



CITY COUNCIL CLOSED & REGULAR SESSION

550 E. Sixth Street, Beaumont, CA

Tuesday, February 01, 2022 Closed Session: 5:00 PM | Regular Meeting: 6:00 PM

Materials related to an item on this agenda submitted to the City Council after distribution of the agenda packets are available for public inspection in the City Clerk's office at 550 E. 6th Street during normal business hours.

AGENDA

MEETING PARTICIPATION NOTICE

This meeting will be conducted utilizing teleconference communications and will be recorded for live streaming as well as open to public attendance subject to social distancing and applicable health orders. All City of Beaumont public meetings will be available via live streaming and made available on the City's official YouTube webpage. Please use the following link during the meeting for live stream access.

beaumontca.gov/livestream

Public comments will be accepted using the following options.

- Written comments will be accepted via email and will be read aloud during the corresponding item of the meeting. Public comments shall not exceed three (3) minutes unless otherwise authorized by City Council. Comments can be submitted anytime prior to the meeting as well as during the meeting up until the end of the corresponding item. Please submit your comments to: <u>nicolew@beaumontca.gov</u>
- Phone-in comments will be accepted by joining a conference line prior to the corresponding item of the meeting. Public comments shall not exceed three (3) minutes unless otherwise authorized by City Council. Please use the following phone number to join the call (951) 922 - 4845.
- 3. In person comments subject to the adherence of the applicable health orders and social distancing requirements.

In compliance with the American Disabilities Act, if you require special assistance to participate in this meeting, please contact the City Clerk's office using the above email or call **(951) 572 - 3196**. Notification 48 hours prior to a meeting will ensure the best reasonable accommodation arrangements.

CLOSED SESSION - 5:00 PM

A Closed Session of the City Council / Beaumont Financing Authority / Beaumont Utility Authority / Beaumont Successor Agency (formerly RDA)/Beaumont Parking Authority / Beaumont Public Improvement Authority may be held in accordance with state law which may include, but is not limited to, the following types of items: personnel matters, labor negotiations, security matters, providing instructions to real property negotiators and conference with legal counsel regarding pending litigation. Any public comment on Closed Session items will be taken prior to the Closed Session. Any required announcements or discussion of Closed Session items or actions following the Closed Session with be made in the City Council Chambers.

CALL TO ORDER

Mayor White, Mayor Pro Tem Martinez, Council Member Fenn, Council Member Santos, Council Member Lara

Public Comments Regarding Closed Session

- 1. Conference with Legal Counsel Regarding Existing Litigation Pursuant to Government Code Section 54956.9(d)(1): Steven Fortier v. City of Beaumont, Riv. Sup. Ct Case No: CVRI 2105608
- 2. Conference with Labor Negotiators Pursuant to Government Code Section 54957.6 City Designated Representatives City Manager Todd Parton and Administrative Services Director Kari Mendoza. Employee Organizations: Police Management and SEIU
- 3. Annual Public Employee Performance Evaluation pursuant to Government Code Section 54957. Title: City Manager
- 4. Conference with Labor Negotiators Pursuant to Government Code Section 54957.6 Agency Designated Representatives: Councilmember Mike Lara and Mayor Pro Tem Julio Martinez. Unrepresented Employee: City Manager

Adjourn to Regular Session

REGULAR SESSION - 6:00 PM

CALL TO ORDER

Mayor White, Mayor Pro Tem Martinez, Council Member Fenn, Council Member Santos, Council Member Lara

Report out from Closed Session Action on any Closed Session Items Action of any Requests for Excused Absence Pledge of Allegiance Invocation Adjustments to the Agenda Conflict of Interest Disclosure

ANNOUNCEMENTS/ RECOGNITION / PROCLAMATIONS / CORRESPONDENCE

PUBLIC COMMENT PERIOD (ITEMS NOT ON THE AGENDA)

Any one person may address the City Council on any matter not on this agenda. If you wish to speak, please fill out a "Public Comment Form" provided at the back table and give it to the City Clerk. There is a three (3) minute time limit on public comments. There will be no sharing or passing of time to another person. State Law prohibits the City Council from discussing or taking actions brought up by your comments.

CONSENT CALENDAR

Items on the consent calendar are taken as one action item unless an item is pulled for further discussion here or at the end of action items. Approval of all Ordinances and Resolutions to be read by title only.

1. Approval of Minutes

Recommended Action:

Approve Minutes dated January 18, 2022

2. Ratification of Warrants

Recommended Action:

Ratify Warrants dated: January 7, 2022, January 13, 2022, and January 20, 2022.

3. Re-Ratification of Local Emergency and Re-Authorizing the Use of Teleconferencing to Conduct Public Meetings

Recommended Action:

Waive the full reading and adopt by title only, "A Resolution of the City Council of the City of Beaumont Proclaiming a Local Emergency Persists, Re-Ratifying the Proclamation of a State of Emergency by Executive Order N-09-21, and Re-Authorizing Remote Teleconference Meetings of the Legislative Bodies of the City of Beaumont for the Period of February 1, 2022, through March 1, 2022, Pursuant to Provisions of the Ralph M. Brown Act."

4. Resolution Approving the City of Beaumont Wastewater Master Plan

Recommended Action:

Waive the full reading and adopt by title only, "A Resolution of the City Council of the City of Beaumont Adoption of the Wastewater Master Plan."

PUBLIC HEARINGS

Approval of all Ordinances and Resolutions to be read by title only.

ACTION ITEMS

Approval of all Ordinances and Resolutions to be read by title only.

5. Contract Amendment with Webb Municipal Finance, LLC for Annual Community Facilities District (CFD) Administration Services, Special Tax Consultant Services and Annual CFD Financial Reporting Services

Recommended Action:

Approve the Second Amendment to the contract with Webb Municipal Finance, LLC.

6. Appointment to the Beaumont Planning Commission

Recommended Action:

Conduct interviews and a nomination process for selection of a Planning Commissioner for the partial term through December 2022.

7. Presentation/Update of the Police Station Feasibility Study and Direction from City Council

Recommended Action:

Approval of the Draft Space Needs Assessment.

8. Approve the Purchase and Installation of Mobile View Camera System on 18 Public Transportation Buses, Not to Exceed \$110,000

Recommended Action:

Approve the purchase of a Mobile View camera system in an amount not to exceed \$110,000 as part of capital improvement project CIP T-08 and authorize City staff to issue a purchase order for the procurement and installation of camera systems on 18 Beaumont Transit buses.

9. Transit Capital Improvement Project Update

Recommended Action:

Receive and file the Transit Capital Improvement update.

10. Update of the Department of Building and Safety

Recommended Action: Receive and file.

11. City Hall Renovation Update

Recommended Action:

Receive and file the Capital Improvement City Hall Update.

12. Collections System CIP Project Update

Recommended Action:

Receive and file the Collection System CIP Project Update.

<u>13.</u> First Amendment of an Agreement to Extend the Contract for Professional Services with Burrtec Waste Industries, Inc., to Provide Sludge Hauling Services for the Wastewater Treatment Plant

Recommended Action:

Approve the first amendment of an agreement to extend the existing contract for professional services with Burrtec Waste Industries, Inc., to provide sludge hauling services for the WWTP through April 30, 2023.

14. Authorize Preliminary Discussions with the Beaumont – Cherry Valley Recreation & Park Improvement Corporation (Corporation) on a Collaborative Effort to Develop a Park Facility on 123 Acres on the North Side of Cherry Valley Boulevard and Formerly Known as the Danny Thomas Ranch

Recommended Action:

It is recommended that the City Council:

Agree to begin preliminary discussions with the Beaumont – Cherry Valley Recreation and Park Improvement Corporation (Corporation) to explore how a future park facility at the Danny Thomas Ranch (DTR) site might mutually benefit both agencies,

Appoint two City Council members to a 2 by 2 committee to meet with representatives of the Corporation, and

Provide a report to the City Council when the City/District discussions have yielded tangible results.

15. Authorize Fifth Amendment to the City Manager Employment Agreement

Recommended Action:

Authorize the Mayor to execute the Fifth Amendment to the City Manager Employment Agreement.

LEGISLATIVE UPDATES AND DISCUSSION

ECONOMIC DEVELOPMENT UPDATE

Economic Development Committee Report Out and City Council Direction

CITY TREASURER REPORT

Finance and Audit Committee Report Out and City Council Direction

CITY CLERK REPORT

CITY ATTORNEY REPORT

CITY MANAGER REPORT

16. December 2021 Department Project Updates

FUTURE AGENDA ITEMS

COUNCIL REPORTS

- Lara
- Santos
- Fenn
- Martinez
- White

ADJOURNMENT

The next regular meeting of the Beaumont City Council, Beaumont Financing Authority, the Beaumont Successor Agency (formerly RDA), the Beaumont Utility Authority, the Beaumont Parking Authority and the Beaumont Public Improvement Agency is scheduled for Tuesday, February 15 2022, at 5:00 p.m., unless otherwise posted.



CITY COUNCIL CLOSED & REGULAR SESSION

550 E. Sixth Street, Beaumont, CA

Tuesday, January 18, 2022 Closed Session: 5:00 PM | Regular Meeting: 6:00 PM

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MINUTES

CLOSED SESSION - 5:00 PM

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CALL TO ORDER at 5:01

Present: Mayor White, Mayor Pro Tem Martinez, Council Member Fenn, Council Member Santos, Council Member Lara

Public Comments Regarding Closed Session

No comments.

1. Conference with Legal Counsel – Anticipated Litigation: Significant Exposure to Litigation Pursuant to Government Code Section 54956.9(d)(2) - Claim by Weka, Inc.

No reportable action.

2. Conference with Legal Counsel Regarding Potential Initiation of Litigation Pursuant to Government Code Section 54956.9(d)(4): One Potential Case

Correction: Conference with Legal Counsel Regarding Potential Exposure of Litigation Pursuant to Government Code Section 54956.9(d)(4): One Potential Case

No reportable action

 Conference with Legal Counsel - Anticipated Litigation Significant to Litigation Pursuant to Paragraph (2) or (3) of subdivision (d) of Section 54956.9 - Mozafar Behzad, Hamid Roknian and Rozita Roknian: Tract 32850.

No reportable action.

4. Conference with Labor Negotiators Pursuant to Government Code Section 54957.6 Agency Designated Representatives: Councilmember Mike Lara and Mayor Pro Tem Julio Martinez. Unrepresented Employee: City Manager

No reportable action. Item to be discussed after regular session.

REGULAR SESSION - 6:00 PM

CALL TO ORDER at 7:35 p.m.

Present: Mayor White, Mayor Pro Tem Martinez, Council Member Fenn, Council Member Santos, Council Member Lara

Report out from Closed Session: *see above* Action on any Closed Session Items: **None** Action of any Requests for Excused Absence: **None** Pledge of Allegiance Adjustments to the Agenda: **None** Conflict of Interest Disclosure: **None**

PUBLIC COMMENT PERIOD (ITEMS NOT ON THE AGENDA)

S. Pavka - Raised concerns for traffic control to avoid collisions at 7th and Egan.

CONSENT CALENDAR

Items on the consent calendar are taken as one action item unless an item is pulled for further discussion here or at the end of action items. Approval of all Ordinances and Resolutions to be read by title only.

1. Approval of Minutes

Recommended Action:

Approve Minutes dated: December 21, 2021, and January 4, 2022.

2. Ratification of Warrants

Recommended Action:

Ratify Warrants dated: December 22, 2021, and December 30, 2021.

3. Quarterly Status of City Council Travel and Training Reimbursements

Recommended Action: Receive and file.

4. Approval of Corrected Gann Limit for FY2021 and FY2022

Recommended Action:

Waive the full reading and adopt by title only a "Resolution of the City Council of the City of Beaumont, approving the Appropriation Limit for the 2020-21 and 2021-22 Fiscal Years."

 Accept Security Agreement and Performance and Payment Bond No. CMS0346632 for Street Improvements Associated with Tract Map No. 27971-9 and Accept Security Agreement and Performance and Payment Bond No. 30128141 for Street Improvements Associated with Tract Map No. 36307

Recommended Action:

Accept Security Agreement and Performance and Payment Bond No. CMS0346632 for street improvements associated with Tract Map No. 27971-9, and Accept Security Agreement and Performance and Payment Bond No. 30128141 for street improvements associated with Tract Map No. 36307.

6. FY2022 General Fund and Wastewater Budget to Actual through December 2021, and Second Quarter Investment Report and Certification

Recommended Action: Receive and file the attached reports.

7. Consider Adopting a Resolution Waiving the Facility Use and Staff Fees at the Albert A. Chatigny Sr. Community Recreation Center (CRC) for Boy Scout Troop 322

Recommended Action:

Waive the full reading and adopt by title only, "A Resolution of the City of Beaumont Authorizing the Waiver of a One-Time Facility Use Fee at the Albert A. Chatigny Sr. Community Recreation Center (CRC) for Boy Scout Troop 322."

Motion by Council Member Lara Second by Mayor White

To approve the Consent Calendar.

ACTION ITEMS

Approval of all Ordinances and Resolutions to be read by title only.

8. FY2021 Annual Comprehensive Financial Report and Report of Internal Control Over Financial Reporting

Motion by Council Member Lara Second by Council Member Santos

To receive and file the FY2021 Annual Comprehensive Report and associated reports.

Approved by a unanimous vote.

Consensus to move item 18 up for discussion.

18. Rangel Park Update

Public Comment:

L Rios – Asked for a timeline of Rangel Park improvements and raised concerns with removing the trees.

Direction to staff to prioritize the park amenities to be the baseball field, playscape and basketball and target the budget of \$1,367,213.

9. FY2022 Mid-Year Budget Amendment 3/CIP/Wastewater/General Fund and Ratification of Emergency Wastewater Vehicle Purchase

Motion by Council Member Lara Second by Mayor White

To approve the Capital Improvement Plan budget adjustments as outlined in Attachment A, approve the budget adjustments as outlined in Attachment B, approve the budget adjustments as outlines in Attachment C, and ratify the cost of emergency vehicle purchase paid to Fritts Ford in the amount of \$41,943.78.

Approved by a unanimous vote.

10. Pension Funding Policy and Investment Strategy for PARS 115 Trust

Motion by Council Member Lara Second by Council Member Santos

To approve Example 2 of the pension funding policy with an active moderate investment strategy for the PARS 115 Trust.

Approved by a unanimous vote.

11. Traffic Signal Update for the First Street and Highway 79 Intersection, and the Sixth Street and Beaumont Avenue Intersection

Motion by Mayor White Second by Council Member Lara

To receive and File the Traffic Signal Update for the First Street and Highway 79 Intersection, and the Sixth Street and Beaumont Avenue Intersection Project.

Approved by a unanimous vote.

12. Capital Improvement Drainage Projects Update

Motion by Council Member Lara Second by Mayor White To receive and file the Capital Improvement Drainage Projects Update.

Approved by a unanimous vote.

13. Community Development Department Update

Consensus to receive and file.

14. Adoption of a Resolution Authorizing the City Manager to Accept the Offer of Dedication for Park Purposes and Approve a Park Dedication Agreement between the City of Beaumont and SDC Fairway Canyon, LLC, for Mickelson Park (APN 413-801-012)

Motion by Mayor White Second by Council Member Santos

To waive the full reading and adopt by title only, "A Resolution of the City of Beaumont Authorizing the City Manager to Accept the Offers of Dedication for Park Purposes," and authorize City staff to record the certificate of acceptance of an interest in real property by the City of Beaumont, and authorize a Park Dedication Agreement between the City of Beaumont and SDC Fairway Canyon, LLC, for Mickelson Park (APN 413-801-012) and authorize the City Manager to execute the agreement on behalf of the City of Beaumont.

Approved by a unanimous vote.

15. Homeless Outreach Approach for Beaumont

Motion by Mayor White Second by Mayor Pro Tem Martinez To receive and file.

Approved by a unanimous vote.

16. Request City Council to Approve the Memorandum of Understanding between the City of Beaumont and Managers/Professional/Technical as Individuals.

Motion by Council Member Lara Second by Mayor White

To approve the Memorandum of Understanding between the City of Beaumont and Managers/Professional/Technical as Individuals and authorize the City Manager to execute the agreement.

Approved by a unanimous vote.

17. Approve the Draft Request for Proposal for Landscape Architecture and Engineering Design Services and Construction Documents for Stewart Park Improvement Project

Consensus to approve the draft Request for Proposals for Landscape Architecture and Engineering Design Services and Construction Documents for Stewart Park Improvement Project and direct City staff to publish the document on PublicPurchase.com.

19. Discussion and Direction to City Staff Regarding Updates to the City of Beaumont Development Impact Fee (DIF) Program

Motion by Council Member Lara Second by Mayor Pro Tem White

To direct City staff to begin preparing requests for proposals (RFPs) for the impact fee nexus studies; direct City staff to include updates to the DIF nexus studies and the DIF program in the FY2022-2023 budget; and add an item on the next City Council agenda to discuss updates to the City's DIF program.

Approved by a unanimous vote.

20. Review of Local Emergency Declaration Established via the Adoption of City of Beaumont Resolution No. 2020-07 Adopted on March 17, 2020

No action by City Council.

21. Approval of City Attorney Invoices for the Month of December 2021

City Attorney John Pinkney recused himself from the item.

Motion by Council Member Lara Second by Mayor White

To approve invoices in the amount of \$135,795.98.

Approved by a unanimous vote.

LEGISLATIVE UPDATES AND DISCUSSION

ECONOMIC DEVELOPMENT UPDATE

Economic Development Committee meeting report out. Next meeting to be held on February 9.

CITY TREASURER REPORT

Finance and Audit Committee meeting report out.

CITY CLERK REPORT

Report of the public records requests for the month of December 2021.

CITY ATTORNEY REPORT

Update of current litigation.

CITY MANAGER REPORT

Thanked the Finance staff for their work to complete the ACFR for the City.

FUTURE AGENDA ITEMS

- MOU with the Cherry Valley Parks and Rec District in regard to the Danny Thomas Ranch

- Traffic speed program to address concerns from the public

COUNCIL REPORTS

Lara - Attended the WRCOG meeting and thanked the Public information department.
Santos - Attended the Calimesa Chamber of Commerce Installation Dinner.
Fenn - Attended the T-Now meeting and the East Valley Real Estate Meeting.
Martinez - Attended a Cal Cities meeting and the RCA Meeting.
White - Attended the ribbon cutting for One Realty.

Adjournment to Closed Session to discuss Item 4.

4. Conference with Labor Negotiators Pursuant to Government Code Section 54957.6 Agency Designated Representatives: Councilmember Mike Lara and Mayor Pro Tem Julio Martinez. Unrepresented Employee: City Manager

No reportable action.

Adjournment at 11:12 p.m.

The next regular meeting of the Beaumont City Council, Beaumont Financing Authority, the Beaumont Successor Agency (formerly RDA), the Beaumont Utility Authority, the Beaumont Parking Authority and the Beaumont Public Improvement Agency is scheduled for Tuesday, February 1, 2022, at 5:00 p.m., unless otherwise posted.

Beaumont City Hall – Online <u>www.BeaumontCa.gov</u>

AGENDA ITEM NO.

Item 2.



WARRANTS TO BE RATIFIED

Friday, January 7, 2022

Printed Checks	110905	\$ 3.494.60	Utility Refund
	110906-110909	\$ 4.741.00	FY 21/22
АСН	550	\$ 18,907,56	
NvoicePay	APA000246-APA000264	\$ 23.047.92	:
	A/P Total	\$ 46,696.48	• !
Bank Drafts	Global Payments	\$ 1,460,40	Credit Card Fees
	Affant	\$ 650,75	22-Jan
	Kaiser Foundation	\$ 178.00	HSA Paydate 12/31/21
	Authnet Gateway	\$ 62,60	Credit Card Processing Fee
	Wilmington Trust	\$ 21,168.48	CFD Prepayment

1 DO HEREBY CERTIFY THIS WARRANT LIST HAS BEEN COMPILED AND PREPARED TO MEET THE DAILY OPERATIONS FOR THE FISCAL YEAR JULY 1, 2021 - JUNE 30, 2022

SIGNATURE: • • TITLE: CITY TREASURER SIGNATURE: TITLE: FINANCE DIRECTOR





By Check Number

Date Range: 12/31/2021 - 01/07/2022

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Check Report Vendor Number

Vendor Name

Date Range; 12/31/2021

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Item 2.

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Date Range: 12/31/2021

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24137461322500	Invoice <u>100-3250-7012-0000</u>	01/05/2022 BMT DO IT BEST - STREET LIGHT MAINTE STREET LIGHT MAINTENA BMT DO IT BEST - STREET LIGHT
24137461322500	Invoice <u>100-0000-2026-0000</u>	01/06/2022 BMT DO IT BEST - ACCOUNTS PAYABLE SUSP BMT DO IT BEST -
<u>24137461323500</u>	Invoice <u>700-4050-7070-0000</u>	01/06/2022 BMT DO IT BEST - DEPT SUPPLIES SPECIAL DEPT SUPPLIES BMT DO IT BEST - DEPT SUPPLIE
<u>24137461327500</u>	Involce <u>750-7300-7085-0000</u>	01/06/2022 BMT DO IT BEST - BUILDING MAINTENAN BUILDING SUPPLIES/MAI BMT DO IT BEST - BUILDING MA
24137461327500	Involce <u>700-4050-7070-0000</u>	01/06/2022 BMT DO IT BEST - DEPT SUPPLIES SPECIAL DEPT SUPPLIES BMT DO IT BEST - DEPT SUPPLIE
<u>24137461328501</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 BMT DO IT BEST - ACCOUNTS PAYABLE SUSP BMT DO IT BEST -
<u>24137461329501</u>	Invoice <u>100-1550-7040-0000</u>	01/06/2022 STATER BROS - COMMUNITY EVENT RECREATION PROGRAMS STATER BROS - COMMUNITY EV
<u>24137461329501</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 BMT DO IT BEST - ACCOUNTS PAYABLE SUSP BMT DO IT BEST -
24137461335200	Invoice <u>100-1550-7040-0000</u>	01/06/2022 HOBBY LOBBY - COMMUNITY EVENT SUP RECREATION PROGRAMS HOBBY LOBBY - COMMUNITY EV
<u>24137461336500</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 BMT DO IT BEST - ACCOUNTS PAYABLE SUSP BMT DO IT BEST -
<u>24137461337500</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 BMT DO IT BEST - ACCOUNTS PAYABLE SUSP BMT DO IT BEST -
<u>24137461340500</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 BMT DO IT BEST - ACCOUNTS PAYABLE SUSP BMT DO IT BEST -
<u>24137461342500</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 STATER BROS - ACCOUNTS PAYABLE SUSP STATER BROS -
<u>24137461343500</u>	Invoice <u>700-4050-7070-0000</u>	01/06/2022 BMT DO IT BEST - DEPT SUPPLIES SPECIAL DEPT SUPPLIES BMT DO IT BEST - DEPT SUPPLIE
<u>24137461345501</u>	Invoice <u>700-4050-7070-0000</u>	01/06/2022 BMT DO IT BEST - DEPT SUPPLIES SPECIAL DEPT SUPPLIES BMT DO IT BEST - DEPT SUPPLIE
<u>24164071322105</u>	Involce <u>700-4050-7070-0000</u>	01/06/2022 STAPLES - DEPT SUPPLIES SPECIAL DEPT SUPPLIES STAPLES - DEPT SUPPLIES
<u>24164071343105</u>	Invoice <u>100-1550-7040-0000</u>	01/06/2022 QUILL - COMMUNITY EVENT SUPPLIES RECREATION PROGRAMS QUILL - COMMUNITY EVENT SU
<u>24204291316000</u>	Invoice <u>100-2050-7050-000E</u>	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING
<u>24204291318000</u>	Invoice <u>100-2050-7050-000E</u>	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING
24204291319000	Invoice <u>100-2050-7050-000E</u>	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING
<u>24204291342012</u>	Invoice <u>700-4050-7030-0000</u>	01/06/2022 DROPBOX - ANNUAL SUBSCRIPTION DUES & SUBSCRIPTIONS DROPBOX - ANNUAL SUBSCRIPT
<u>24204291343000</u>	Invoice <u>100-2050-7050-000E</u>	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING
<u>24204291344656</u>	Invoice 100-2050-7050-000E	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING
<u>24226381321360</u>	Involce <u>700-4050-7070-0000</u>	01/06/2022 WALMART - DEPT SUPPLIES SPECIAL DEPT SUPPLIES WALMART - DEPT SUPPLIES
<u>24226381326360</u>	Invoice <u>100-1550-7030-0000</u>	01/06/2022 SAMSCLUB MEMBERSHIP RENEWAL DUES & SUBSCRIPTIONS SAMSCLUB MEMBERSHIP RENE
<u>24226381328360</u>	Invoice	01/04/2022 WALMART - COMMUNITY EVENT SUPPLIE

Chock Poppet				
Check Report Vendor Number	Vendor Name	Payment Date Payment Type		Date Range: 12/31/2021 ht Payment Amount N
	<u>100-1550-7040-0000</u>	RECREATION PROGRAMS WALMART - COMMUNI		121.20
<u>24226381344370</u>	Invoice	01/06/2022 SAMS CLUB - COMMUNITY EVENT SUPPLI	0.00	156.61
	<u>100-1550-7040-0000</u>	RECREATION PROGRAMS SAMS CLUB - COMMUN	VITY EVE	156.61
<u>24231681320837</u>	Invoice	01/06/2022 SMART & FINAL - COMMUNITY EVENT	0.00	27.97
	<u>100-1550-7030-0000</u>	DUES & SUBSCRIPTIONS SMART & FINAL - COMI	MUNITY	27.97
<u>24231681321837</u>	Invoice	01/06/2022 SMART & FINAL - DEPT SUPPLIES	0.00	80.75
	<u>700-4050-7085-0000</u>	BUILDING SUPPLIES/MAI SMART & FINAL - DEPT	SUPPLIE	80.75
24231681342837	Invoice	01/06/2022 SMART AND FINAL - BUILDING MAINTEN	0.00	43.59
	<u>700-4050-7085-0000</u>	BUILDING SUPPLIES/MAI SMART AND FINAL - BU	ILDING	43.59
<u>24251381343030</u>	Invoice	01/06/2022 BMT SAFE & LOCK - BUILDING MAINTENA	0.00	10.72
	<u>700-4050-7085-0000</u>	BUILDING SUPPLIES/MAI BMT SAFE & LOCK - BUI	LDING	10.72
24251381346030	Invoice <u>100-0000-2026-0000</u>	01/06/2022 BMT SAFE & LOCK - ACCOUNTS PAYABLE SUSP BMT SAFE & LOCK -	0.00	б.44 б.44
24323031315006	Invoice	01/06/2022 ONTARIO AIRPORT PARKING - EMPLOYEE	0.00	54.00
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA ONTARIO AIRPORT PARK	KING - E	54.00
<u>24323031315006</u>	Invoice	01/06/2022 ONTARIO AIRPORT PARKING	0.00	54.00
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA ONTARIO AIRPORT PAR	KING	54.00
<u>24323031315006</u>	Invoice	01/06/2022 ONT AIRPORT PARKING - EMPLOYEE TRAV	0.00	42.00
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP ONT AIRPORT PARKING	- EMPLO	42.00
<u>24323041322227</u>	Invoice	01/06/2022 EMBASSY SUITES PHOENIX - TRAVEL	0.00	114.91
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA EMBASSY SUITES PHOE	NIX - TRA	114.91
<u>24323041323220</u>	Invoice	01/06/2022 EMBASSY SUITES PHOENIX - TRAVEL	0.00	258.91
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA EMBASSY SUITES PHOEN	NIX - TRA	258.91
<u>24323041323220</u>	Invoice	01/06/2022 EMBASSY SUITES PHOENIX - EMPLOYEE T	0.00	286.91
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP EMBASSY SUITES PHOEI	VIX - EM	286.91
<u>24342851315017</u>	Invoice	01/05/2022 MESA FRESCA OREGON - TRAVEL MEAL	0.00	49.00
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA MESA FRESCA OREGON	- TRAVE	49.00
<u>24342851322017</u>	Involce	01/06/2022 KEEGAN GRILL - TRAVEL MEAL	0.00	57.60
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA KEEGAN GRILL - TRAVEL	. MEAL	57.60
<u>24388941343939</u>	Invoice	01/06/2022 CSULB - EMPLOYEE TRAINING	0.00	454.00
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA CSULB - EMPLOYEE TRA	INING	454.00
<u>24388941343939</u>	Invoice	01/06/2022 CSULB SERVICE FEE - EMPLOYEE TRAININ	0.00	12.03
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA CSULB SERVICE FEE - EM	IPLOYEE	12.03
<u>24399001326295</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 BEST BUY - ACCOUNTS PAYABLE SUSP BEST BUY -	0.00	772.48 772.48
<u>24431051328838</u>	Invoice	01/06/2022 O'REILLY'S - EQUIPMENT MAINTENANCE	0.00	40.91
	<u>700-4050-7090-0000</u>	EQUIPMENT SUPPLIES/M O'REILLY'S - EQUIPMENT	MAINT	40.91
<u>24431061322400</u>	Invoice	01/06/2022 PALM SPRINGS AIRPORT PARKING	0.00	40.00
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA PALM SPRINGS AIRPORT	PARKIN	40.00
<u>24431061322400</u>	Involce	01/06/2022 PALM SPRINGS AIRPORT PARKING - EMPL	0.00	40.00
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP PALM SPRINGS AIRPORT	PARKIN	40.00
<u>24431061337207</u>	Invoice	01/06/2022 RANGE - EMPLOYEE TRAINING	0.00	125.00
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA RANGE - EMPLOYEE TRA	INING	125.00
<u>24431061344036</u>	Invoice	01/06/2022 HILTON GARDEN INN BURBANK - EMPLOY	0.00	393.92
	<u>100-2050-7066-0000</u>	TRAVEL, EDUCATION, TRA HILTON GARDEN INN BU	RBANK	393.92
<u>24435651329762</u>	Invoice	01/06/2022 GALLS - EMPLOYEE UNIFORM	0.00	160.15
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP GALLS - EMPLOYEE UNIF	ORM	160.15
<u>24445001321400</u>	Invoice	01/06/2022 WALMART - DEPT SUPPLIES	0.00	29.72
	<u>700-4050-7070-0000</u>	SPECIAL DEPT SUPPLIES WALMART - DEPT SUPPL	LIES	29.72
<u>24445001335400</u>	Invoice	01/06/2022 WALMART - COMMUNITY EVENT SUPPLIE	0.00	52.80
	100-1550-7040-0000	RECREATION PROGRAMS WALMART - COMMUNIT	Y EVEN	52,80
24445001336001	Invoice	01/06/2022 DOLLAR TREE - COMMUNITY EVENT SUPP	0.00	60.64
<u></u> .		•	<u>.</u>	

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Check Report					D	ate Range: 12/31/2021	
Vendor Number	Vendor Name <u>100-1550-7040-0000</u>	RECRE	=	Payment Type D DOLLAR TREE - COMMUNITY EV		Payment Amount 1 60.64	Item 2.
<u>24483471321000</u>	Invoice <u>100-2050-7050-000E</u>	01/06/2022 EV CHA	TESLA - VEHICLE CI ARGING EXPENSE	HARGING TESLA - VEHICLE CHARGING	0.00	9.99 9.99	
<u>24483471337000</u>	Invoice <u>100-2050-7050-000E</u>	01/06/2022 EV CHA	TESLA - VEHICLE CI ARGING EXPENSE	HARGING TESLA - VEHICLE CHARGING	0,00	20.64 20.64	
<u>24483471339000</u>	Invoice <u>100-2050-7050-000E</u>	01/06/2022 EV CHA	TESLA - VEHICLE CI ARGING EXPENSE	HARGING TESLA - VEHICLE CHARGING	0.00	10.80 10.80	
<u>24483471344679</u>	Invoice <u>100-2050-7050-000E</u>	01/05/2022 EV CHA	TESLA - VEHICLE CH ARGING EXPENSE	HARGING TESLA - VEHICLE CHARGING	0.00	6.30 6.30	
<u>24492151315894</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 ACCOU	PAYPAL - FANDANG INTS PAYABLE SUSP	GO PAYPAL - FANDANGO	0.00	8.12 8.12	
<u>24492151340719</u>	Invoice <u>750-7300-7037-0000</u>	01/06/2022 VEHICL	ZONAR - BATTERIE E MAINTENANCE	S ZONAR - BATTERIES	0.00	69.56 69.56	
<u>24492161324000</u>	Credit Memo <u>100-0000-2026-0000</u>	01/06/2022 ACCOU	CALCITIES REGISTR	ATION CALCITIES REGISTRATION	0.00	-500.00 -500.00	
<u>24492161341000</u>	Invoice <u>100-1200-7070-0000</u>	01/06/2022 SPECIA	FLIPSNACK.COM - 5 L DEPT SUPPLIES	SOFTWARE FOR DIGITA FLIPSNACK.COM - SOFTWARE F	0.00	420.00 420.00	
<u>24559301341900</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 ACCOU	CA SOCIETY OF MU	INICIPALITY - CA SOCIETY OF MUNICIPALITY -	0.00	400.00 400.00	
<u>24692161315100</u>	Invoice <u>100-2050-7066-0000</u>	01/06/2022 TRAVEL		VEGAS - TRAVEL MEAL JOSE CUERVO LAS VEGAS - TRAV	0,00 V	36.72 36.72	
<u>24692161317100</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 ACCOU	HOME DEPOT - NTS PAYABLE SUSP	Home depot -	0.00	.84.10 84.10	
<u>24692161318100</u>	Invoice <u>100-2050-7066-0000</u>	01/06/2022 TRAVEL		IS FOR BIKE PATROL TR AMAZON - SUPPLIES FOR BIKE P	0.00	116.28 116.28	
<u>24692161320100</u>	Invoice 700-4050-7070-0000	01/06/2022 SPECIA	HOME DEPOT - DEF L DEPT SUPPLIES	PT SUPPLIES HOME DEPOT - DEPT SUPPLIES	0.00	96.95 96.95	
<u>24692161322100</u>	Invoice <u>100-2050-7066-0000</u>	01/06/2022 TRAVEL	LITTLE MISS BBQ - 1 ., EDUCATION, TRA		0.00	70.58 70.58	
24692161322100	Invoice <u>100-2050-7066-0000</u>	01/06/2022 TRAVEL	•	HEONIX - TRAVEL MEA LITTLE MISS BBQ PHEONIX - TRA	0.00	5.16 5.16	
<u>24692161327100</u>	Invoice <u>100-2050-7037-0000</u>	01/06/2022 VEHICL		ET - VEHICLE MAINTEN GOSCH FORD HEMET - VEHICLE	0.00	159,00 159.00	
<u>24692161327100</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 ACCOU	HOME DEPOT - NTS PAYABLE SUSP	HOME DEPOT -	0.00	234.15 234.15	
<u>24692161329100</u>	Invoice <u>100-1200-7030-0000</u>	01/06/2022 DUES &		- MONTHLY SUBSCRIPT WALL ST JOURNAL - MONTHLY S	0.00	4.00 4.00	
<u>24692161335100</u>	Invoice <u>100-0000-2026-0000</u>		HOME DEPOT - NTS PAYABLE SUSP	HOME DEPOT -	0.00	81.83 81.83	
<u>24692161335100</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 ACCOU	HOME DEPOT - NTS PAYABLE SUSP	HOME DEPOT -	0.00	90.38 90.38	
<u>24692161336100</u>	Involce <u>100-0000-2026-0000</u>	• •	HOME DEPOT • NTS PAYABLE SUSP	HOME DEPOT -	0.00	317.73 317.73	
<u>24692161337100</u>	Invoice 100-0000-2026-0000	01/06/2022 ACCOU	AMAZON - NTS PAYABLE SUSP	AMAZON -	0.00	69.92 69.92	
<u>24692161337100</u>	Invoice <u>100-0000-2026-0000</u>	01/06/2022 ACCOUI	AMAZON - NTS PAYABLE SUSP	AMAZON -	0.00	202.95 202.95	
<u>24692161340100</u>	Invoice 700-4050-7070-0000	, .		SOLUTIONS - DEPT SU AMERICAN OFFICE SOLUTIONS -	0.00	22.90 22.90	
<u>24692161343100</u>	Invoice 100-2050-7066-0000	01/06/2022 TRAVEL,		G CENTER - EMPLOYEE REGIONAL TRAINING CENTER - E	0.00	540.75 540.75	
<u>24692161343100</u>	Invoice	01/06/2022	REGIONAL TRAINING	S CENTER - EMPLOYEE	0.00	540.75	

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Vendor Number	Vendor Name <u>100-2050-7066-0000</u>	Payment Date Payment Type Discour TRAVEL, EDUCATION, TRA REGIONAL TRAINING CENTER - E	nt Amount Payment Amou	
<u>24707801321030</u>	Invoice	01/06/2022 WORLD OF ASPHALT - EMPLOYEE TRAININ	540.75 0.00 531.00	
<u>24717051342173</u>	<u>100-3100-7066-0000</u> Invoice	TRAVEL, EDUCATION, TRA WORLD OF ASPHALT - EMPLOYE 01/06/2022 TITAN TIRE RECYCLING - STREET LIGHT M	531.00 0.00 162.72	
24793381315000	<u>100-3250-7012-0000</u> Invoice	STREET LIGHT MAINTENA TITAN TIRE RECYCLING - STREET 01/06/2022 TESLA - VEHICLE CHARGING	162.72 0.00 11.47	
	100-2050-7050-000E	EV CHARGING EXPENSE TESLA - VEHICLE CHARGING	11.47	
<u>24793381316000</u>	100-2050-7050-000E	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING	0.00 9.25 9.25	
<u>24793381317000</u>	Invoice 100-2050-7050-000E	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING	0.00 9.99 9.99	
24793381317000	Invoice <u>100-2050-7050-000E</u>	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING	0.00 11.66	
24793381320000		01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING	0.00 11.28	
24793381323000	Invoice	01/05/2022 TESLA - VEHICLE CHARGING	0.00 4.81	
24793381329000	<u>100-2050-7050-000E</u> Invoice	EV CHARGING EXPENSE TESLA - VEHICLE CHARGING 01/06/2022 TESLA - VEHICLE CHARGING	4.81 0.00 10.56	
24793381329000	100-2050-7050-000E	EV CHARGING EXPENSE TESLA - VEHICLE CHARGING 01/06/2022 TESLA - VEHICLE CHARGING	10.56 0.00 5.28	
	100-2050-7050-000E	EV CHARGING EXPENSE TESLA - VEHICLE CHARGING	5.28	
<u>24793381330000</u>	Invoice <u>100-2050-7050-0000</u>	01/06/2022 TESLA - VEHICLE CHARGING FUEL TESLA - VEHICLE CHARGING	0.00 7.40 7.40	
<u>24793381334563</u>	Invoice <u>100-2050-7066-0000</u>	01/06/2022 GET SAFE USA - EMPLOYEE TRAINING TRAVEL, EDUCATION, TRA GET SAFE USA - EMPLOYEE TRAI	0.00 150.00 150.00	
<u>24793381336000</u>	Involce <u>100-2050-7050-000E</u>	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING	0.00 20.72 20.72	
24793381341000	Invoice 100-2050-7050-000E	01/06/2022 TESLA - VEHICLE CHARGING EV CHARGING EXPENSE TESLA - VEHICLE CHARGING	0.00 11.47 11.47	
24793381345000	-		0.00 9.99 9.99	
24793381346000	Invoice	01/06/2022 TESLA - VEHICLE CHARGING	0.00 16.80	
<u>24801971327726</u>	<u>100-2050-7050-000E</u> Invoice	EV CHARGING EXPENSE TESLA - VEHICLE CHARGING 01/06/2022 SIGNS.COM - COMMUNITY EVENT SUPPLI	16.80 0.00 278.57	
<u>24801971335726</u>	<u>100-1550-7040-0000</u> Invoice	RECREATION PROGRAMS SIGNS.COM - COMMUNITY EVE 01/06/2022 SIGNS.COM - DEPT SUPPLIES	278.57 0.00 108.40	
	<u>100-1200-7070-0000</u>	SPECIAL DEPT SUPPLIES SIGNS.COM - DEPT SUPPLIES	108.40	
<u>24801971336690</u>	<u>700-4050-7066-0000</u>	01/06/2022 CALIFORNIA WATER ENVIRONMENT - EM TRAVEL, EDUCATION, TRA CALIFORNIA WATER ENVIRONM	0.00 50.00 50.00	
<u>24801971340690</u>	Invoice 700-4050-7066-0000	01/06/2022 CA WATER ENVIRONMENTAL - EMPLOYEE TRAVEL, EDUCATION, TRA CA WATER ENVIRONMENTAL - E	0.00 50.00 50.00	
24801971342690	Invoice <u>700-4050-7030-0000</u>	01/06/2022 CWEA - MEMBERSHIP RENEWAL DUES & SUBSCRIPTIONS CWEA - MEMBERSHIP RENEWAL	0.00 267.00 267.00	
<u>24941351323825</u>	Invoice 100-0000-2026-0000	01/06/2022 AVIS RENT-A-CAR - EMPLOYEE TRAVEL ACCOUNTS PAYABLE SUSP AVIS RENT-A-CAR - EMPLOYEE T	0.00 733.27 733.27	
24943001315036	Invoice 100-0000-2026-0000		0.00 183.55 183.55	
<u>24943001315036</u>	Invoice	01/06/2022 EMBASSY SUITES HILLSBORO - TRAVEL	0.00 183.55	
<u>24943001315978</u>		TRAVEL, EDUCATION, TRA EMBASSY SUITES HILLSBORO - T 01/06/2022 AMERICAN AIRLINES - TRAVEL MENDOZA	183.55 0.00 126.00	
<u>24943001322978</u>	<u>100-0000-2026-0000</u> Invoice	ACCOUNTS PAYABLE SUSP AMERICAN AIRLINES - TRAVEL 01/06/2022 AMERICAN AIRLINES - EMPLOYEE TRAVEL	126.00 0.00 141.40	

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Vendor Number	Vendor Name <u>100-0000-2026-0000</u>	Payment Date Payment Type Discount ACCOUNTS PAYABLE SUSP AMERICAN AIRLINES - EMPLOYE	Amount Payment Amount I 141.40
<u>24943011315010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	.00 9.43
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	9.43
<u>24943011315010</u>	Invoice	01/06/2022 HOME DEPOT - 0	.00 11.83
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	11.83
<u>24943011319010</u>	Invoice	01/06/2022 HOME DEPOT - BUILDING MAINTENANCE 0.	.00 36.38
	700-4050-7085-0000	BUILDING SUPPLIES/MAI HOME DEPOT -	36.38
<u>24943011320010</u>	Invoice	01/06/2022 HOME DEPOT - STREET LIGHT MAINTENA 0.	.00 123.56
	<u>100-3250-7012-0000</u>	STREET LIGHT MAINTENA HOME DEPOT - STREET LIGHT M	123.56
<u>24943011320010</u>	Invoice	01/06/2022 HOME DEPOT - DEPT SUPPLIES 0.	.00 32.59
	<u>700-4050-7070-0000</u>	SPECIAL DEPT SUPPLIES HOME DEPOT - DEPT SUPPLIES	32.59
<u>24943011321010</u>	Invoice	01/06/2022 HOME DEPOT - DEPT SUPPLIES 0.	.00 51.62
	<u>700-4050-7070-0000</u>	SPECIAL DEPT SUPPLIES HOME DEPOT - DEPT SUPPLIES	51.62
<u>24943011321010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	.00 64.12
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	64.12
<u>24943011321010</u>	Invoice	01/06/2022 HOME DEPOT - EQUIPMENT MAINTENAN 0.	.00 23.44
	<u>700-4050-7090-0000</u>	EQUIPMENT SUPPLIES/M HOME DEPOT - EQUIPMENT MA	23.44
<u>24943011322010</u>	invoice	01/06/2022 HOME DEPOT - 0.	.00 24.21
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	24.21
<u>24943011323010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	.00 64.03
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	64.03
<u>24943011335010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	00 21.46
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	21.46
<u>24943011336010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	00 4.28
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	4.28
<u>24943011341010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	00 19.37
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	19.37
<u>24943011342010</u>	Invoice	01/06/2022 HOME DEPOT - DEPT SUPPLIES 0.	00 11.83
	<u>700-4050-7070-0000</u>	SPECIAL DEPT SUPPLIES HOME DEPOT - DEPT SUPPLIES	11.83
<u>24943011342010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	00 53.16
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	53.16
<u>24943011342010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	00 1.03
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	1.03
<u>24943011342010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	00 113.47
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	113.47
<u>24943011342010</u>	Invoice <u>700-4050-7070-0000</u>	SPECIAL DEPT SUPPLIES HOME DEPOT - DEPT SUPPLIES	00 37.68 37.68
<u>24943011343010</u>	Invoice	01/06/2022 HOME DEPOT - 0.	00 62.43
	<u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	62.43
<u>24943011343010</u>	Involce	01/06/2022 HOME DEPOT - DEPT SUPPLIES 0.	00 29.09
	<u>700-4050-7070-0000</u>	SPECIAL DEPT SUPPLIES HOME DEPOT - DEPT SUPPLIES	29.09
<u>24943011344010</u>	Invoice <u>100-0000-2026-0000</u>	ACCOUNTS PAYABLE SUSP HOME DEPOT -	00 122.72 122.72
<u>24943011345010</u>	Invoice	01/06/2022 HOME DEPOT - EQUIPMENT 0.	00 954.36
	<u>100-2100-7090-0000</u>	EQUIP SUPPLIES/MAINT HOME DEPOT - EQUIPMENT	954.36
<u>74943001323978</u>	Credit Memo	01/06/2022 AMERICAN AIRLINES 0.	00 -141.40
	500-0000-7068-0000	CONTRACTUAL SERVICE AMERICAN AIRLINES	-141.40

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Check Report Date Range: 12/31/2021 Item 2. Vendor Number Payment Date Vendor Name Payment Type Discount Amount Payment Amount 4500 ALLEEN TORRES 01/07/2022 Regular 0.00 460.00 110906 Post Date Payable # **Payable Description** Payable Type Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 01/06/2022 DEPOSIT REFUND RCT R01195651 Invoice 0.00 460.00 100-0000-4590-0000 BUILDING RENTAL **DEPOSIT REFUND** 460.00 4500 AILEEN TORRES 01/07/2022 Regular 0.00 -460.00 110906 3761 AKINS IT INC 01/07/2022 Regular 0.00 3,441.00 110907 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name **Item Description Distribution Amount** 23257 CHECK 2 Invoice 01/06/2022 COMPUTER SUPPLIES 0.00 3,441.00 100-1230-7072-0000 COMPUTER SUPPLIES/MA COMPUTER SUPPLIES 3,441.00 4497 PEDRO RICO 01/07/2022 Regular 0.00 380.00 110908 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 01/06/2022 REIMBURSEMENT FOR EMPLOYEE TRAINI 12/08/21 Invoice 0.00 380.00 TRAVEL, EDUCATION, TRA REIMBURSEMENT FOR EMPLOY 100-2150-7066-0000 380.00 4500 AILEEN TORRES 01/07/2022 Regular 0.00 460.00 110909 Discount Amount Payable Amount Payable # Payable Type Post Date Payable Description Account Number Account Name Item Description **Distribution Amount** RCT R01195651 C 11/07/2022 **DEPOSIT REFUND** Invoice 0.00 460.00 100-0000-4590-0000 BUILDING RENTAL DEPOSIT REFUND 460.00 1050 AMAZON CAPITAL SERVICES 01/07/2022 Virtual Payment 0.00 50.10 APA000246 Payable # Post Date **Payable Description** Discount Amount Payable Amount Pavable Type Account Number Account Name **Distribution Amount** Item Description 01/06/2022 OFFICE SUPPLIES 17QJ-J7D4-XKNK Invoice 0.00 50,10 OFFICE SUPPLIES 100-1225-7025-0000 OFFICE SUPPLIES 50.10 ANTONIO WHITEHEAD 40.00 APA000247 4501 01/07/2022 Virtual Payment 0.00 Post Date Payable # Payable Type Payable Description Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 01/06/2022 RCT 01184750 Invoice DEPOSIT REFUND 0.00 40.00 100-0000-4570-0000 COMMUNITY PROGRAMS DEPOSIT REFUND 40.00 3068 **BRIAN FORD** 01/07/2022 Virtual Payment 0.00 4,190.00 APA000248 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 01/04/22 01/06/2022 PREPAID PERS RETIREMENT DECEMBER 2 Invoice 0.00 4,190.00 100-0000-1520-0000 DUE FROM PERS PREPAID PERS RETIREMENT DEC 4,190.00 1340 CPS HR CONSULTING 01/07/2022 Virtual Payment 0.00 3,348,40 APA000249 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Name Account Number **Item Description Distribution Amount** 01/06/2022 HIRING COSTS SOP54042 Invoice 0.00 2.231.90 HIRING COSTS :: 100-1240-6050-0000 RECRUITMENT AND HIRI 2.231.90 01/06/2022 HIRING COSTS SOP54061 Invoice 0.00 1,116.50 RECRUITMENT AND HIRI 100-1240-6050-0000 HIRING COSTS 1,116.50 CROWN PRODUCTS 01/07/2022 1346 Virtual Payment 0.00 1,552.88 APA000250 Payable # Payable Type Post Date Payable Description Discount Amount Payable Amount Account Number Item Description **Distribution Amount** Account Name 105817 Involce 01/06/2022 DEPT SUPPLIES 0.00 1,552.88 100-6050-7070-5999 SPEC DEPT EXP - ALL PAR DEPT SUPPLIES 1,552.88 1382 DEANN DOBBINS 01/07/2022 Virtual Payment 0.00 460.00 APA000251

1/27/2022 5:01:57 PM

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Date Range: 12/31/2021 **Check Report** Item 2. Payment Date Payment Type Discount Amount Payment Amount Vendor Number Vendor Name Post Date **Payable Description** Discount Amount Payable Amount Payable # Payable Type **Distribution Amount** Account Name Item Description Account Number 01/06/2022 DEPOSIT REFUND 0.00 460.00 RCT 01194677 Invoice COMMUNITY PROGRAMS DEPOSIT REFUND 460.00 100-0000-4570-0000 01/07/2022 Virtual Payment 0.00 FAST LUBE AND TUNE 89.99 APA000252 2588 Post Date **Payable Description** Discount Amount Payable Amount Payable # Payable Type Account Name Item Description **Distribution Amount** Account Number 01/06/2022 VEHICLE MAINTENANCE 0.00 89.99 <u>79107</u> Invoice VEHICLE MAINTENANCE VEHICLE MAINTENANCE 89.99 750-7600-7037-0000 0.00 HEIDI LOMBARDI 01/07/2022 Virtual Payment 40.00 APA000253 1615 Discount Amount Payable Amount Post Date **Payable Description** Payable # Payable Type **Distribution Amount** Account Name **Item Description** Account Number 0.00 01/06/2022 DEPOSIT REFUND 40.00 RCT 01202830 Invoice DEPOSIT REFUND COMMUNITY PROGRAMS 40.00 100-0000-4570-0000 LISA WISE CONSULTING, INC 01/07/2022 Virtual Payment 0.00 3.661.25 APA000254 4290 Discount Amount Payable Amount Payable # Payable Type Post Date **Payable Description** Account Number Account Name **Item Description Distribution Amount** 01/05/2022 Housing Element Update 0.00 3,661.25 <u>4103</u> Invoice 215-0000-7068-0000 CONTRACTUAL SERVICES Housing Element Update 2,789.59 CONTRACTUAL SERVICES Housing Element Update 871.66 215-0000-7068-0000 4498 MICAELA MIXON 01/07/2022 Virtual Payment 0.00 425.00 APA000255 **Payable Description** Payable # Discount Amount Payable Amount Payable Type Post Date **Item Description Distribution Amount** Account Number Account Name 01/06/2022 DEPOSIT REFUND 0.00 425.00 RCT R01204765 Invoice COMMUNITY PROGRAMS DEPOSIT REFUND 100-0000-4570-0000 425.00 Virtual Payment 0.00 MY FOCUS TAEKWONDO 01/07/2022 500.00 APA000256 4502 Payable # Post Date **Payable Description** Discount Amount Payable Amount Payable Type Account Name Item Description **Distribution Amount** Account Number 01/06/2022 DEPOSIT REFUND 0.00 500.00 RCT 01192761 Invoice 100-0000-4570-0000 COMMUNITY PROGRAMS DEPOSIT REFUND 500.00 01/07/2022 0.00 NAPA AUTO PARTS Virtual Payment 323.21 APA000257 1984 Discount Amount Payable Amount Post Date Pavable Description Payable # Payable Type Account Name Item Description **Distribution Amount** Account Number 01/06/2022 VEHICLE MAINTENANCE 0.00 11.46 168830 Invoice 100-6050-7037-0000 VEHICLE MAINTENANCE VEHICLE MAINTENANCE 11.46 01/06/2022 VEHICLE MAINTENANCE 0,00 27.99 169102 Invoice 27.99 100-6050-7037-0000 VEHICLE MAINTENANCE VEHICLE MAINTENANCE VEHICLE MAINTENANCE 01/06/2022 0.00 43.63 <u>169720</u> Invoice 100-6050-7037-0000 VEHICLE MAINTENANCE VEHICLE MAINTENANCE 43.63 VEHICLE MAINTENANCE 01/06/2022 0.00 32.31 169723 Invoice VEHICLE MAINTENANCE VEHICLE MAINTENANCE 32.31 750-7600-7037-0000 <u>169742</u> Credit Memo 01/06/2022 VEHICLE MAINTENANCE 0.00 -56,56 750-7600-7037-0000 VEHICLE MAINTENANCE VEHICLE MAINTENANCE -56.56 01/06/2022 VEHICLE MAINTENANCE 0.00 3.22 <u>169805</u> Invoice 100-6050-7037-0000 VEHICLE MAINTENANCE VEHICLE MAINTENANCE 3,22 01/06/2022 169806 Involce VEHICLE MAINTENANCE 0.00 74.34 VEHICLE MAINTENANCE VEHICLE MAINTENANCE 74.34 100-6050-7037-0000 01/06/2022 VEHICLE MAINTENANCE 0.00 157.75 <u>169823</u> Invoice 100-6050-7037-0000 VEHICLE MAINTENANCE VEHICLE MAINTENANCE 157.75 01/06/2022 VEHICLE MAINTENANCE 0.00 21.54 <u>169893</u> Invoice 100-6050-7037-0000 VEHICLE MAINTENANCE VEHICLE MAINTENANCE 21.54 7.53 01/06/2022 VEHICLE MAINTENANCE 0.00 <u>169894</u> Invoice

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Check Report Date Range: 12/31/2021 Item 2. Vendor Number Payment Date Payment Type Vendor Name Discount Amount Payment Amount VEHICLE MAINTENANCE 100-6050-7037-0000 VEHICLE MAINTENANCE 7.53 OCCUPATIONAL HEALTH CENTERS · 01/07/2022 1317 Virtual Payment 0.00 45.00 APA000258 Post Date **Payable Description** Payable # Payable Type Discount Amount Payable Amount Account Name Account Number Item Description **Distribution Amount** 01/06/2022 EMPLOYEE MEDICAL SERVICES 73853839 Invoice 0.00 45.00 750-7600-6019-0000 FIRST AID EMPLOYEE MEDICAL SERVICES 45.00 SMARTHIRE 01/07/2022 3031 Virtual Payment 0.00 404.50 APA000259 Payable # **Payable Type** Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** <u>51911</u> Invoice 01/06/2022 HIRING COSTS 0.00 404.50 100-1240-6050-0000 RECRUITMENT AND HIRI HIRING COSTS 404.50 4499 SUNDANCE COMMUNITY ASSOCIATION 01/07/2022 Virtual Payment 0.00 500.00 APA000260 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 01/06/2022 DEPOSIT FOR USAGE OF THE MT. VIEW PA RCT R01188611 Invoice 0.00 500.00 100-0000-4570-0000 COMMUNITY PROGRAMS DEPOSIT FOR USAGE OF THE MT 500.00 THERESA MICHEL INVESTIGATIONS 01/07/2022 4267 Virtual Payment 0.00 300.00 APA000261 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** <u>37</u> Involce 01/06/2022 HIRING COSTS 0.00 300.00 100-1240-6050-0000 RECRUITMENT AND HIRI HIRING COSTS 300.00 3265 TOWNSEND PUBLIC AFFAIRS, INC 01/07/2022 Virtual Payment 0.00 6,000.00 APA000262 Payable # **Payable Description** Payable Type Post Date Discount Amount Payable Amount Account Number Account Name **Distribution Amount** Item Description 01/06/2022 CONSULTING SERVICES <u>17393</u> Invoice 0.00 2,000.00 100-1200-7068-0000 CONSULTING SERVICES CONTRACTUAL SERVICES 2,000.00 <u>17497</u> Invoice 01/06/2022 CONSULTING SERVICES 0.00 2,000.00 100-1200-7068-0000 CONTRACTUAL SERVICES CONSULTING SERVICES 2,000.00 01/06/2022 CONSULTING SERVICES <u>17812</u> Invoice 0.00 2,000.00 100-1200-7068-0000 CONTRACTUAL SERVICES CONSULTING SERVICES 2.000.00 Virtual Payment 2466 UNITED RENTALS 01/07/2022 0.00 1,092.59 APA000263 Payable # **Payable Description** Payable Type Post Date Discount Amount Payable Amount Account Number Account Name **Distribution Amount Item Description** 01/06/2022 BACKHOE RENTAL 201044329-001 Involce 0.00 1,092.59 100-3250-7075-0000 EQUIPMENT LEASING/RE BACKHOE RENTAL 1,092.59 4503 01/07/2022 ZELDA AUSTIN Virtual Payment 0.00 25.00 APA000264

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Vendor Number	Vendor Name		Payment Dat	e Payment	Түре	Discount Amount	Payment Amount	Item 2.
Payable #	Payable Type	Post Date	Payable Descrip	ation		Discount Amount Pay	able Amount	
·	Account Number	Accou	unt Name	Item Des	ription	Distribution A	mount	
LIC 0024254	Invoice	01/06/2022	PET LICENSE RE	FUND	,	0.00	25.00	
	100-1240-7081-0000	CLAIN	A COSTS	PET LICEN	ISE RÉFUND		25.00	
		Bank	Code APBNK Sumr	nary				
			Payable	Payment				
	Payment	Туре	Count	Count	Discount	Payment		
	Regular C	hecks	4	4	0.00	4,741.00		
	Manual C	hecks	0	0	0.00	0.00		
	Voided C	hecks	0	1	0.00	-460.00		
	Bank Drat	fts	0	0	0.00	0.00		

	187	25	0.00	46,236.48
Virtual Payments	31	19	0,00	23,047.92
EFT's	152	1	0.00	18,907.56
Bank Drafts	0	0	0.00	0,00

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Date Range: 12/31/2021

Date Range: 12/31/2021

All Bank Codes Check Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	4	4	0.00	4,741.00
Manual Checks	0	0	0.00	0.00
Voided Checks	0	1	0.00	-460.00
Bank Drafts	0	0	0.00	0.00
EFT's	1.52	1	0,00	18,907.56
Virtual Payments	31	19	0.00	23,047.92
-	187	25	0.00	46,236.48

Fund Summary

Fund	Name	Period	Amount
999	POOLED CASH	1/2022	46,236.48
		-	46,236.48

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AGENDA ITEM NO.

100 0102 **11**003 12038

Item 2.



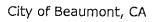
WARRANTS TO BE RATIFIED

Thursday, January 13, 2022

Printed Checks ACH NvoicePay	110910 110911-110913 556 APA000265-APA000302 A/P Total	\$ \$ \$ \$ \$		Fritts Ford Truck Purchase FY 21/22
Bank Drafts	MG Trust	\$ \$ \$	3,765.28	457 Paydate 1/10/22 401a Paydate 1/10/22 FICA Payable 1/10/22
, *~	CalPERS	\$ \$ \$ \$	46,150.59 18,268.05	742 Classic 743 Classic 27308 PEPRA 25763 PEPRA
	Wires	\$	2,000,000.00	Payroll

I DO HEREBY CERTIFY THIS WARRANT LIST HAS BEEN COMPILED AND PREPARED TO MEET THE DAILY OPERATIONS FOR THE FISCAL YEAR JULY 1, 2021 - JUNE 30, 2022

SIGNATURE: TITLE: CITY TREASURER SIGNATURE: TITLE: FINANCE DIRECTORY l





Check	ltem 2.	t
By Ch	eck Numb	ber

Date Range: 01/08/2022 - 01/13/2022

Vendor Number Bank Code: APBNK-Al	Vendor Name P Bank		Payment Date	Payment Type	Discount Amou	nt Payment Amount	Number
2264 Payable #	SEIU Payable Type Account Number	Post Date	01/13/2022 Payable Descriptio t Name	EFT on Item Description	0.0 Discount Amount P	Payable Amount	556
INV0000334	Invoice 100-0000-2061-0000	11/19/2021	SEIU DUES DUES & INS	SEIU DUES	Distributior 0,00	30.00 30.00	
INV0000353	Invoice <u>100-0000-2061-0000</u>	11/19/2021 P.E.R.C.	SEIU DUES DUES & INS	SEIU DUES	0.00	2,043.65 2,043.65	
<u>INV0000372</u>	Invoice <u>100-0000-2061-0000</u>	12/03/2021 P.E.R.C.	SEIU DUES DUES & INS	SEIU DUES	0.00	30.00 30.00	
INV0000391	Invoice <u>100-0000-2061-0000</u>	12/03/2021 P.E.R.C.	SEIU DUES DUES & INS	SEIU DUES	0.00	2,068.53 2,068.53	
1532 Payable #	FRITTS FORD Payable Type	Post Date	01/12/2022 Payable Descriptio	Regular	0.0		110910
<u>F02100</u>	Account Number	Accoun 01/12/2022	• •	Item Description	Discount Amount P Distribution 0.00		
	700-4050-8060-0000	VEHICLE	ES	2022 F250 WASTEWAT		1,943.78	
1428 Payable #	DIVISION OF STATE ARCHI Payable Type	IECT Post Date	01/13/2022 Payable Descriptio	Regular	0.0 Discount Amount Pa	- 52,00	110911
\$B1186 2021 Q4	Account Number	Account 01/11/2022	· ·	Item Description	Distribution	Amount	
<u>991100 2001 Q1</u>	<u>100-0000-2235-0000</u>			SB1186 2021 Q4 FEES	0.00	52.00 52.00	
4504 Payable #	SHANNAN DOYLE Payable Type	Post Date	01/13/2022 Payable Descriptio	Regular	0.0 Discount Amount Pa		110912
<u>1/10-1/14/22</u>	Account Number Invoice	Account 01/13/2022	• •	Item Description	Discount Amount Pa Distribution 0.00		
	100-2090-7066-0000	TRAVEL,	EDUCATION, TRA	RECORDS CLERK TRAINI		405,00	
2311	SOUTHERN CALIFORNIA ED	ISON	01/13/2022	Regular	0.00	38,130.85	110913

						Date Range:	01/08/2	01 Item 2.
Vendor Number	Vendor Name		Payment Dat	e Payment Type	Discount A	mount Paymen		10111 2.
Payable #	Payable Type	Post Date	Payable Descrip		Discount Amoun	t Payable Amou	Int	i number
	Account Number	Acco	ount Name	Item Description		ution Amount		
<u>1/12/22</u>	Invoice	01/12/2022	ELECTRIC UTILI	Γ Υ	0.00		85	
	<u>100-3250-7010-0000</u>	UTIL	ITIES	ELECTRIC UTILITY		17,015.55		
	<u>100-3250-7010-003X</u>	UTIL	ITIES (IA 3)	ELECTRIC UTILITY		3,063.00		
	<u>100-3250-7010-006B</u>	UTIL	ITIES (IA 6B)	ELECTRIC UTILITY		2,472.87		
	<u>100-3250-7010-007A</u>	UTIL	ITIES (IA 7A)	ELECTRIC UTILITY		18,87		
	<u>100-3250-7010-007B</u>		ITIES (IA 7B)	ELECTRIC UTILITY		29,83		
	100-3250-7010-008A	UTIL	ITIES (IA 8A)	ELECTRIC UTILITY		1,076.69		
	<u>100-3250-7010-008C</u>	UTIL	ITIES (IA 8C)	ELECTRIC UTILITY		789.13		
	<u>100-3250-7010-011A</u>	UTIL	ITIES (IA 11A)	ELECTRIC UTILITY		184.02		
	<u>100-3250-7010-014B</u>	UTIL	TIES (IA 14B)	ELECTRIC UTILITY		59.78		
	<u>100-3250-7010-014X</u>		TIES (IA 14)	ELECTRIC UTILITY		2,645.04		
	<u>100-3250-7010-018X</u>	UTILI	TIES (IA 18)	ELECTRIC UTILITY		140.30		
	<u>100-3250-7010-019C</u>	UTILI	TIES (IA 19C)	ELECTRIC UTILITY		3,268,09		
	<u>100-3250-7010-06A1</u>	UTILI	TIES (IA 6A1)	ELECTRIC UTILITY		1,093.06		
	100-6050-7010-0000	UTILI		ELECTRIC UTILITY		822.87		
	<u>100-6050-7010-002X</u>	UTILI	TIES IA 2	ELECTRIC UTILITY				
	100-6050-7010-005X	UTILI	TIES IA 5	ELECTRIC UTILITY		213.45		
	100-6050-7010-007A		TIES IA 7A	ELECTRIC UTILITY		4,944.21		
	100-6050-7010-5400		TIES, PARK (SPORTS	ELECTRIC UTILITY		25.11		
	100-6050-7010-5500		TIES, PARK (STEWAR			196.30		
			,			72.68		
.042	ALL PURPOSE RENTALS		01/13/2022	Virtual Payment		0.00	704 -	
Payable #	Payable Type	Post Date	Payable Descript	•	Discount Amount		1,701,34	APA00026
	Account Number	Accou	int Name	Item Description			it	
<u>46902</u>	Invoice	01/13/2022	EQUIPMENT REN			tion Amount	0	
	<u>500-0000-8990-0000</u>		ALOUTLAY	EQUIPMENT RENTAL	0.00	1,048.3	8	
<u>46973</u>	Invoice					1,048.38		
	500-0000-8990-0000	01/13/2022	EQUIPMENT REN		0.00	580,8	0	
		CAPIT	ALOUTLAY	EQIPMENT RENTAL		580,80		
<u>47069</u>	Invoice	01/13/2022	EQUIPMENT REN	TAL	0.00	72.1	6	
	<u>100-2050-7070-0000</u>	SPECI	AL DEPT SUPPLIES	EQUIPMENT RENTAL		72.16	•	
	····							
50	AMAZON CAPITAL SERVI	CES	01/13/2022	Virtual Payment		0.00	227.60	APA000266
Payable #	Payable Type	Post Date	Payable Descripti	on	Discount Amount	Payable Amoun	t	
	Account Number	Accou	nt Name	Item Description		ion Amount	-	
<u>1DNH-YQ4Q-WN</u>	Invoice	01/13/2022	OFFICE SUPPLIES		0.00	34.24	1	
	<u>100-1350-7025-0000</u>	OFFICI	SUPPLIES	OFFICE SUPPLIES		34.24		
1NDH-NGNL-RCF	Invoice	01/13/2022	OFFICE SUPPLIES		0.00			
	100-2050-7025-0000		SUPPLIES	OFFICE SUPPLIES	0.00	143.02	<u> </u>	
1RFP-T6GH-WMP				GET ICE DOFT LIED		143.02		
ZIGT-LOON-WIMP	100-2030-7025-0000	01/13/2022	OFFICE SUPPLIES		0.00	50,34	Ļ	
	<u>100-2030-7023-0000</u>	OFFICE	SUPPLIES	OFFICE SUPPLIES		50.34		
31	ANIMAL DECT MANAGEN	IENT CEDUICES INC	01/40/0000	12				
Payable #	ANIMAL PEST MANAGEN Payable Type	=	• •	Virtual Payment		0.00	227.50	APA000267
. almore u	Account Number	Post Date	Payable Description		Discount Amount	Payable Amount	;	
<u>649928</u>	Invoice		It Name	Item Description	Distributi	on Amount		
<u></u>		01/13/2022	CONTRACTUAL SE		0.00	227.50		
	700-4050-7068-0000	CONTR	ACTUAL SERVICES	CONTRACTUAL SERVICI	ES	227.50		
80	ARAMARK		01/12/2022	10 1 D				
Payable #	Payable Type	Port Data	01/13/2022	Virtual Payment).00 4,(062.78	APA000268
		Post Date	Payable Descriptio		Discount Amount	Payable Amount		
10478608	Account Number		t Name	Item Description	Distributio	on Amount		
	Invoice 100-2050 7025 0000	01/13/2022	OFFICE SUPPLIES		0.00	156.91		
	100-2050-7025-0000	OFFICE	SUPPLIES	OFFICE SUPPLIES		156.91		
<u>10519463</u>	Invoice	01/13/2022	OFFICE SUPPLIES		0.00	165.94		
	100-2050-7025-0000	OFFICE	SUPPLIES	OFFICE SUPPLIES	0,00	165.94 165.94		
10588272	Invoice	01/13/2022	OFFICE SUPPLIES					
		2212212022	OLLICE SOLLIFS		0.00	191,82		
	100-2050-7025-0000	Action	SUPPLIES	OFFICE SUPPLIES				

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Check Report Date Range: 01/08/202 Item 2. Vendor Number Vendor Name Payment Date Payment Type Discount Amount Payment Amount 10708216 01/13/2022 OFFICE SUPPLIES Invoice 0,00 157.90 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 157.90 10743903 Invoice 01/13/2022 OFFICE SUPPLIES 0.00 88,54 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 88.54 <u>10752648</u> Invoice 01/13/2022 OFFICE SUPPLIES 0.00 157,90 100-2050-7025-0000 OFFICE SUPPLIES **OFFICE SUPPLIES** 157.90 10827771 Invoice 01/13/2022 OFFICE SUPPLIES 0.00 245,64 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 245.64 10905759 Invoice 01/13/2022 OFFICE SUPPLIES 0.00 362.98 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 362.98 10980254 01/13/2022 OFFICE SUPPLIES Invoice 0.00 320.25 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 320,25 11073355 Invoice 01/13/2022 OFFICE SUPPLIES 0.00 313.14 100-2050-7025-0000 **OFFICE SUPPLIES** OFFICE SUPPLIES 313.14 11344697 Invoice 01/13/2022 OFFICE SUPPLIES 0.00 169.16 100-2050-7025-0000 **OFFICE SUPPLIES** OFFICE SUPPLIES 169.16 01/13/2022 11460777 OFFICE SUPPLIES Invoice 0.00 302.20 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 302.20 11553025 01/13/2022 **OFFICE SUPPLIES** Invoice 0.00 172.91 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 172,91 01/13/2022 11613115 OFFICE SUPPLIES Invoice 0.00 295.86 100-2050-7025-0000 **OFFICE SUPPLIES** OFFICE SUPPLIES 295.86 11703992 Invoice 01/13/2022 **OFFICE SUPPLIES** 0.00 360,56 100-2050-7025-0000 OFFICE SUPPLIES **OFFICE SUPPLIES** 360.56 11829972 Invoice 01/13/2022 OFFICE SUPPLIES 0.00 337.72 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 337.72 11922585 01/13/2022 OFFICE SUPPLIES Invoice 0.00 263.35 100-2050-7025-0000 OFFICE SUPPLIES **OFFICE SUPPLIES** 263.35 4388 BABCOCK LABORATORIES, INC 01/13/2022 Virtual Payment 0.00 1,470.00 APA000269 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name **Item Description Distribution Amount** CL12301-0033 Invoice 01/13/2022 WWTP - ANALYTICAL SERVICES 0.00 490.00 700-4050-7068-0000 CONTRACTUAL SERVICES WWTP - ANALYTICAL SERVICES 490.00 CL12302-0033 Invoice 01/13/2022 WWTP - ANALYTICAL SERVICES 0.00 490.00 700-4050-7068-0000 CONTRACTUAL SERVICES WWTP - ANALYTICAL SERVICES 490.00 CL12303-0033 Invoice 01/13/2022 WWTP - ANALYTICAL SERVICES 0.00 490.00 700-4050-7068-0000 CONTRACTUAL SERVICES WWTP - ANALYTICAL SERVICES 490.00 1127 BEAUMONT DO IT BEST HOME CENTER 01/13/2022 Virtual Payment 0.00 62.88 APA000270 Payable # Payable Type Post Date Payable Description Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** <u>509236</u> Invoice 01/13/2022 OFFICE SUPPLIES 0.00 62.88 100-2050-7025-0000 **OFFICE SUPPLIES OFFICE SUPPLIES** 62.88 1161 **BIO-TOX LABORATORIES** 01/13/2022 Virtual Payment 0.00 808.00 APA000271 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** <u>42106</u> Invoice 01/13/2022 CONTRACTUAL SERVICES 0.00 679.00 100-2050-7068-0000 CONTRACTUAL SERVICES CONTRACTUAL SERVICES 679.00 42215 Invoice 01/13/2022 CONTRACTUAL SERVICES 0,00 129.00 100-2050-7068-0000 CONTRACTUAL SERVICES CONTRACTUAL SERVICES 129.00 3602 BURRTEC WASTE GROUP, INC 01/13/2022 Virtual Payment 0.00 32,165.62 APA000272

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Check Report Date Range: 01/08/202 b22 Item 2. Discount Amount Payment Amount Vendor Number Vendor Name Payment Date Payment Type Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 1052022-1 Invoice 01/13/2022 SLUDGE HAULING SERVICES 0.00 32,165.62 700-4050-7068-0000 CONTRACTUAL SERVICES SLUDGE HAULING SERVICES 32,165.62 1196 CALIFORNIA BUILDING OFFICIALS 01/13/2022 Virtual Payment 0.00 210.00 APA000273 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 01/13/2022 14293 Invoice TRAINING 0.00 210.00 240-2330-7066-0000 TRAVEL, EDCUATION, TRA TRAINING 210,00 1302 CLINICAL LABORATORY OF SAN BERNARDINO, 1 01/13/2022 Virtual Payment 0.00 11,455.00 APA000274 Post Date **Payable Description** Payable # Payable Type Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 01/13/2022 <u>2101448</u> Invoice Clinical Labs 0.00 11.455.00 CONTRACTUAL SERVICES 700-4050-7068-0000 Clinical Labs 11,455.00 4459 CUBICLES.COM 01/13/2022 Virtual Payment 0.00 5,742.01 APA000275 Payable # **Payable Type** Post Date **Payable Description** Discount Amount **Payable Amount** Account Number Account Name Item Description **Distribution Amount BEAU1KKKK1** Invoice 01/13/2022 Purchase of Cubicles for PD Annex 0.00 5,029.77 240-2390-7036-0000 GRANT SPECIFIC COSTS 5'x5'x52" O2 Now Powered Cubi 5,029.77 BEAU1KKKK2 01/13/2022 Sit/Stand Desk for Evidence Invoice 0.00 712,24 Sit/Stand Desk for Evidence 100-2090-7070-0000 SPECIAL DEPT SUPPLIES 712.24 1424 DIRECTV 01/13/2022 Virtual Payment 0.00 779.97 APA000276 Payable # Payable Type Post Date Payable Description Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 035168908X2112 01/13/2022 TELEVISION UTILITY Invoice 0.00 65.69 100-6000-7010-6060 UTILITIES - 713 W 4TH ST TELEVISION UTILITY 65.69 035168915X2112 Invoice 01/13/2022 **TELEVISION UTILITY** 0.00 88.24 100-6000-7010-6065 UTILITIES - 550 CALIF AVE TELEVISION UTILITY 88.24 039668521X2201 Invoice 01/13/2022 TELEVISION UTILITY 0.00 90.69 UTILITIES - FIRE STATION 100-6000-7010-6055 TELEVISION UTILITY 90.69 TELEVISION UTILITY 045085274X2201 Invoice 01/13/2022 0.00 125.69 100-6000-7010-6040 UTILITIES - POLICE DEPT **TELEVISION UTILITY** 125.69 051553347X2201 Invoice 01/13/2022 **TELEVISION UTILITY** 0.00 65.69 100-6000-7010-6025 UTILITIES - CITY HALL TELEVISION UTILITY 65.69 051553389X2112 Invoice 01/13/2022 TELEVISION UTILITY 0.00 65.69 100-6000-7010-6028 UTILITIES - CITY HALL BLD TELEVISION UTILITY 65.69 051885754X2201 01/13/2022 **TELEVISION UTILITY** Invoice 0.00 212.59 100-6000-7010-6045 UTILITIES - COMMUNITY **TELEVISION UTILITY** 212.59 063515264X2201 Invoice 01/13/2022 **TELEVISION UTILITY** 0.00 65.69 100-6000-7010-6041 UTILITIES - POLICE ANNEX TELEVISION UTILITY 65.69 1479 ENTENMANN-ROVIN CO 01/13/2022 Virtual Payment 0.00 151.90 APA000277 Payable # **Payable Description** Pavable Type Post Date Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 0162981-IN 01/13/2022 UNIFORMS Invoice 0.00 151,90 100-2050-7065-0000 UNIFORMS UNIFORMS 151.90 1509 FEDEX 01/13/2022 Virtual Payment 0.00 15,80 APA000278 Payable # Payable Type Post Date **Payable Description** Discount Amount Payable Amount Account Number Account Name Item Description **Distribution Amount** 7-601-72846 Invoice 01/13/2022 OFFICE SUPPLIES 0.00 15.80 100-2050-7025-0000 OFFICE SUPPLIES OFFICE SUPPLIES 15.80 4400 FROG ENVIRONMENTAL INC 01/13/2022 Virtual Payment 0.00 195.00 APA000279

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Check Report						Date Range: 01/08/20	
Vendor Number Payable #	Vendor Name Payable Type	Post Date	Payment Date Payable Descriptio	,		iount Payment Amount Payable Amount	Item 2.
r ayabic #	Account Number		nt Name	Item Description		tion Amount	
<u>INV-005682</u>	Invoice <u>700-4050-7068-0000</u>	01/13/2022 CONTE	SWPPP & NOI SER	VICES SWPPP & NOI SERVICE	0.00 S	195.00 195.00	
1533	FRONTIER COMMUNICAT		01/13/2022	Virtual Payment			APA000280
Payable #	Payable Type Account Number	Post Date	Payable Description Payable Description	Item Description		Payable Amount tion Amount	
213-181-1343 <u>-03</u>		01/13/2022	INTERNET UTILITY	nem beschption	0,00		
<u>210 101 3040 00</u>	700-4050-7015-0000	TELEPI		INTERNET UTILITY		69.47	
<u>323-156-8188-02</u>	Invoice <u>100-1230-7015-6060</u>	01/13/2022 TELEPI	INTERNET UTILITY IONE (4th ST YARD	INTERNET UTILITY	0.00	85.98 85.98	
<u>951-197-0835-05</u>	Invoice 700-4050-7015-0000	01/13/2022 TELEPI	INTERNET UTILITY	INTERNET UTILITY	0.00	800.00 800.00	
					~0 <u>00</u>		
<u>951-769-8500-01</u>	Invoice <u>100-1230-7015-6040</u>	01/13/2022 TELEPI	INTERNET UTILITY IONE (POLICE DPT)	INTERNET UTILITY	0.00	1,354.87 1,354.87	
<u>951-769-8520-01</u>	Invoice 100-1230-7015-6025	01/13/2022 TELEPI	INTERNET UTILITY IONE (CITY HALL)	INTERNET UTILITY	0.00	204.82 204.82	
<u>951-769-8530-06</u>		01/13/2022	INTERNET UTILITY		0.00	237.30	
991-769-8950-00	750-7000-7015-0000	TELEPH		INTERNET UTILITY	0,00	237.30	
<u>951-769-8537-03</u>	Invoice <u>100-1230-7015-6060</u>	01/13/2022 TELEPI	INTERNET UTILITY IONE (4th ST YARD	INTERNET UTILITY	0.00	107.69 107.69	
<u>951-769-8538-06</u>	Invoice 100-1230-7015-6048	01/13/2022 TELEPI	INTERNET UTILITY IONE (POOL)	INTERNET UTILITY	0.00	82.99 82.99	
<u>951-769-8539-04</u>	Invoice 100-1230-7015-6045	01/13/2022 TELEPI	INTERNET UTILITY IONE (COMM CTR)	INTERNET UTILITY	0.00	166.45 166.45	
1553	GALLS INC.	Bast Bata	01/13/2022 Payable Descriptio	Virtual Payment		0.00 1,258.54 Payable Amount	APA000281
Payable #	Payable Type Account Number	Post Date	nt Name	Item Description		tion Amount	
BC1517827	Invoice	01/13/2022	UNIFORMS		0.00		
<u> </u>	100-2050-7065-0000	UNIFO	RMS	UNIFORMS		1,176.78	
<u>BC1521209</u>	Invoice	01/13/2022	UNIFORMS		0.00	81.76	
	100-2050-7065-0000	UNIFO	RMS	UNIFORMS		81.76	
1583	GRAFIX SYSTEMS		01/13/2022	Virtual Payment		0.00 2,712.42	APA000282
Payable #	Payable Type	Post Date	Payable Descriptio			Payable Amount	
20052	Account Number Involce	Accour 01/13/2022	nt Name VEHICLE MAINTEN	Item Description	0.00	tion Amount 644.41	
<u>29653</u>	100-2000-7037-0000		E MAINTENANCE	VEHICLE MAINTENANC		644.41	
29660	Invoice	01/13/2022	VEHICLE MAINTEN		0.00	2,068.01	
22000	<u>100-2050-7037-0000</u>		E MAINTENANCE	VEHICLE MAINTENANC		2,068.01	
4181	HASA, INC		01/13/2022	Virtual Payment		0.00 2,415.40	APA000283
Payable #	Payable Type	Post Date	Payable Description			Payable Amount	
	Account Number		nt Name	Item Description		tion Amount	
<u>793012</u>	Invoice <u>700-4050-7070-0000</u>	01/13/2022 SPECIA	CHEMICALS L DEPT SUPPLIES	CHEMICALS	0.00	2,415.40 2,415.40	
1806	KONICA MINOLTA PREMI	R FINANCE	01/13/2022	Virtual Payment		0.00 600.17	APA000284
Payable #	Payable Type	Post Date	Payable Description	•	Discount Amount	Payable Amount	
	Account Number		nt Name	Item Description		tion Amount	
<u>461609950</u>	Invoice	01/24/2022	EQUIPMENT RENT,		0.00	600.17	
	<u>100-1230-7075-6026</u> <u>700-4050-7075-0000</u>		MENT LEASING/RE MENT LEASING/RE	EQUIPMENT RENTAL EQUIPMENT RENTAL		420.12 180.05	
1856	LEXISNEXIS RISK SOLUTIO	NS	01/13/2022	Virtual Payment		0.00 171.70	APA000285

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Vendor Number	Vendor Name		Payment Date	Payment Type	Discount Am	ount Payment /	Amount	
Payable #	Payable Type	Post Date	Payable Description	on	Discount Amount	Payable Amoun	nt	
	Account Number	Accoun	t Name	Item Description	Distribu	tion Amount		
<u>1535776-202112</u>	Invoice	01/13/2022	DUES AND SUBSCR	RIPTIONS	0.00	171.7	0	
	100-2050-7030-0000		SUBSCRIPTIONS	DUES AND SUBSCRIPT	ONS	171.70		
3186	MWH CONSTRUCTORS INC		01/13/2022	Virtual Payment		0.00 23	,053.66	APA000286
Payable #	Payable Type	Post Date	Payable Descriptio	2n	Discount Amount	Payable Amoun	it	
	Account Number	Account	t Name	Item Description	Distribu	tion Amount		
21-30505107-27	Invoice	01/13/2022	BRINE LINE INSTAL	LATION CONSTRUCTIO	0.00	23,053.6	6	
	710-0000-8030-0000		. IMPROVEMENT	BRINE LINE INSTALLATI	ON CONS	23,053.66		
2009	O'REILLY AUTO PARTS		01/13/2022	Virtual Payment		0.00	5.06	APA000287
Payable #	Payable Type	Post Date	Payable Descriptio	•	Discount Amount	Payable Amoun		/ / / / 000201
rayable #	Account Number	Accoun		Item Description		tion Amount		
2678 404261			VEHICLE MAINTEN	•	0.00		c	
<u>2678-404361</u>	Invoice	01/13/2022					D	
	<u>100-6050-7037-0000</u>	VEHICLE	E MAINTENANCE	VEHICLE MAINTENANG	. Ľ	5.06		
170	PACIFIC STAR CHEMICAL, L		01/13/2022	Virtual Payment	-1			APA000288
` Payable #	Payable Type	Post Date	Payable Descriptio			Payable Amoun	it	
	Account Number	Account		Item Description	Distribu	tion Amount		
<u>213733</u>	Invoice	01/13/2022	Chemical Supplies		0.00	7,977.2	6	
	700-4050-7070-0000	SPECIAL	DEPT SUPPLIES	Chemical Supplies for V	WWTP	7,977.26		
.082	PROFORCE LAW ENFORCE	MENT	01/13/2022	Virtual Payment		0.00	175,85	APA000289
Payable #	Payable Type	Post Date	Payable Descriptio	on	Discount Amount	Payable Amoun	nt	
	Account Number	Account	- ,	Item Description		tion Amount		
470519	Invoice	01/13/2022	SPECIAL DEPARTM	-	0.00		5	
470315	100-2050-7070-0000	, -	DEPT SUPPLIES	SPECIAL DEPARTMENT		175,85	5	
652	PRUDENTIAL OVERALL SUP		01/13/2022	Virtual Payment		0.00		APA000290
Payable #	Payable Type	Post Date	Payable Descriptio			Payable Amoun	it	
	Account Number	Account	t Name	Item Description	Distribut	tion Amount		
23260529	Invoice	01/13/2022	WW - Prudential U	niforms	0.00	85.4	1	
	700-4050-7065-0000	UNIFOR	MS	WW - Prudential Unifo	rms	85,41		
098			01/13/2022	Virtual Payment		0.00	337.05	APA00029:
020	QUILL CORPORATON			an	Discount Amount	Payable Amoun		
	•	Post Date	Payable Descriptio)t	
Payable #	Payable Type					tion Amount	it .	
Payable #	Payable Type Account Number	Account	t Name	Item Description	Distribut	tion Amount 337.0		
	Payable Type Account Number Invoice	Account 01/13/2022	Name OFFICE SUPPLIES	Item Description		337.0		
Payable #	Payable Type Account Number	Account 01/13/2022 OFFICE :	t Name		Distribut			
Payable # <u>21339286</u>	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u>	Account 01/13/2022 OFFICE : OFFICE :	Name OFFICE SUPPLIES SUPPLIES SUPPLIES	Item Description OFFICE SUPPLIES OFFICE SUPPLIES	Distribut 0.00	337.0 16.85 320,20	5	ልዖልበቡሳንብ
Payable # <u>21339286</u> 104	Payable Type Account Number Invoice 100-2000-7025-0000 100-2050-7025-0000 RAMONA HUMANE SOCIET	Account 01/13/2022 OFFICE : OFFICE : Y INC	Name OFFICE SUPPLIES SUPPLIES SUPPLIES 01/13/2022	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment	Distribut 0.00	337.09 16.85 320,20 0.00 3	5	APA000292
Payable # <u>21339286</u>	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date	t Name OFFICE SUPPLIES SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment	Distribut 0.00 Discount Amount	337.0 16.85 320,20 0.00 3 Payable Amoun	5	APA000292
Payable # <u>21339286</u> 104 Payable #	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account	t Name OFFICE SUPPLIES SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio : Name	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment in Item Description	Distribut 0.00 Discount Amount Distribut	337.0 16.85 320.20 0.00 3 Payable Amoun tion Amount	5 9,026.05 1t	APA000292
Payable # <u>21339286</u> 104	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES O1/13/2022 Payable Descriptio : Name Ramona Humane S	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment in Item Description Society Sheltering Servi	Distribut 0.00 Discount Amount Distribut 0.00	337.0 16.85 320,20 0.00 3 Payable Amoun tion Amount 3,026.0	5 9,026.05 1t	APA000292
Payable # <u>21339286</u> 104 Payable #	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio : Name	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment in Item Description	Distribut 0.00 Discount Amount Distribut 0.00	337.0 16.85 320.20 0.00 3 Payable Amoun tion Amount	5 9,026.05 1t	APA00029;
Payable # <u>21339286</u> 104 Payable # <u>123121</u>	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio : Name Ramona Humane S SCTUAL SERVICES 01/13/2022	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ	Distribut 0.00 Discount Amount Distribut 0.00 ty Shelte	337.0 16.85 320,20 0.00 3 Payable Amount ion Amount 3,026.05 0.00	5 ,026.05 it 5 505.14	
Payable # <u>21339286</u> 104 Payable # <u>123121</u>	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u>	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio : Name Ramona Humane S SCTUAL SERVICES	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ	Distribut 0.00 Discount Amount Distribut 0.00 ty Shelte	337.0 16.85 320,20 0.00 3 Payable Amoun tion Amount 3,026.05	5 ,026.05 it 5 505.14	
Payable # <u>21339286</u> 104 Payable # <u>123121</u> 498	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio : Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ	Distribut 0.00 Discount Amount Distribut 0.00 ty Shelte Discount Amount	337.0 16.85 320,20 0.00 3 Payable Amount ion Amount 3,026.05 0.00	5 ,026.05 it 5 505.14	
Payable # <u>21339286</u> 104 Payable # <u>123121</u> 498	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC Payable Type Account Number	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio : Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ Virtual Payment	Distribut 0.00 Discount Amount Distribut 0.00 ty Shelte Discount Amount	337.0 16.85 320,20 0.00 3 Payable Amount 3,026.05 0.00 Payable Amoun	5 ;,026.05 it 5 505,14 it	
Payable # <u>21339286</u> 104 Payable # <u>123121</u> 498 Payable #	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC Payable Type Account Number	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio : Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio : Name	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ Virtual Payment	Distribut 0.00 Discount Amount Distribut 0.00 ty Shelte Discount Amount Distribut	337.0 16.85 320.20 0.00 3 Payable Amount 3,026.05 0.00 Payable Amount tion Amount	5 ;,026.05 it 5 505,14 it	
Payable # <u>21339286</u> 104 Payable # <u>123121</u> 498 Payable # <u>22354</u>	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC Payable Type Account Number Invoice <u>700-4050-7068-0000</u>	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio Name SCADA SERVICES CTUAL SERVICES	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ Virtual Payment Item Description SCADA SERVICES	Distribut 0.00 Discount Amount Distribut 0.00 ty Shelte Discount Amount Distribut 0.00	337.0 16.85 320,20 0.00 3 Payable Amount 3,026.05 0.00 Payable Amount 505.14	5 ;026.05 it 5 505.14 it 4	APA00029
Payable # <u>21339286</u> 104 Payable # <u>123121</u> 498 Payable # <u>22354</u> 382	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC Payable Type Account Number Invoice <u>700-4050-7068-0000</u> T MOBILE	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA Post Date Account 01/13/2022 CONTRA	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio : Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio : Name SCADA SERVICES CTUAL SERVICES 01/13/2022	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment in Item Description Society Sheltering Servi Ramona Humane Societ Virtual Payment in Item Description SCADA SERVICES Virtual Payment	Distribut 0.00 Discount Amount Distribut 0.00 ty Shelte Discount Amount Distribut 0.00	337.0 16.85 320,20 0.00 3 Payable Amount 3,026.05 0.00 Payable Amount 505.14 0.00 2,	5 ;,026.05 it 5 505.14 it 4	APA000293
Payable # <u>21339286</u> 104 Payable # <u>123121</u> 498 Payable # <u>22354</u>	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC Payable Type Account Number Invoice <u>700-4050-7068-0000</u> T MOBILE Payable Type	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA Post Date Account 01/13/2022 CONTRA	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio Name SCADA SERVICES CTUAL SERVICES 01/13/2022 Payable Descriptio	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ Virtual Payment Item Description SCADA SERVICES Virtual Payment	Discount Amount Discount Amount Distribut 0.00 ty Shelte Discount Amount 0.00 Discount Amount	337.0 16.85 320,20 0.00 3 Payable Amount 3,026.05 0.00 Payable Amount 505.14 0.00 2, Payable Amount	5 ;,026.05 it 5 505.14 it 4	APA00029
Payable # 21339286 104 Payable # 123121 498 Payable # 22354 382 Payable #	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC Payable Type Account Number Invoice <u>700-4050-7068-0000</u> T MOBILE Payable Type Account Number	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES O1/13/2022 Payable Descriptio Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio Name SCADA SERVICES O1/13/2022 Payable Descriptio Name	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ Virtual Payment Item Description SCADA SERVICES Virtual Payment In Item Description	Distribut 0.00 Discount Amount 0.00 ty Shelte Discount Amount 0.00 Discount Amount Distribut	337.0 16.85 320,20 0.00 3 Payable Amount 3,026.05 0.00 Payable Amount 505.14 0.00 2, Payable Amount ion Amount	5 ,026.05 it 5 505.14 it 4 ,540.00 t	APA00029
Payable # <u>21339286</u> 104 Payable # <u>123121</u> 498 Payable # <u>22354</u> 382	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC Payable Type Account Number Invoice <u>700-4050-7068-0000</u> T MOBILE Payable Type Account Number Invoice	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES O1/13/2022 Payable Descriptio Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio Name SCADA SERVICES O1/13/2022 Payable Descriptio Name SCADA SERVICES 01/13/2022 Payable Descriptio Name SPECIAL DEPT SUPF	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment in Item Description Society Sheltering Servi Ramona Humane Societ Virtual Payment in Item Description SCADA SERVICES Virtual Payment in Item Description PLIES	Distribut 0.00 Discount Amount 0.00 ty Shelte Discount Amount 0.00 Discount Amount Distribut 0.00	337.0 16.85 320,20 0.00 3 Payable Amount 3,026.05 0.00 Payable Amount 505.14 0.00 2, Payable Amount 1000 2, Payable Amount 800.00	5 ,026.05 it 5 505.14 it 4 ,540.00 t	APA000292 APA000292 APA000294
Payable # 21339286 104 Payable # 123121 498 Payable # 22354 382 Payable #	Payable Type Account Number Invoice <u>100-2000-7025-0000</u> <u>100-2050-7025-0000</u> RAMONA HUMANE SOCIET Payable Type Account Number Invoice <u>100-2000-7068-0000</u> SKM ENGINERRING LLC Payable Type Account Number Invoice <u>700-4050-7068-0000</u> T MOBILE Payable Type Account Number	Account 01/13/2022 OFFICE : OFFICE : Y INC Post Date Account 01/13/2022 CONTRA Post Date Account 01/13/2022	t Name OFFICE SUPPLIES SUPPLIES 01/13/2022 Payable Descriptio Name Ramona Humane S CTUAL SERVICES 01/13/2022 Payable Descriptio Name SCADA SERVICES 01/13/2022 Payable Descriptio Name	Item Description OFFICE SUPPLIES OFFICE SUPPLIES Virtual Payment Item Description Society Sheltering Servi Ramona Humane Societ Virtual Payment Item Description SCADA SERVICES Virtual Payment In Item Description	Distribut 0.00 Discount Amount 0.00 ty Shelte Discount Amount 0.00 Discount Amount Distribut 0.00	337.0 16.85 320,20 0.00 3 Payable Amount 3,026.05 0.00 Payable Amount 505.14 0.00 2, Payable Amount ion Amount	5 ,026.05 it 5 505.14 it 4 ,540.00 t	APA000293

Check Report						Date Range: 01/0	8/202
/endor Number	Vendor Name 100-2050-7070-0000	SPECIA	Payment Date L DEPT SUPPLIES	Payment Type SPECIAL DEPT SUPPLIES		ount Payment Amo 810.00	, Item 2.
<u>9479039502</u>	Invoice <u>100-2050-7070-0000</u>	01/13/2022 SPECIA	SPECIAL DEPT SUP L DEPT SUPPLIES	PLIES SPECIAL DEPT SUPPLIES	0.00	810.00 810.00	
<u>9479574975</u>	Invoice <u>100-2050-7070-0000</u>	01/13/2022 SPECIA	SPECIAL DEPT SUP L DEPT SUPPLIES	PLIES SPECIAL DEPT SUPPLIES	0.00	120.00 120.00	
2407	THE GAS COMPANY		01/13/2022	Virtual Payment		•	5.39 APA00029
Payable # <u>03822937417 1/1</u>	Payable Type Account Number Invoice	Post Date Accoun 01/13/2022	Payable Description t Name GAS UTILITY	Item Description		Payable Amount ion Amount 214,43	
0 <u>5789544425 1/1</u>	<u>100-6000-7010-6041</u>	UTILITI 01/13/2022	ES - POLICE ANNEX GAS UTILITY	GAS UTILITY	0.00	214,43 1,083.08	
05/89544425 1/1	100-6000-7010-6045	• •	ES - COMMUNITY	GAS UTILITY	0.00	1,083.08	
<u>12604948096 1/1</u>	Invoice <u>700-4050-7010-0000</u>	01/13/2022 UTILITI	GAS UTILITY ES	GAS UTILITY	0.00	1,067.88 1,067.88	
430	TIME WARNER CABLE		01/13/2022	Virtual Payment			3.63 APA00029
Payable #	Payable Type Account Number		Payable Description t Name	Item Description	Distribut	Payable Amount ion Amount	
<u>0013594122021</u>	Invoice <u>100-1230-7015-6040</u>	01/13/2022 TELEPH	TELEVISION UTILIT ONE (POLICE DPT)	Y TELEVISION UTILITY	0.00	151.27 151.27	
<u>0014188122021</u>	Invoice 100-1230-7015-6055	01/13/2022 TELEPH	TELEVISION UTILIT ONE (MAPLE AVE)		0.00	50.03 50.03	
<u>0241971122521</u>	Invoice 100-1230-7015-6025	01/13/2022	TELEVISION UTILIT ONE (CITY HALL)		0,00	2,812.33 2,812.33	
461	UNDERGROUND SERVICE	ALERT	01/13/2022	Virtual Payment		0.00 21	9.56 APA00029
Payable #	Payable Type Account Number	Post Date Accoun	Payable Description	Item Description		Payable Amount ion Amount	
<u>1220210047</u>	Invoice 700-4050-7068-0000	01/13/2022 CONTR	DIG ALERT - SEWE	R DIG ALERT - SEWER	0.00	125.50 125.50	
DSB20206311	Invoice 700-4050-7068-0000	01/13/2022	DIG ALERT - SEWE		0.00	94.06 94.06	
310	UNITED WINDOW TINT		01/13/2022	Virtual Payment		0.00 25	0.00 APA00029
Payable #	Payable Type	Post Date	Payable Description	-	Discount Amount	Payable Amount	0.00 AFA00025
<u>11/19/21 CHARG</u>	Account Number Invoice	Accoun 01/13/2022 、 VENICL	VEHICLE MAINTEN E MAINTENANCE	ANCE	0.00	ion Amount 250.00	
	<u>100-2050-7037-0000</u>	VENICU		VEHICLE MAINTENANCI		250,00	
484 Payable #	VERIZON Payable Type	Post Date	01/13/2022 Payable Descriptio	Virtual Payment		0.00 13,94 Payable Amount	8.33 APA00029
-		Accoun	t Name	Item Description	Distribut	ion Amount	
	Account Number			•			
<u>9895781925</u>	Account Number Involce <u>100-1230-7015-0000</u>	01/13/2022 TELEPH	PHONE UTILITY	PHONE UTILITY	0.00	6,477.74 6,477.74	
<u>9895989945</u>	Involce <u>100-1230-7015-0000</u> Involce	01/13/2022 TELEPH 01/13/2022	PHONE UTILITY ONE PHONE UTILITY	PHONE UTILITY	0.00	6,477.74 5,427.01	
<u>9895989945</u>	Invoice <u>100-1230-7015-0000</u>	01/13/2022 TELEPH	PHONE UTILITY ONE PHONE UTILITY ONE			6,477.74	
<u>9895989945</u>	Invoice <u>100-1230-7015-0000</u> Invoice <u>100-1230-7015-0000</u>	01/13/2022 TELEPH 01/13/2022 TELEPH	PHONE UTILITY ONE PHONE UTILITY ONE	PHONE UTILITY PHONE UTILITY PHONE UTILITY		5,477.74 5,427.01 2,713.50 2,713.51 1,840.48	
<u>9895989945</u>	Invoice <u>100-1230-7015-0000</u> Invoice <u>100-1230-7015-0000</u> <u>750-7000-7015-0000</u> Invoice <u>750-7100-7015-0000</u>	01/13/2022 TELEPH 01/13/2022 TELEPH TELEPH 01/13/2022 TELEPH	PHONE UTILITY ONE PHONE UTILITY ONE ONE PHONE UTILITY ONE	PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY	0.00	5,477.74 5,427.01 2,713.50 2,713.51 1,840.48 175.21	
<u>9895989945</u>	Invoice 100-1230-7015-0000 Invoice 100-1230-7015-0000 750-7000-7015-0000 Invoice 750-7100-7015-0000 750-7400-7015-0000	01/13/2022 TELEPH 01/13/2022 TELEPH TELEPH 01/13/2022 TELEPH TELEPH	PHONE UTILITY ONE PHONE UTILITY ONE ONE PHONE UTILITY ONE ONE	PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY	0.00	5,477.74 5,427.01 2,713.50 2,713.51 1,840.48 175.21 524.54	
<u>9895989945</u> <u>9895989946</u>	Invoice 100-1230-7015-0000 Invoice 100-1230-7015-0000 750-7000-7015-0000 Invoice 750-7100-7015-0000 750-7400-7015-0000 750-7600-7015-0000	01/13/2022 TELEPH 01/13/2022 TELEPH TELEPH 01/13/2022 TELEPH TELEPH TELEPH	PHONE UTILITY ONE PHONE UTILITY ONE ONE PHONE UTILITY ONE ONE ONE	PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY	0.00	6,477.74 5,427.01 2,713.50 2,713.51 1,840.48 175.21 524.54 438.03	
<u>9895989945</u> <u>9895989946</u>	Invoice 100-1230-7015-0000 Invoice 100-1230-7015-0000 750-7000-7015-0000 750-7100-7015-0000 750-7400-7015-0000 750-7600-7015-0000 750-7700-7015-0000	01/13/2022 TELEPH 01/13/2022 TELEPH TELEPH 01/13/2022 TELEPH TELEPH TELEPH TELEPH	PHONE UTILITY ONE PHONE UTILITY ONE PHONE UTILITY ONE ONE ONE ONE ONE	PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY	0.00	5,477.74 5,427.01 2,713.50 2,713.51 1,840.48 175.21 524.54 438.03 175.77	
<u>9895989945</u> <u>9895989946</u>	Invoice 100-1230-7015-0000 Invoice 100-1230-7015-0000 750-7000-7015-0000 750-7100-7015-0000 750-7400-7015-0000 750-7600-7015-0000 750-7700-7015-0000 750-7800-7015-0000	01/13/2022 TELEPH 01/13/2022 TELEPH TELEPH 01/13/2022 TELEPH TELEPH TELEPH TELEPH	PHONE UTILITY ONE PHONE UTILITY ONE ONE PHONE UTILITY ONE ONE ONE ONE ONE ONE	PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY	0.00	6,477.74 5,427.01 2,713.50 2,713.51 1,840.48 175.21 524.54 438.03 175.77 87.79	
<u>9895989945</u> <u>9895989946</u>	Invoice 100-1230-7015-0000 Invoice 100-1230-7015-0000 750-7000-7015-0000 750-7100-7015-0000 750-7400-7015-0000 750-7600-7015-0000 750-7700-7015-0000	01/13/2022 TELEPH 01/13/2022 TELEPH TELEPH 01/13/2022 TELEPH TELEPH TELEPH TELEPH	PHONE UTILITY ONE PHONE UTILITY ONE ONE PHONE UTILITY ONE ONE ONE ONE ONE ONE ONE	PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY PHONE UTILITY	0.00	5,477.74 5,427.01 2,713.50 2,713.51 1,840.48 175.21 524.54 438.03 175.77	

Check Report								Date Ran	ge: 01/08/20	ltem 2.
Vendor Number	Vendor Name <u>750-8200-7015-0000</u>	Ţ	TELEPHO	Payment Date DNE	Payment Type PHONE UTILITY	Disco	unt Amo	ount Paym 87 . 79	ient Amount	
<u>9895989947</u>	Invoice <u>100-1230-7015-0000</u>	01/13/202 ר	2 TELEPHO	PHONE UTILITY DNE	PHONE UTILITY		0.00	76.02	76.02	
<u>9895989948</u>	Invoice <u>100-1230-7015-0000</u>	01/13/202 ו	2 FELEPHO	PHONE UTILITY DNE	PHONE UTILITY		0.00	76.02	76.02	
<u>9895989949</u>	Invoice <u>100-1230-7015-0000</u>	01/13/202 ר	2 Felepho	PHONE UTILITY DNE	PHONE UTILITY		0.00	51.06	51,06	
2516	VOHNE LICHE KENNELS IN	2		01/13/2022	Virtual Payment		(0.00	190.72	APA000300
Payable #	Payable Type Account Number	Post Date	Account	Payable Description Name	n Item Description			Payable An on Amount		
<u>17759</u>	Invoice <u>100-2080-7070-0000</u>	01/13/202 S		SPECIAL DEPT SUP DEPT SUPPLIES	•		0.00		90.72	
2555	XYLEM DEWATERING SOLU	JTIONS U.S./	A INC	01/13/2022	Virtual Payment		C	0.00	7,734.03	APA00030:
Payable #	Payable Type	Post Date		Payable Descriptio				Payable An		
<u>401136448</u>	Account Number Invoice <u>700-4050-7075-0000</u> <u>700-4050-7075-0000</u>	01/13/202 E	QUIPM		Item Description ATION PUMP RENTAL EXTENDED PUMP RENT MARSHALL LIFT STATIO	AL MARS	0.00	on Amount 7,7 4,831.12 2,902.91	34.03	
2556	XYLEM WATER SOLUTIONS	, INC		01/13/2022	Virtual Payment		C	0.00	5,080,42	APA000302
Payable #	Payable Type Account Number	Post Date A	ccount	Payable Descriptic Name	n Item Description			Payable An on Amount	nount	
<u>3556C02647</u>	Invoice <u>700-4050-8040-0000</u> <u>700-4050-8040-0000</u>		2 QUIPM QUIPM	ENT	LIFT STATION PUMP EXTENDED FOR MARSH MARSHALL CREEK LIFT		0.00	4,7 1,978.10 2,769.37	47.47	
<u>3556C04162</u>	Invoice 700-4050-7070-0000	01/13/202		WWTP EQUIP/MAI	NTENANCE/SUPPLIES WWTP EQUIP/MAINTE		0,00	3 332.95	32.95	

Bank Code APBNK Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	4	4	0.00	80,532.63
Manual Checks	0	0	0.00	0,00
Voided Checks	0	0	0,00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	4	1	0.00	4,172.18
Virtual Payments	93	38	0.00	140,050.76
	101	43	0.00	224,755.57

Date Range: 01/08/20: Item 2.

022

All Bank Codes Check Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	4	4	0.00	80,532.63
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0,00
EFT's	4	1	0.00	4,172.18
Virtual Payments	93	38	0,00	140,050.76
-	101	43	0.00	224,755.57

Fund Summary

Fund	Name	Period	Amount
999	POOLED CASH	1/2022	224,755.57
			224,755,57

AGENDA ITEM NO.



WARRANTS TO BE RATIFIED

Thursday, January 20, 2022

Printed Checks	110914 110915-110931	\$ \$	1,742.61	Pamela Miller Utility Refund Checks
	110932-110933	\$	8,720.96	FY21/22
NvoicePay	APA000303-APA000334	\$	842,675.21	-
•	A/P Total	\$	854,588.78	1. -
Bank Drafts	Charge Back	\$	89,92	Global Payments
				:

I DO HEREBY CERTIFY THIS WARRANT LIST HAS BEEN COMPILED AND PREPARED TO MEET THE DAILY OPERATIONS FOR THE FISCAL YEAR JULY 1, 2021 - JUNE 30, 2022

SIGNATURE TITLE: CITY TRE SURER

City of Beaumont, CA



Check R

By Check

Date Range: 01/14/2022 - 01/20/2022

'endor Number ank Code: APBNK-AP	Vendor Name Bank		Payment Date	Payment Type	Discount Amo	ount Pa	ayment Amount	Number
507	PAMELA MILLER		01/18/2022	Regular	(0.00	1,450.00	110914
Payable #	Payable Type	Post Date	Payable Description	+	Discount Amount	Payable	-	
Payable #	Account Number		nt Name	Item Description	Distribut	•		
2022 0117 22	Invoice	01/18/2022	TRAINING	• • • •	0.00		1,450.00	
<u>2022-0117-23</u>	100-1150-7066-0000		L, EDUCATION, TRA	TRAINING		1,450	.00	
	100 1100 / 000 0000		-, , -	i.				
109	BANK OF HEMET		01/20/2022	Regular		0.00	3,726,94	110932
Payable #	Payable Type	Post Date	Payable Description		Discount Amount	•		
	Account Number		nt Name	Item Description	Distributi	on Amo		
<u>1/27/22</u>	Invoice	01/20/2022	Batwing/Lawnmov		0.00	2 72	3,726.94	
	<u>100-6050-8040-0000</u>	EQUIP	MENT	Batwing/Lawnmower	FY 44	3,726	.94	
311	SOUTHERN CALIFORNIA	EDISON	01/20/2022	Regular		0.00	4,994.02	110933
Payable #	Payable Type	Post Date	Payable Description	on	Discount Amount	Payabl	e Amount	
	Account Number	Accou	nt Name	Item Description	Distribut	ion Amo	unt	
1/31/22	Invoice	01/20/2022	ELECTRIC UTILITY		0.00		4,994.02	
<u></u>	100-3250-7010-0000	UTILIT	IES	ELECTRIC UTILITY		2,601	.01	
	100-3250-7010-007A	UTILIT	IES (IA 7A)	ELECTRIC UTILITY		185	.18	
	100-3250-7010-007D	UTILIT	IES (IA 7D)	ELECTRIC UTILITY		142	.00	
	100-3250-7010-008A	UTILIT	IES (IA 8A)	ELECTRIC UTILITY		494	.06	
	100-3250-7010-008B	UTILIT	IES (IA 8B)	ELECTRIC UTILITY		97	.90	
	100-3250-7010-008C	UTILIT	IES (IA 8C)	ELECTRIC UTILITY		260	.48	
	100-3250-7010-008D	UTILIT	IES (IA 8D)	ELECTRIC UTILITY		27	.89	
	100-3250-7010-010A	UTILIT	IES (IA 10)	ELECTRIC UTILITY		53	.95	
	100-3250-7010-012A	UTILIT	IES (IA 12)	ELECTRIC UTILITY		113	.35	
	<u>100-3250-7010-014X</u>	UTILIT	IES (IA 14)	ELECTRIC UTILITY			3.60	
	100-3250-7010-019A	UTILIT	IES (IA 19A)	ELECTRIC UTILITY		262	83	
	<u>100-3250-7010-019C</u>	UTILIT	IES (IA 19C)	ELECTRIC UTILITY		262	.13	
	100-3250-7010-06A1	UTILIT	IES (IA 6A1)	ELECTRIC UTILITY		387	.35	
	<u>100-6050-7010-06A1</u>	UTILIT	IES IA 6A1	ELECTRIC UTILITY		57	.29	
1849	AKEL ENGINEERING GRO		01/20/2022	Virtual Payment		0.00	3,715.00	APA00030
Payable #	Payable Type	Post Date	Payable Descripti	-	Discount Amount	Payabl	e Amount	
rayable #	Account Number		nt Name	Item Description	Distribut	ion Amo	unt	
21765-01	Invoice	01/20/2022		Vastewater Master Plan	0.00		3,715.00	
<u>21(0) 01</u>	710-0000-7068-0000		RACTUAL SERVICE	Wastewater Master P		3,715	.00	
			04/20/2022	Virtual Payment		0.00	04 22	APA0003
042	ALL PURPOSE RENTALS		01/20/2022		Discount Amount			ArAuuusi
Payable #	Payable Type	Post Date	Payable Descripti		Discount Amount Distribut	*		
	Account Number		nt Name SPECIAL DEPT SUI	Item Description	0.00		94.32	
<u>47259</u>	Invoice	01/20/2022	AL DEPT SUPPLIES	SPECIAL DEPT SUPPLI		94	1.32	
	<u>100-3250-7070-0000</u>	SPECH		SPECIAL DEL 1 SOLTE	2.5	5		
618	AT&T MOBILITY		01/20/2022	Virtual Payment		0.00	885.28	APA0003
Payable #	Payable Type	Post Date	Payable Descripti	-	Discount Amount	Payabl	e Amount	
i a fabie ii	Account Number	Accou	nt Name	Item Description	Distribut	ion Amc	unt	
287302055450X0		01/20/2022	TELEPHONE UTILI	ΤY	0.00		885.28	
<u></u>	100-1230-7015-6040	TELEP	HONE (POLICE DPT)	TELEPHONE UTILITY		889	5.28	
			01/20/2022	Virtual Payment		0,00	51 711 41	APA00030
147	BEAUMONT CHERRY VAL	TEY WATER DIST.	0177077077					

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<u>1/31/22</u>

er	Vendor Name	Payment Date	• • • •	Discount Amount Payment Amoun	it Ni <i>Item</i> 2.
	Payable Type	Post Date Payable Descrip		Discount Amount Payable Amount	
	Account Number	Account Name	Item Description	Distribution Amount	
	Invoice	01/20/2022 WATER UTILITY		0.00 51,711.41	
	<u>100-3250-7010-0000</u>	UTILITIES	WATER UTILITY	6,605.38	
	<u>100-3250-7010-007A</u>	UTILITIES (IA 7A)	WATER UTILITY	1,221.50	
	<u>100-3250-7010-007B</u>	UTILITIES (IA 7B)	WATER UTILITY	432.80	
	<u>100-3250-7010-008A</u>	UTILITIES (IA 8A)	WATER UTILITY	336.95	
	<u>100-3250-7010-008B</u>	UTILITIES (IA 8B)	WATER UTILITY	398.69	
	<u>100-3250-7010-010A</u>	UTILITIES (IA 10)	WATER UTILITY	725.72	
	<u>100-3250-7010-012A</u>	UTILITIES (IA 12)	WATER UTILITY	374.73	
	<u>100-3250-7010-014B</u>	UTILITIES (IA 14B)	WATER UTILITY	699.65	
	<u>100-3250-7010-014X</u>	UTILITIES (IA 14)	WATER UTILITY	4,983.79	
	<u>100-3250-7010-015X</u>	UTILITIES (IA 15)	WATER UTILITY	1,459.66	
	<u>100-3250-7010-016X</u>	UTILITIES (IA 16)	WATER UTILITY	756.65	
	<u>100-3250-7010-018X</u>	UTILITIES (IA 18)	WATER UTILITY	489.89	
	100-3250-7010-019A	UTILITIES (IA 19A)	WATER UTILITY	831.89	
	<u>100-3250-7010-019C</u>	UTILITIES (IA 19C)	WATER UTILITY	82.83	
	<u>100-3250-7010-06A1</u>	UTILITIES (IA 6A1)	WATER UTILITY	2,558.67	
	100-6000-7010-6025	UTILITIES - CITY HALL	WATER UTILITY	1,679.88	
	100-6000-7010-6031	UTILITIES - CITY HALL BLD	WATER UTILITY	232.41	
	100-6000-7010-6032	UTILITIES - CITY HALL BLD	WATER UTILITY	378.42	
	100-6000-7010-6040	UTILITIES - POLICE DEPT	WATER UTILITY	469.10	
	100-6000-7010-6041	UTILITIES - POLICE ANNEX	WATER UTILITY	273.90	
	100-6000-7010-6045	UTILITIES - COMMUNITY	WATER UTILITY	523.32	
	100-6050-7010-0000	UTILITIES	WATER UTILITY	690.50	-
	100-6050-7010-003X	UTILITIES IA 3	WATER UTILITY	3,285.68	
	100-6050-7010-007A	UTILITIES IA 7A	WATER UTILITY	653.96	
	100-6050-7010-008A	UTILITIES IA 8A (SUNDAN	WATER UTILITY	5,267.46	
	100-6050-7010-008C	UTILITIES IA 8C	WATER UTILITY	29.15	
	100-6050-7010-008D	UTILITIES IA 8D	WATER UTILITY	158,98	
	100-6050-7010-008E	UTILITIES IA 8E	WATER UTILITY	157.01	
	100-6050-7010-014A	UTILITIES IA 14A (OAK VA	WATER UTILITY	567.10	
	100-6050-7010-014B	UTILITIES IA 14B	WATER UTILITY	1,628.78	
	100-6050-7010-017A	UTILITIES IA 17A (TOURN	WATER UTILITY	1,724.98	
	100-6050-7010-017C	UTILITIES IA 17C	WATER UTILITY	226.68	
	100-6050-7010-018X	UTILITIES IA 18	WATER UTILITY	29.15	
	100-6050-7010-019C	UTILITIES IA 19C	WATER UTILITY	337.33	
	100-6050-7010-020X	UTILITIES IA 20	WATER UTILITY	541.84	
	100-6050-7010-06A1	UTILITIES IA 6A1	WATER UTILITY	388.02	
	100-6050-7010-1601	UTILITIES IA 1601	WATER UTILITY	1,107.46	
	<u>100-6050-7010-1001</u>	UTILITIES, PARK (DEFORG		307.40	
	<u>100-6050-7010-5200</u>	UTILITIES, PARK (PALMER		15.43	
	100-6050-7010-5250	UTILITIES, PARK (RANGEL		736.85	
	100-6050-7010-5350	UTILITIES, PARK (SHADO	WATER UTILITY	29.15	
	<u>100-6050-7010-5400</u>	UTILITIES, PARK (SPORTS	WATER UTILITY	3,014.23	
	<u>100-6050-7010-5450</u> 100-6050-7010-5450	UTILITIES, PARK (STETSON		2,714.86	
	<u>100-6050-7010-5430</u> 100-6050-7010-5500	UTILITIES, PARK (STEWAR		687.94	
	-	UTILITIES, PARK (TREVING		79.49	
	<u>100-6050-7010-5600</u>			56.47	
	<u>100-6050-7010-5650</u>	UTILITIES, PARK (VETERA		1,210.37	
	<u>100-6050-7010-5700</u> 700-4050-7010-0000	UTILITIES, PARK (WILD FL UTILITIES	WATER UTILITY	529.31	
	700-4050-7010-0000		WATER UTILITY	20.00	
	<u>700-4050-7010-019C</u>	UTILTIIES (IA 19C)	WATER OTICITY	20.00	
	BRUCE E. MIHELICH INC	01/20/2022	Virtual Payment	0.00 3,498.4	9 APA000307
	Payable Type	Post Date Payable Descrip		Discount Amount Payable Amount	
	Account Number	Account Name	Item Description	Distribution Amount	
	Invoice	01/20/2022 SPECIAL DEPT SU		0.00 3,498.49	
	100-3250-7001-0000	ADMIN OVERHEAD	SPECIAL DEPT SUPPLIES	5 3,498.49	
	CED	01/20/2022	Virtual Payment	0.00 1,076.1	4 APA000308

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Date Range: 01/14/2022 - ----

Check Report						Date Nang	ge: 01/14/2022	
Vendor Number	Vendor Name		Payment Date			t Amount Paym		Ni Item 2.
Payable #	Payable Type	Post Date	Payable Descriptio			ount Payable Ar	nount	
	Account Number		t Name	Item Description		tribution Amount		
<u>0954-1007598</u>	Invoice	01/20/2022	DEPARTMENT SUP				39.78	
	<u>100-3250-7070-0000</u>	SPECIA	L DEPT SUPPLIES	DEPARTMENT SUPPLIE	S - ELECT	1,139.78		
0954-1007716	Invoice	01/20/2022	DEPARTMENT SUP	PLIES - ELECTRICAL		0.00	36.56	
	<u>100-3250-7070-0000</u>	SPECIA	L DEPT SUPPLIES	DEPARTMENT SUPPLIE	S - ELECT	36.56		
0954-1007723	Involce	01/20/2022	DEPARTMENT SUP	PLIES - ELECTRICAL		0.00	48.49	
0504-1007720	100-3250-7070-0000		L DEPT SUPPLIES	DEPARTMENT SUPPLIE	S - ELECT	48.49		
		01/20/2022		PLIES - ELECTRICAL		0.00	109.91	
<u>0954-1007773</u>	Involce		L DEPT SUPPLIES	DEPARTMENT SUPPLIE		109.91		
	<u>100-3250-7070-0000</u>							
0954-1008903	Credit Memo	01/20/2022		PLIES - ELECTRICAL			258.60	
	<u>100-3250-7070-0000</u>	SPECIA	L DEPT SUPPLIES	DEPARTMENT SUPPLIE		-258.60		
			01/20/2012	Virtual Payment		0.00	596 54	APA000309
1285	CITY OF BANNING	Post Date	01/20/2022 Payable Descriptio	•	Discount Am	ount Payable Ai		A. 4000000
Payable #	Payable Type		it Name	Item Description		tribution Amount		
	Account Number	01/20/2022	FIRST AID	nem beschphoit			100.00	
<u>2021137972</u>	Invoice 100.2050-5018-0000	FIRST A		FIRST AID	,	400.00		
	<u>100-2050-6019-0000</u>			· · · ·			196.54	
<u>74105-54930 1/1</u>	Invoice	01/20/2022 UTILITI		IGNAL UTILITY @ HS W SHARED TRAFFIC SIGN		196.54	190,94	
	<u>100-3250-7010-0000</u>	Utititi	63	SHARED TRAFFIC SIGN		100.04		
1007	CITY OF CALIMESA		01/20/2022	Virtual Payment		0.00	1,800.00	APA000310
1287 Payable #	Payable Type	Post Date	Payable Descriptio		Discount Am	ount Payable A	mount	
Payable #	Account Number		it Name	Item Description		tribution Amount		
DECEMBER 2021	Invoice	01/20/2022		AGREEMENT FEES		0.00 1,8	800.00	
DECEMPENEOUX	100-0000-2230-0000		OPMENT FEE - DUE	CALIMESA PERMIT AG	REEMENT	1,800.00		
	<u> </u>			1				
15.50	COUNTY OF RIVERSIDE IN	CONVERSION TECH	10 00/00/0000	1 // . (/ D		0.00	1 207 21	APA000311
4308	COOM LA ON RIACKSIDE IN	FORMATION TECH	NC 01/20/2022	Virtual Payment		0.00	1,387.21	AFA000511
	Payable Type	Post Date	Payable Description	•		ount Payable A	mount	AFA000511
4308 Payable #		Post Date		•	Dis	ount Payable An tribution Amount	mount	AFA000511
	Payable Type	Post Date Accour 01/20/2022	Payable Description It Name CONTRACTUAL SE	on Item Description RVICES	Dis	ount Payable An tribution Amount 0.00 1,	mount 387,21	AFAUUUSII
Payable #	Payable Type Account Number	Post Date Accour 01/20/2022	Payable Description Name	n Item Description	Dis	ount Payable An tribution Amount	mount 387,21	AFA000511
Payable # <u> T0000</u> 004907	Payable Type Account Number Invoice <u>100-1230-7058-0000</u>	Post Date Accour 01/20/2022	Payable Description It Name CONTRACTUAL SE ACTUAL SERVICES	on Item Description RVICES CONTRACTUAL SERVIC	Dis	ount Payable An tribution Amount 0.00 1, 1,387.21	mount 387,21	
Payable # <u>(T0000004907</u> 3290	Payable Type Account Number Invoice <u>100-1230-7058-0000</u> DATAXTEL INC	Post Date Accour 01/20/2022 CONTR	Payable Description It Name CONTRACTUAL SE ACTUAL SERVICES 01/20/2022	on Item Description RVICES CONTRACTUAL SERVIC Virtual Payment	Dis	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00	mount 387.21 1,456.58	APA000312
Payable # <u> T0000</u> 004907	Payable Type Account Number Invoice <u>100-1230-7068-0000</u> DATAXTEL INC Payable Type	Post Date Accour 01/20/2022 CONTR Post Date	Payable Description It Name CONTRACTUAL SE ACTUAL SERVICES 01/20/2022 Payable Description	on Item Description RVICES CONTRACTUAL SERVIC Virtual Payment on	Dis CES Discount Am	ount Payable Ar tribution Amount 0.00 1, 1,387.21 0.00 ount Payable A	mount 387.21 1,456.58 mount	
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Payable # <u>170000004907</u> 3290 Payable # <u>4498</u> 1392 Payable #	Payable Type Account Number Invoice <u>100-1230-7058-0000</u> DATAXTEL INC Payable Type Account Number Invoice <u>100-1230-7068-0000</u> DELL MARKETING L.P. Payable Type Account Number Invoice <u>100-0000-2060-0000</u> <u>100-1230-7072-0000</u>	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPU	Payable Description t Name CONTRACTUAL SEI ACTUAL SERVICES 01/20/2022 Payable Description t Name CONTRACTUAL SEI 01/20/2022 Payable Description t Name DELL HARDWARE IN X PAYABLE JTER SUPPLIES/MA JTER SUPPLIES/MA	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI DELL HARDWARE REPI	Dis Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.28	mount 387.21 1,456.58 456.58 26,417.03 mount 417.03	APA000312 APA000313
Payable # <u>(TOOOQOO049077</u> 3290 Payable # <u>4498</u> 1392 Payable # <u>10529530970</u>	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-0000 100-1230-7072-6040	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPI	Payable Description t Name CONTRACTUAL SEI ACTUAL SERVICES 01/20/2022 Payable Description t Name CONTRACTUAL SEI 01/20/2022 Payable Description t Name DELL HARDWARE IN X PAYABLE JTER SUPPLIES/MA JTER SUPPLIES/MA	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI DELL HARDWARE REPI DELL HARDWARE REPI	Dis CES Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN LACEMEN LACEMEN	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00	mount 387.21 1,456.58 456.58 26,417.03 mount 417.03	APA000312
Payable # <u>170000004907</u> 3290 Payable # <u>4498</u> 1392 Payable # <u>10529530970</u>	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-0000 100-1230-7072-6040	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPI COMPI	Payable Description t Name CONTRACTUAL SEI ACTUAL SERVICES 01/20/2022 Payable Description t Name CONTRACTUAL SEI 01/20/2022 Payable Description t Name DELL HARDWARE IN DELL HARDWARE IN JTER SUPPLIES/MA JTER SUPPLIES/MA 01/20/2022 Payable Description	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI DELL HARDWARE REPI DELL HARDWARE REPI	Dis CES Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN LACEMEN LACEMEN	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 ount Payable A	mount 387.21 1,456.58 456.58 26,417.03 mount 417.03 459.58 mount	APA000312 APA000313
Payable # <u>(TOOOQOO4907</u> 3290 Payable # <u>4498</u> 1392 Payable # <u>10529530970</u> 1424 Payable #	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-6040 DIRECTV Payable Type Account Number	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPI COMPI	Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN 01/20/2022 Payable Description t Name	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI	Dis CES Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN LACEMEN LACEMEN	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 tount Payable An tribution Amount	mount 1,456.58 mount 456.58 26,417.03 mount 417.03 459.58 mount	APA000312 APA000313
Payable # <u>(TOOOQOO049077</u> 3290 Payable # <u>4498</u> 1392 Payable # <u>10529530970</u>	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-0000 100-1230-7072-6040 DIRECTV Payable Type Account Number Invoice	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPI COMPI	Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN 01/20/2022 Payable Description t Name TELEVISION UTILIT	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI	Dis CES Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN LACEMEN LACEMEN	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 tount Payable An tribution Amount	mount 1,456.58 mount 456.58 26,417.03 mount 417.03 459.58	APA000312 APA000313
Payable # <u>(TOOOQOO4907</u> 3290 Payable # <u>4498</u> 1392 Payable # <u>10529530970</u> 1424 Payable #	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-6040 DIRECTV Payable Type Account Number	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPI COMPI	Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN 01/20/2022 Payable Description t Name TELEVISION UTILIT	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI	Dis CES Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN LACEMEN LACEMEN	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 tount Payable An tribution Amount 0.00 26, 20.46	mount 1,456.58 mount 456.58 26,417.03 mount 417.03 459.58	APA000312 APA000313
Payable # [T0000004907] 3290 Payable # 4498 1392 Payable # 10529530970 1424 Payable # 057318158X2112	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-0000 100-1230-7072-6040 DIRECTV Payable Type Account Number Invoice	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPI COMPI	Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN DELL HARDWARE IN 01/20/2022 Payable Description t Name TELEVISION UTILIT	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI	Dis CES Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN LACEMEN LACEMEN	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 tount Payable An tribution Amount 0.00 26, 20.46	mount 1,456.58 mount 456.58 26,417.03 mount 417.03 459.58 mount 459.58	APA000312 APA000313
Payable # <u>(TOOOQOO4907</u> 3290 Payable # <u>4498</u> 1392 Payable # <u>10529530970</u> 1424 Payable #	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-0000 100-1230-7072-6040 DIRECTV Payable Type Account Number Invoice 100-1550-7010-0000	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPI COMPI	Payable Description t Name CONTRACTUAL SERVICES O1/20/2022 Payable Description t Name CONTRACTUAL SERVICES O1/20/2022 Payable Description t Name DELL HARDWARE IN DELL HARDWARE IN D	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI	Dis CES Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN LACEMEN	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 tount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28	mount 1,456.58 mount 456.58 26,417.03 mount 417.03 459.58 mount 459.58 1,560.00	APA000312 APA000313 APA000314
Payable # [T0000004907] 3290 Payable # 4498 1392 Payable # 10529530970 1424 Payable # 057318158X2112 3779	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-0000 100-1230-7072-6040 DIRECTV Payable Type Account Number Invoice 100-1550-7010-0000 EDGAR L ALVAREZ	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPU COMPU Post Date Accour 01/20/2022 USE TA COMPU COMPU	Payable Description t Name CONTRACTUAL SERVICES O1/20/2022 Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name DELL HARDWARE IN DELL HARDWARE IN DI/20/2022 PAYABLE DI/20/2022 PAYABLE IN DI/20/2022 PAYABLE IN DI/20/2022	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI	Dis CES Discount Am Dis CES Discount Am LACEMEN LACEMEN LACEMEN LACEMEN Discount Am Dis	ount Payable An tribution Amount 0.00 1, 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00	mount 1,456.58 mount 456.58 26,417.03 mount 417.03 459.58 1,560.00 mount	APA000312 APA000313 APA000314
Payable # [T0000004907] 3290 Payable # 4498 1392 Payable # 10529530970 1424 Payable # 057318158X2112 3779	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING LP. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-0000 100-1230-7072-6040 DIRECTV Payable Type Account Number Invoice 100-1550-7010-0000 EDGAR L ALVAREZ Payable Type	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPU COMPU Post Date Accour 01/20/2022 USE TA COMPU COMPU	Payable Description to Name CONTRACTUAL SERVICES O1/20/2022 Payable Description to Name CONTRACTUAL SERVICES O1/20/2022 Payable Description to Name DELL HARDWARE IN DELL HARDWARE IN	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment ON Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI Virtual Payment ON Item Description Y TELEVISION UTILITY Virtual Payment ON	Dis CES Discount Am Dis CES Discount Am LACEMEN LACEMEN LACEMEN LACEMEN Discount Am Dis	ount Payable An tribution Amount 0.00 1,; 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 tribution Amount 0.00 459.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	mount 1,456.58 mount 456.58 26,417.03 mount 417.03 459.58 1,560.00 mount 560.00	APA000312 APA000313 APA000314
Payable # (TOOOQOO49077 3290 Payable # 4498 1392 Payable # 10529530970 1424 Payable # 057318158X2112 3779 Payable #	Payable Type Account Number Invoice 100-1230-7058-0000 DATAXTEL INC Payable Type Account Number Invoice 100-1230-7068-0000 DELL MARKETING L.P. Payable Type Account Number Invoice 100-0000-2060-0000 100-1230-7072-0000 100-1230-7072-6040 DIRECTV Payable Type Account Number Invoice 100-1550-7010-0000 EDGAR L ALVAREZ Payable Type Account Number	Post Date Accour 01/20/2022 CONTR Post Date Accour 01/20/2022 USE TA COMPU COMPU Post Date Accour 01/20/2022 USE TA COMPU COMPU Post Date Accour 01/20/2022	Payable Description t Name CONTRACTUAL SERVICES O1/20/2022 Payable Description t Name CONTRACTUAL SERVICES 01/20/2022 Payable Description t Name DELL HARDWARE IN DELL HARDWARE IN DI/20/2022 Payable Description t Name TELEVISION UTILITY ES 01/20/2022 Payable Description t Name	Item Description RVICES CONTRACTUAL SERVIC Virtual Payment Item Description RVICES CONTRACTUAL SERVIC Virtual Payment ON Item Description REPLACEMENT PC/MO DELL HARDWARE REPI DELL HARDWARE REPI Virtual Payment ON Item Description Y TELEVISION UTILITY Virtual Payment ON	Dis CES Discount Am Dis CES Discount Am Dis LACEMEN LACEMEN LACEMEN LACEMEN Discount Am Dis	ount Payable An tribution Amount 0.00 1,; 1,387.21 0.00 ount Payable An tribution Amount 0.00 1, 1,456.58 0.00 ount Payable An tribution Amount 0.00 26, 20.46 13,198.29 13,198.28 0.00 tribution Amount 0.00 459.58 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	mount 1,456.58 mount 456.58 26,417.03 mount 417.03 459.58 1,560.00 mount 560.00	APA000312 APA000313 APA000314

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Check Report						Date Range: 01	/14/202	2 -
Vendor Number	Vendor Name		Payment Date	Payment Type	Discount Amo	ount Payment A	• •	11.000
1533	FRONTIER COMMUNICATI	ONS	01/20/2022	Virtual Payment				APA000316
Payable #	Payable Type	Post Date	Payable Descripti	on	Discount Amount	Payable Amount	t	
	Account Number	Accou	nt Name	Item Description	Distribut	ion Amount		
<u>951-197-0624-08</u>	Invoice	01/20/2022	TELEPHONE UTIL		0.00	250.93	1	
	<u>100-1230-7015-6040</u>	TELEPI	HONE (POLICE DPT)	TELEPHONE UTILITY		250.93		
<u>951-197-0863-06</u>	Invoice	01/20/2022	TELEPHONE UTILI	ΤY	0.00	356.09	}	
	700-4050-7015-0000	TELEP	IONE	TELEPHONE UTILITY		356.09		
<u>951-769-6032-08</u>	Invoice	01/20/2022	TELEPHONE UTIL	TY	0.00	68.81	L	
	<u>100-1230-7015-5400</u>	TELEPI	HONE - SPORTS PAR	TELEPHONE UTILITY		68.81		
<u>951-769-8533-09</u>	Invoice	01/20/2022	TELEPHONE UTIL	тү	0.00	53.05	i	
	<u>750-7300-7015-0000</u>	TELEPI	HONE	TELEPHONE UTILITY		53.05		
				1				
3906	GUY THOMAS		01/20/2022	Virtual Payment		,		APA000317
Payable #	Payable Type	Post Date	Payable Description		Discount Amount	•	t	
	Account Number		nt Name	Item Description		ion Amount		
<u>357441</u>	Invoice	01/20/2022	EQUIPMENT RENT MENT LEASING/RE		0.00	1,000.00 1,000.00	,	
	100-3250-7075-0000	EQUIP	WENT LEASING/RE	EQUIPMENT RENTAL		1,000.00		
1612	HEARD'S INVESTIGATIONS	AND POLYGRAPH	11 01/20/2022	Virtual Payment		0.00	175.00	APA000318
Payable #	Payable Type	Post Date	Payable Description		Discount Amount			1111000010
, a junic n	Account Number		nt Name	Item Description		on Amount		
<u>7350</u>	Invoice	01/20/2022	RECRUITMENT	•	0.00	175.00)	
	<u>100-1240-6050-0000</u>	RECRU	ITMENT AND HIRI	RECRUITMENT		175.00		
1806	KONICA MINOLTA PREMIE	R FINANCE	01/20/2022	Virtual Payment		•		APA000319
Payable #	Payable Type	Post Date	Payable Description		Discount Amount	-	1	
	Account Number		nt Name	Item Description		ion Amount		
<u>461264236</u>	Invoice	01/20/2022	EQUIPMENT RENT		0.00	3,443.57	·	
	<u>100-1230-7075-6025</u>	-	MENT LEASING/RE	EQUIPMENT RENTAL		796.23 398.11		
	<u>100-1230-7075-6026</u>		MENT LEASING/RE MENT LEASING/RE	EQUIPMENT RENTAL		997.66		
	<u>100-1230-7075-6040</u> 100-1230 <u>-7075-6041</u>	•	MENT LEASING/RE	EQUIPMENT RENTAL		398.11		
	<u>100-1250-7075-0041</u> 700-4050-7075-0000		MENT LEASING/RE	EQUIPMENT RENTAL		398.12		
	<u>750-7000-7075-0000</u>	-	MENT LEASING/RE	EQUIPMENT RENTAL		455.34		
	<u>/30//000//0/2 0000</u>		······································					
1317	OCCUPATIONAL HEALTH O	ENTERS	01/20/2022	Virtual Payment	, 4	0.00	215.00	APA000320
Payable #	Payable Type	Post Date	Payable Description	on	Discount Amount	Payable Amount	:	
	Account Number		nt Name	Item Description		on Amount		
<u>73978935</u>	Invoice	01/20/2022	RECRUTMENT		0.00	65.00)	
	<u>100-1240-6050-0000</u>	RECRU	ITMENT AND HIRI	RECRUTMENT		65.00		
74048012	Invoice	01/20/2022	FIRST AID		0.00	150.00)	
	<u>100-1240-6050-0000</u>	RECRU	ITMENT AND HIRI	FIRST AID		65.00		
	<u>750-7400-6019-0000</u>	FIRST /		FIRST AID		40.00		
	750-7600-6019-0000	FIRST /	AID.	FIRST AID		45.00		
2004			5 U 01/20/2022	Virtual Payment		0.00	512 52	APA000321
2064 Bevelala #	PITNEY BOWES GLOBAL FI	Post Date	Payable Description	-	Discount Amount			AFA000521
Payable #	Payable Type Account Number		nt Name	Item Description		on Amount	•	
<u>3105236622</u>	Invoice	01/27/2022	EQUIPMENT RENT		0.00	513.52	1	
<u>STAATAAAPP</u>	100-1230-7075-0000		MENT LEASING/RE	EQUIPMENT RENTAL		513,52		
			, -					
3642	PLACEWORKS, INC		01/20/2022	Virtual Payment		0.00 14,	095.00	APA000322
Payable #	Payable Type	Post Date	Payable Description	on	Discount Amount			
	Account Number		nt Name	Item Description		on Amount		
<u>77320</u>	Invoice	01/20/2022		tation EIR Peer Review	0.00	14,095.00	1	
	<u>100-1350-7068-0000</u>	CONTR	ACTUAL SERVICES	Exeter - Summit Statio	n EIR Peer	14,095.00		
2020	DOINTING & DOCLADION	DILIS INC	01/20/2022	Virtual Payment		0.00	ንንና ያስ	APA000323
2076	PRINTING & PROMOTION	rlus, INC.	01/20/2022	virtuai rayillent		2.00	220.00	AT AUUV343

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Item 2. Discount Amount Payment Amount N Payment Date Payment Type Vendor Number Vendor Name Discount Amount Payable Amount **Payable Description** Payable Type Post Date Payable # **Distribution Amount** Account Number Account Name Item Description 0.00 226.80 OFFICE SUPPLIES 80344 Invoice 01/20/2022 OFFICE SUPPLIES 226.80 OFFICE SUPPLIES 100-1240-7025-0000 Virtual Payment 0.00 174.93 APA000324 PRUDENTIAL OVERALL SUPPLY 01/20/2022 3652 Post Date **Payable Description** Discount Amount Payable Amount Payable Type Payable # **Distribution Amount** Account Number Account Name Item Description 01/20/2022 Streets - Prudential Uniforms 0.00 58.31 Invoice 23253463 58.31 UNIFORMS Streets - Prudential Uniforms 100-3250-7065-0000 Streets - Prudential Uniforms 01/20/2022 0.00 58.31 <u>23257354</u> Invoice UNIFORMS Streets - Prudential Uniforms 58.31 100-3250-7065-0000 Streets - Prudential Uniforms 0.00 58.31 01/20/2022 23260507 Invoice Streets - Prudential Uniforms 58.31 UNIFORMS 100-3250-7065-0000 01/20/2022 QUILL CORPORATON Virtual Payment 0.00 190.52 APA000325 2098 Post Date **Payable Description** Discount Amount Payable Amount Payable # Payable Type **Distribution Amount** Account Number Account Name Item Description 01/20/2022 OFFICE SUPPLIES 0.00 190.52 <u>21588971</u> Invoice OFFICE SUPPLIES 190.52 100-1200-7025-0000 OFFICE SUPPLIES 0.00 446.25 APA000326 01/20/2022 Virtual Payment **OUINN COMPANY** 3035 Post Date **Payable Description** Discount Amount Payable Amount Pavable Type Payable # Item Description **Distribution Amount** Account Number Account Name 0.00 01/20/2022 SPECIAL DEPT SUPPLIES 446.25 WOA00034572 Invoice SPECIAL DEPT SUPPLIES 100-3250-7070-0000 SPECIAL DEPT SUPPLIES 446.25 01/20/2022 Virtual Payment 0.00 2,053.00 APA000327 SCOTT BROSIOUS 4434 Discount Amount **Payable Amount** Post Date **Payable Description** Payable # Payable Type Item Description Distribution Amount Account Name Account Number 2,053.00 01/20/2022 CONTRACTUAL SERVICES 0.00 <u>B122321</u> Invoice 2,053.00 100-1230-7068-0000 CONTRACTUAL SERVICES CONTRACTUAL SERVICES 0.00 597.00 APA000328 01/20/2022 Virtual Payment SECURITY SIGNAL DEVICES, INC 2026 Discount Amount Payable Amount **Payable Description** Payable # Payable Type Post Date Item Description **Distribution Amount** Account Name Account Number 01/20/2022 SECURITY SERVICES 0.00 597.00 S-01061261 Invoice SECURITY - POLICE DEPT SECURITY SERVICES 597.00 100-6000-7087-6040 0.00 11,147.05 APA000329 SLOVAK BARON EMPEY MURPHY & PINKNEY 01/20/2022 Virtual Payment 2295 Discount Amount Payable Amount Payable Description Payable # Payable Type Post Date Item Description **Distribution Amount** Account Number Account Name 01/20/2022 LEGAL SERVICES 0.00 5,272.50 Invoice 68871 LEGAL SERVICES 5,272.50 CONTRACTUAL SERVICES 700-4050-7068-0000 LEGAL SERVICES 0,00 5,874.55 Invoice 01/20/2022 <u>68874</u> CONTRACTUAL SERVICES LEGAL SERVICES 5,874.55 700-4050-7068-0000 THERESA MICHEL INVESTIGATIONS 01/20/2022 Virtual Payment 0.00 1,500.00 APA000330 4267 Post Date **Payable Description** Discount Amount **Payable Amount** Payable Type Payable # Item Description **Distribution Amount** Account Number Account Name 0,00 1,500.00 01/20/2022 RECRUITMENT Invoice 2022-2 100-1240-6050-0000 RECRUITMENT 1,500.00 RECRUITMENT AND HIRI TYLER WORKS - TECHNOLOGIES 01/20/2022 Virtual Payment 0.00 13,443.75 APA000331 2457 Payable Type Post Date **Payable Description** Discount Amount Payable Amount Payable # Item Description **Distribution Amount** Account Number Account Name SOFTWARE 0.00 130.00 01/20/2022 025-358833 Invoice 100-1230-7071-0000 SOFTWARE 130.00 SOFTWARE

0.00 260.00

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Date Range: 01/14/2022 -Item 2. Payment Date Discount Amount Payment Amount N Payment Type Vendor Number Vendor Name SOFTWARE SOFTWARE 260.00 100-1230-7071-0000 01/20/2022 SOFTWARE 0.00 130,00 025-361218 Invoice SOFTWARE 130.00 100-1230-7071-0000 SOFTWARE 01/20/2022 SOFTWARE 0.00 50.00 025-361511 Invoice 50.00 SOFTWARE SOFTWARE 100-1230-7071-0000 01/20/2022 FY22 2ND QTR UTILITY BILLING 0.00 12,873.75 025-362643 Invoice 700-4050-7068-0000 CONTRACTUAL SERVICES FY22 2ND QTR UTILITY BILLING 12,873.75 WESTERN RIVERSIDE COUNTY REGIONAL CONS 01/20/2022 Virtual Payment 0.00 149,441.36 APA000332 2540 Post Date **Payable Description** Discount Amount Payable Amount Payable # Payable Type Account Number Account Name Item Description **Distribution Amount** DECEMBER 2021 Invoice 01/20/2022 DECEMBER 2021 MSHCP FEES 0.00 149,441.36 570-0000-2005-0000 DUE TO WRCRCA (MSHCP DECEMBER 2021 MSHCP FEES 149,441.36 0.00 48,100.00 APA000333 WILMINGTON TRUST, N.A. 01/20/2022 Virtual Payment 2911 Discount Amount Payable Amount Payable Type Post Date **Payable Description** Payable # **Distribution Amount** Account Name **Item Description** Account Number 01/20/2022 TRUSTEE FEES 0,00 1,800.00 20200314-62756- Invoice TRUSTEE FEES 1,800.00 250-0000-7051-0000 TRUSTEE FEES TRUSTEE FEES 01/20/2022 0.00 1.500.00 20200807-10135 Invoice TRUSTEE FEES TRUSTEE FEES 1,500.00 250-0000-7051-0000 01/20/2022 CONTRACTUAL SERVICES WASTEWATER B 0.00 2,000.00 20200926-84025- Invoice CONTRACTUAL SERVICES CONTRACTUAL SERVICES WAST 2,000.00 700-4050-7068-0000 01/20/2022 TRUSTEE FEES 0.00 2,000.00 20201107-84974- Invoice TRUSTEE FEES TRUSTEE FEES 2,000.00 250-0000-7051-0000 20201107-85710- Invoice 01/20/2022 TRUSTEE FEES 0.00 2,000.00 2,000.00 250-0000-7051-0000 TRUSTEE FEES TRUSTEE FEES 01/20/2022 TRUSTEE FEES 0.00 2,000.00 20201206-85773- Involce TRUSTEE FEES **TRUSTEE FEES** 2,000.00 250-0000-7051-0000 2,000.00 0.00 20210311-87925- Invoice 01/20/2022 TRUSTEE FEES TRUSTEE FEES TRUSTEE FEES 2,000.00 250-0000-7051-0000 01/20/2022 TRUSTEE FEES 0.00 1,800.00 20210314-62756- Invoice TRUSTEE FEES 1,800.00 250-0000-7051-0000 TRUSTEE FEES 01/20/2022 TRUSTEE FEES 0.00 2,000,00 20210620-80932- Invoice TRUSTEE FEES TRUSTEE FEES 2,000.00 250-0000-7051-0000 0.00 2,000.00 01/20/2022 TRUSTEE FEES 20210620-80937- Invoice 2,000.00 TRUSTEE FEES TRUSTEE FEES 250-0000-7051-0000 2,000.00

01/20/2022 20210620-80939- Invoice 250-0000-7051-0000 01/20/2022 20210807-10134 Invoice 250-0000-7051-0000 01/20/2022 20210807-10135 Invoice 250-0000-7051-0000 01/20/2022 20210807-10136 Involce 250-0000-7051-0000 20210807-10137 Invoice 01/20/2022 250-0000-7051-0000 01/20/2022 20210807-10149 Invoice 250-0000-7051-0000 01/20/2022 20210807-10150 Invoice 250-0000-7051-0000 01/20/2022 20210807-10182 Invoice 250-0000-7051-0000 01/20/2022 20210807-66996- Invoice

TRUSTEE FEES 0.00 **TRUSTEE FEES** TRUSTEE FEES 2,000.00 TRUSTEE FEES 0.00 1,500.00 TRUSTEE FEES TRUSTEE FEES TRUSTEE FEES 0.00 TRUSTEE FEES 1,500.00 TRUSTEE FEES TRUSTEE FEES 0.00 TRUSTEE FEES 1,500,00 TRUSTEE FEES TRUSTEE FEES 0.00 TRUSTEE FEES 1,500.00 TRUSTEE FEES TRUSTEE FEES 0.00 TRUSTEE FEES TRUSTEE FEES 2,000.00 TRUSTEE FEES 0.00 TRUSTEE FEES TRUSTEE FEES 1,500.00 TRUSTEE FEES 0.00 TRUSTEE FEES 1,500.00 TRUSTEE FEES TRUSTEE FEES 0.00

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В	ank Code APBNK Si	ummary		
	Payable	Payment		
Payment Type	Count	Count	Discount	Payment
Regular Checks	3	3	0.00	10,170.96
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
Virtual Payments	73	32	0.00	842,675.21
-	76	35	0.00	852,846.17

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Date Range: 01/14/2022 -----

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Item 2.

All Bank Codes Check Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	3	З	0.00	10,170.96
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	. 0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
Virtual Payments	73	32	0.00	842,675.21
	76	35	0.00	852,846.17

Fund Summary

Fund	Name	Period	Amount
999	POOLED CASH	1/2022	852,846.17
			852,846.17

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Staff Report

TO:	City Council
FROM:	Nicole Wheelwright, Deputy City Clerk
DATE	February 1, 2022

SUBJECT: Re-Ratification of Local Emergency and Re-Authorizing the Use of Teleconferencing to Conduct Public Meetings

Background and Analysis:

On January 4, 2022, City Council adopted a resolution finding that certain conditions exist that necessitate the need to implement the Ralph M. Brown Act provisions provided by Government Code Section 54953. The recent amendment to Section 54953 allows the use of teleconferencing to conduct meetings of Beaumont's legislative bodies with exemptions to the process and procedure. These provisions are listed in full detail in the table below.

Assembly Bill 361 (AB361) was signed by Governor Newsom with an effective date of October 1, 2021, which provides exemptions to the procedures of conducting public meetings with the use of teleconferencing. Prior to AB361, the City of Beaumont conducted teleconferenced and hybrid public meetings in accordance with Executive Order N-08-21. That order held an expiration date of September 30, 2021.

AB361 amends Government Code Section 54953 to provide provisions to facilitate teleconferenced meetings during a declared state of emergency. These provisions can only be used in an active gubernatorial state of emergency. The provisions from this amendment are listed in the table below.

Brown Act Requirements	Provisions in AB361 Amendment
If the legislative body of a local agency	Agendas not required to be posted at all
elects to use teleconferencing, it shall	teleconference locations.
post agendas at all teleconference	
locations and conduct teleconference	Meeting must still be conducted in a
meetings in a manner that protects the	manner that protects the statutory and
statutory and constitutional rights of the	constitutional rights of the parties or the

parties or the public appearing before the legislative body of a local agency.	public appearing before the legislative body of a local agency.
If the legislative body of a local agency elects to use teleconferencing, each teleconference location shall be identified in the notice and agenda of the meeting or proceeding, and each teleconference location shall be accessible to the public.	Agendas are not required to identify each teleconference location in the meeting notice/agenda. Local agencies are not required to make each teleconference location accessible to the public.
If the legislative body of a local agency elects to use teleconferencing, during the teleconferenced meeting, at least a quorum of the members of the legislative body shall participate from locations within the boundaries of the territory over which the local agency exercises jurisdiction.	No requirement to have a quorum of board members participate from within the territorial bounds of the local agency's jurisdiction.
If the legislative body of a local agency elects to use teleconferencing, the agenda shall provide an opportunity for members of the public to address the legislative body directly at each teleconference location.	In each instance in which notice of the time of the teleconferenced meeting is given or the agenda for the meeting is posted, the legislative body shall also give notice of the manner by which members of the public may access the meeting and offer public comment. The agenda shall identify and include an opportunity for all persons to attend via a call-in option or an internet-based service option. The legislative body shall allow members of the public to access the meeting, and the agenda shall include an opportunity for members of the public to address the legislative body directly.
	In the event of a disruption which prevents the local agency from broadcasting the meeting to members of the public using the call-in option or

	internet-based service option, or in the
	event of a disruption within the local
	agency's control which prevents
	members of the public from offering
	public comments using the call-in option
	or internet-based service option, the
	legislative body shall take no further
	action on items appearing on the meeting
	agenda until public access to the meeting
	via the call-in option or internet-based
	service option is restored.
	Written/remote public comment must be
	accepted until the point at which the
	public comment period is formally closed;
	registration/sign-up to provide/be
	recognized to provide public comment
	can only be closed when the public
	comment period is formally closed.
A member of the public shall not be	An individual desiring to provide public
required, as a condition to attendance at	comment through the use of an internet
a meeting of a legislative body of a local	website, or other online platform, not
agency, to register his or her name, to	under the control of the local legislative
provide other information, to complete a	body that requires registration to log in to
questionnaire, or otherwise to fulfill any	a teleconference, may be required to
condition precedent to his or her	register as required by the third-party
attendance. If an attendance list, register,	internet website or online platform to
questionnaire, or other similar document	participate.
is posted at or near the entrance to the	
room where the meeting is to be held or	
is circulated to the persons present during	
the meeting, it shall state clearly that the	
signing, registering, or completion of the	
document is voluntary, and that all	
persons may attend the meeting	
regardless of whether a person signs,	
registers, or completes the document.	

In order for a local agency to use the provisions provided by AB361, the agency must determine by majority vote that meeting in-person would present imminent risks to

health or safety of attendees and adopt a resolution stating such with a maximum period of thirty days. Thereafter, on a thirty-day basis, the City Council could then consider the continuance of teleconferenced public meetings by way of resolution after a reevaluation of the state of emergency circumstances. In order to continue to facilitate meetings of the City's legislative bodies, City Council would affirm the following findings:

(A) The legislative body has reconsidered the circumstances of the state of emergency.

(B) Any of the following circumstances exist:

(i) The state of emergency continues to directly impact the ability of the members to meet safely in person.

(ii) State or local officials continue to impose or recommend measures to promote social distancing.

Fiscal Impact:

City staff estimates the cost to prepare this staff report to be \$1,040.

Recommended Action:

Waive the full reading and adopt by title only, "A Resolution of the City Council of the City of Beaumont Proclaiming a Local Emergency Persists, Re-Ratifying the Proclamation of a State of Emergency by Executive Order N-09-21, and Re-Authorizing Remote Teleconference Meetings of the Legislative Bodies of the City of Beaumont for the Period of February 1, 2022, through March 1, 2022, Pursuant to Provisions of the Ralph M. Brown Act."

Attachments:

A. Resolution

RESOLUTION 2021-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BEAUMONT, CALIFORNIA, PROCLAIMING A LOCAL EMERGENCY PERSISTS, RE-RATIFYING THE PROCLAMATION OF A STATE OF EMERGENCY BY EXECUTIVE ORDER N-09-21, AND RE-AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF THE LEGISLATIVE BODIES OF THE CITY OF BEAUMONT FOR THE PERIOD FEBRUARY 1, 2022 – MARCH 1, 2022, PURSUANT TO PROVISIONS OF THE RALPH M. BROWN ACT

WHEREAS, the City of Beaumont (the "City") is committed to preserving and nurturing public access and participation in meetings of the City Council; and

WHEREAS, all meetings of the City's legislative bodies are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code §§ 54950 - 54963) (the "Brown Act"), so that any member of the public may attend, participate, and watch the City's legislative bodies conduct their business; and

WHEREAS, the Brown Act, Government Code section 54953(e), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, a required condition is that a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, a proclamation is made when there is an actual incident, threat of disaster, or extreme peril to the safety of persons and property within the jurisdictions that are within the City's boundaries, caused by natural, technological, or human-caused disasters; and

WHEREAS, it is further required that state or local officials have imposed or recommended measures to promote social distancing, or, the legislative body meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, the City Council previously adopted Resolution 2021-53 on October 5, 2021, finding that the requisite conditions exist for the legislative bodies of the City to conduct remote teleconference meetings without compliance with Government Code section 54953(b)(3); and

WHEREAS, as a condition of extending the use of the provisions found in Government Code section 54953(e), the City Council must reconsider the circumstances of the state of emergency that exists in the City, and the City Council has done so; and

WHEREAS, emergency conditions persist in the City, specifically, on March 4, 2020, the Governor of the State of California proclaimed a State of Emergency to exist in California as a

result of the threat of COVID-19; despite sustained efforts the virus continues to spread and is impacting nearly all sectors of California; and

WHEREAS, on June 9, 2021, the California Department of Public Health issued updated public health directives related to physical distancing and face coverings effective June 15, 2021, based on guidelines issued by the Centers for Disease Control and Prevention; and

WHEREAS, on or about July 28, 2021, Riverside County Public Health stated that "in light of the recent increase in local COVID-19 cases, Riverside County Public Health recommends residents follow the new state and federal guidance for face coverings. The current state and federal masking guidance recommend that vaccinated individuals wear face masks in public indoor settings. The state still requires unvaccinated individuals to wear masks indoors;" this remains the guidance of Riverside County Public Health; and

WHEREAS, the City Council does hereby find that the ongoing risk posed by the highly transmissible COVID-19 virus will continue to cause conditions of peril to the safety of persons within the City which are likely to be beyond the control of services, personnel, equipment, and facilities of the City, and the City Council desires to proclaim a local emergency and ratify the proclamation of state of emergency by the Governor of the State of California; and

WHEREAS, as a consequence of the local emergency persisting, the City Council does hereby find that the legislative bodies of the City shall continue to conduct their meetings without compliance with Government Code section 54953(b)(3), as authorized by Government Code section 54953(e), and that such legislative bodies shall continue to comply with the requirements to provide the public with access to the meetings as prescribed in Government Code section 54953(e)(2); and

WHEREAS, all meeting agendas stating meeting dates, times and the manner in which the public may attend and offer public comment by call-in option or internet-based service option shall be posted, at a minimum, on the City's website and at the City's main office.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BEAUMONT, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals.

The recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 2. Affirmation that Local Emergency Persists.

The City Council hereby considers the conditions of the state of emergency in the City and proclaims that a local emergency persists throughout the City, and the ongoing risk posed by the highly transmissible COVID-19 virus has caused, and will continue to cause, conditions of peril to the safety of persons within the City; furthermore, the guidance of Riverside County Public Health recommends physical distancing and face coverings.

Section 3. Re-ratification of Governor's Proclamation of a State of Emergency.

The City Council hereby ratifies the Governor of the State of California's Proclamation of State of Emergency, effective as of its issuance date of March 4, 2020.

Section 4. Remote Teleconference Meetings.

The Mayor, the City Manager, and legislative bodies of the City are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including conducting open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act.

Section 5. Effective Date.

This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) March 1, 2022, or such time the City Council adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the legislative bodies of the City may continue to teleconference without compliance with Government Code section 54953(b)(3).

Section 6. Certification.

The Clerk of the City Council shall certify as to the adoption of this Resolution and shall cause the same to be processed in the manner required by law.

PASSED, ADOPTED, AND APPROVED, this 1st day of February 2022, by the following vote:

AYES: NOES: ABSENT: ABSTAIN:

Lloyd White, Mayor

ATTEST:

Nicole Wheelwright, City Clerk

APPROVED AS TO FORM:

John O. Pinkney, City Attorney



Staff Report

TO: Mayor and City Council Members

FROM: Kristine Day, Assistant City Manager

DATE February 1, 2022

SUBJECT: Resolution Approving the City of Beaumont Wastewater Master Plan

Background and Analysis:

The Wastewater Master Plan (WWMP) is a technical planning and budgetary document that provides a capacity adequacy assessment of the City's sewer collection system (major pipelines and 10 lift stations) to meet the level of service expected by existing customers and to service future growth. The WWMP identifies:

- "What" infrastructure is needed to mitigate existing deficiencies and to service future growth,
- "When" this infrastructure is needed,
- "How Much" it will cost to construct this infrastructure, and
- "Who" pays for this infrastructure.

The WWMP capacity assessment included a sewer flow monitoring program and the development of a GIS-based calibrated hydraulic model. The capacity adequacy evaluation, which included the major sewer pipelines and the 10 lift stations, recommended a list of improvements summarized in the Capital Improvement Program (CIP) with an opinion of probable construction costs to mitigate existing deficiencies and to expand the existing system to service growth.

On July 22, 2021, Akel Engineering presented the Draft Master Plan document in a City Council workshop. (Attachment A – Presentation)

Overall performance of the existing system serving existing customers:

- The study shows the existing sewer system has good system performance,
- Great majority of pipelines meet system performance criteria on capacity, and

• 7 out of the 10 lift stations require capacity upgrades to include redundancy.

Overall performance of the existing system to extend service to future growth:

- Average sewer flows will increase by 300% through the planned buildout, and
- The collection system has adequate capacity to serve future growth with required new improvements.

Upon City Council adoption of the Wastewater Master Plan, City staff will amend the Capital Improvement Plan to reflect the WWMP's projects.

Fiscal Impact:

The cost to prepare this staff report is \$500.

Recommended Action:

Waive the full reading and adopt by title only, "A Resolution of the City Council of the City of Beaumont Adoption of the Wastewater Master Plan."

Attachments:

- A. Presentation from July 22, 2021
- B. Resolution
- C. WWMP Draft Report

City of Beaumont 2021 Wastewater Master Plan

Workshop – Draft Master Plan

June 22, 2021



Historia San Timates Conny

MAY 2021

AKEL

(AUMON)

City of Beaumont

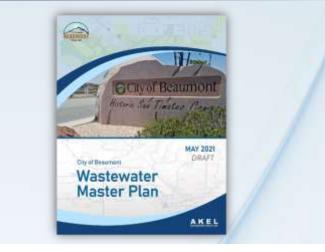
Wastewater Master Plan



Item 4.

Objectives of the Wastewater Master Plan

The Wastewater Master Plan (WWMP) provides a capacity adequacy assessment of the City's sewer collection system to meet the level of service expected by existing customers, and to service future growth.

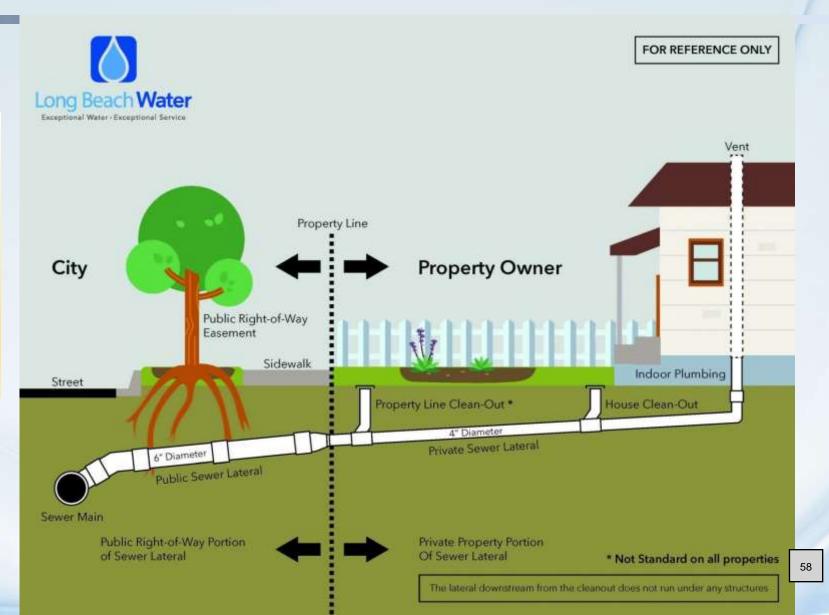


- What Infrastructure Needs to be Constructed?
- When we do we need it?
- How much will it cost?
- Who pays for it?

The WWMP is a *defensible* planning and budgetary documents

Wastewater Flows are Collected from our Homes

Wastewater Flows are Collected from our homes to the Sewer pipelines in the street



Wastewater flows continue to WWTP via Gravity Sewers, Lift Stations, and Force Mains

Force Main Sewer

Flow has to be "forced" through the main because gravity alone is not enough to move it.

> PUMP STATION

Gravity Sewer

Gravity pulls flow towards the pump station.

Flow uses gravity to get to pump stations and treatment plants.

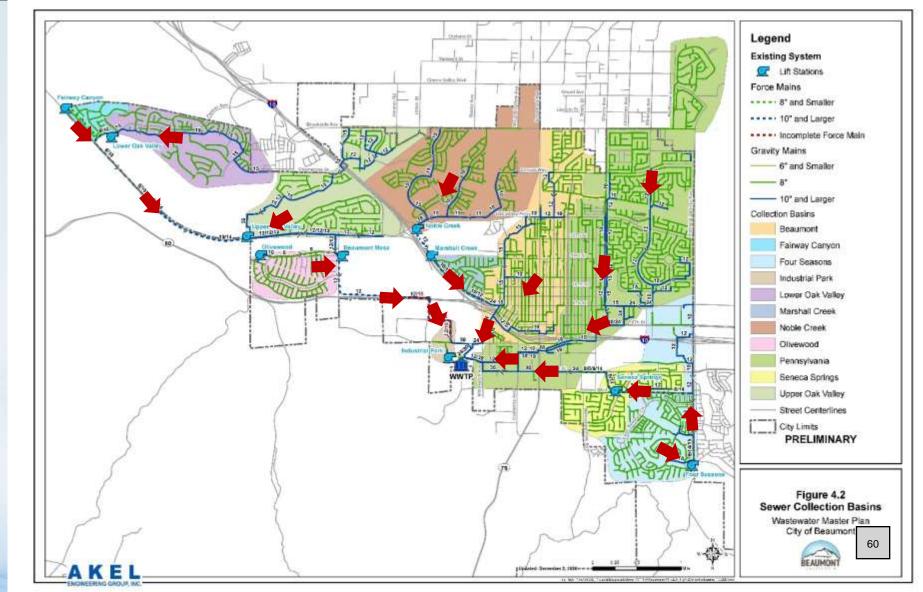
Item 4.

----Pressurized flow is pushed uphill towards pumps and treatment plants.

41 = =

Beaumont Wastewater is Collected from Tributary Basins and Conveyed to the WWTP

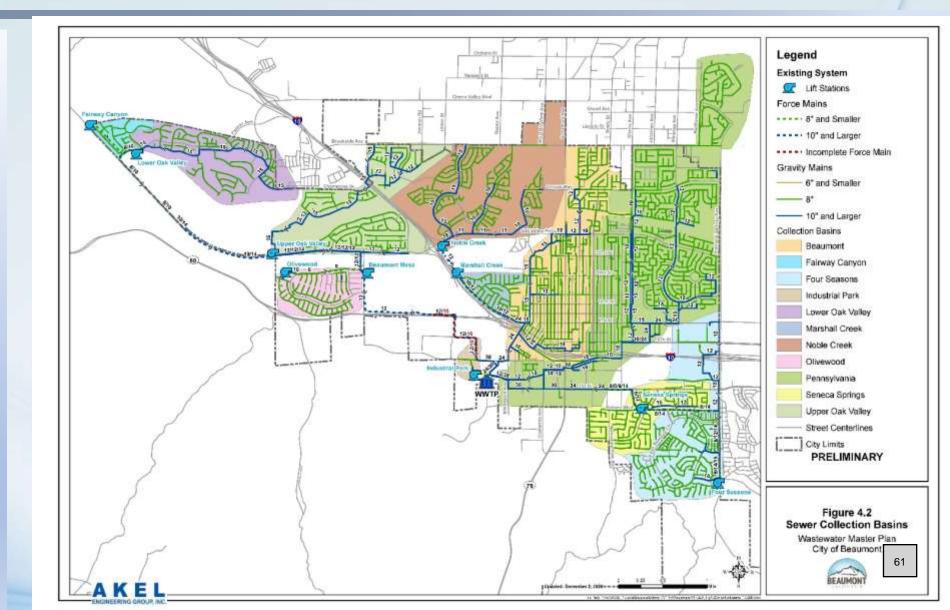
- Green Lines are smaller Gravity Sewers.
- Blue Lines are Large Conveyance Sewers (Backbone).
- Dashed lines are force mains
- RED arrows indicate the direction of wastewater flows



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Existing Wastewater Collection System

- 177 miles of Gravity Sewers
- 20 miles of Force Main
- 10 Lift Stations
- 1 Wastewater
 Treatment
 Plant



Item 4.



AGENDA – Follows WWMP Report Chapters



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Chapter	Description
1	Introduction
2	Planning Area Characteristics
3	System Performance and Design Criteria
4	Existing Sewer Collection Facilities
5	Wastewater Flows
6	Hydraulic Model Development
7	Hydraulic Evaluation and Proposed Improvements
8	Capital Improvement Program (costs)

Chapter 1 – Introduction



Purpose of Chapter

The purpose of this chapter is to introduce the master plan objectives.

Key Chapter Elements

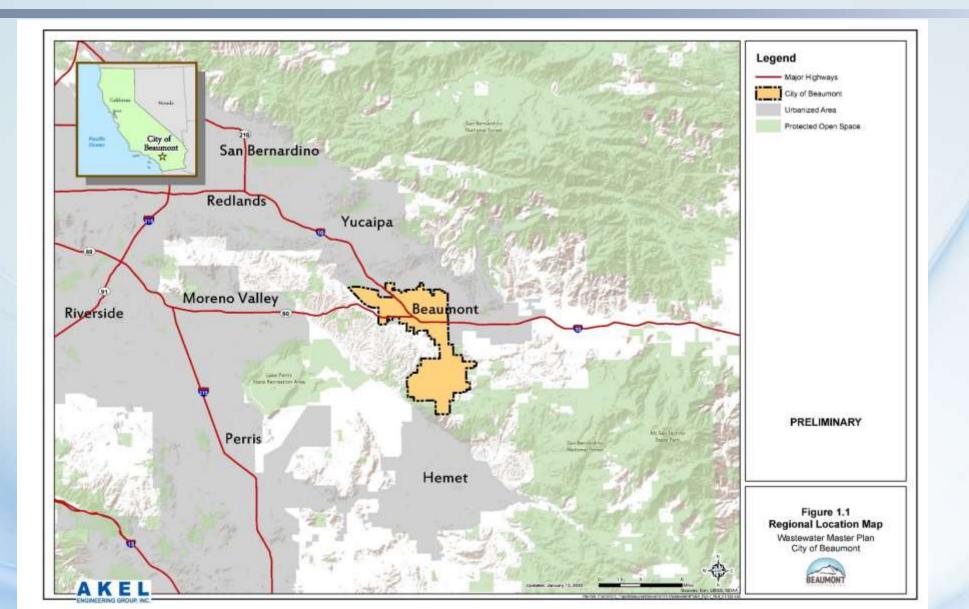
- Regional Location Map
- WWMP Objectives
- Definitions
- Abbreviations
- Report Organization

Regional Location Map

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Objectives of the WWMP

Objective	Description
Characterize Planning Area (Existing Customers, Sewer Flows, Land Use for Future Developments)	How much sewer flows from existing customers? What lands are expected to develop within the planning horizon?
Develop and Calibrate GIS-based Hydraulic Model	The Model is an accurate tool for evaluating the capacity adequacy of pipelines and lift stations. How much flows are generated by Basin?
Evaluate existing pipelines and lift stations system capacities	Do we meet an adequate Level of Service?
Recommend improvements to mitigate existing pipe deficiencies	What improvements are needed to meet an adequate Level of Service?
Perform Lift Station Field Review	We rely on lift stations. What is the overall lift stations structural condition?
Required improvements to service growth	What improvements are required from future developments
Develop Capital Improvement Program (CIP)	How much do the improvements Cost (Existing Users and Future Developments)

Item 4.



Chapter 2 – Planning Area Characteristics

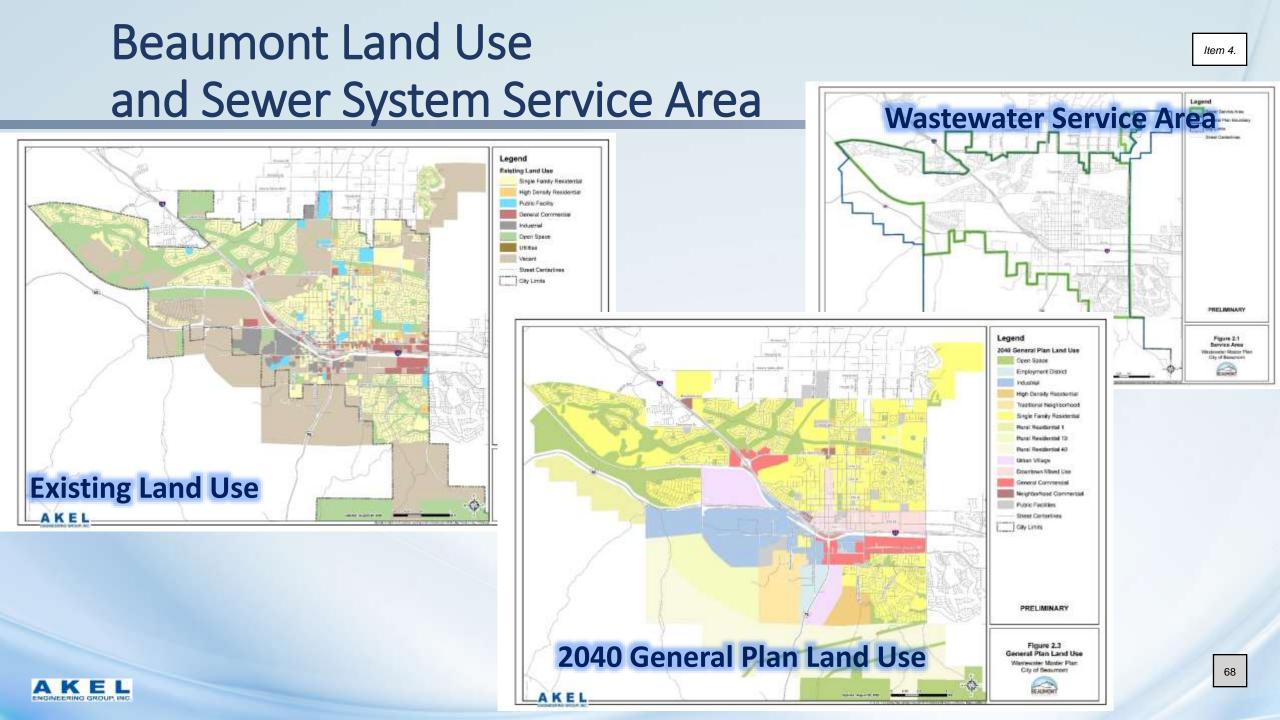
Purpose of Chapter

The purpose of this chapter is to summarize the City's service area, including existing and future land use and population.

Key Chapter Elements

- Service Area
- Existing Land Use
- General Plan Land Use
- Land Use Inventory
- Specific Plans
- Population



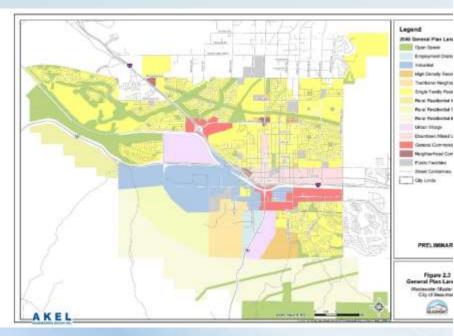


PRELIMINARY

Land Use Inventory

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		E	Existing Development		Future Development			
General Plan Land Use Classification ¹	Existing Land Use Classification ²	Existing Development	Existing Lands - Redeveloping	Subtotal Existing Development - Unchanged	New Lands - Redevelopment	New development	Subtotal Futur e Development	Item 4. Development
1	2	(acre)	(acre)	(acre)	(acre)	(acre) 7	(acre)	(acre) 8
Residential								
Single Family Residential	Single Family Residential	2,568	-178	2,389	118	588	706	3,096
	Mobile Homes and Trailer Parks							
	Mixed Residential							
High Density Residential	Multi-Family Residential	134	-51	83	6	276	282	364
Rural Residential	Rural Residential	0	0	0	2,446	312	2,758	2,758
Traditional Neighborhood	-	0	0	0	76	499	574	574
	Subtotal - Residential	2,701	-229	2,472	2,645	1,676	4,321	6,793
Non-Residential								
General Commercial	Commercial and Services	389	-147	242	28	324	352	595
Naiabh ach a ad Cammanial	General Office	0	0	0	34	11	46	46
Neighborhood Commercial	-	280	-69	211	52		367	577
Industrial Public Facility	Industrial Facilities	280	-09	211	52 44	315 64	107	388
Public Pacificy	Education	255	-15	200	44	04	107	300
Downtown Mixed Use	-	0	0	0	321	64	386	386
Urban Village	-	0	0	0	107	536	643	643
Employment District	-	0	0	0	0	179	179	179
Specific Plans and Other Developments	-	o	0	o	0	4,200	4,200	4,200
bereiopinents	Subtotal - Non-Residential	962	-229	733	586	5,693	6,280	7,013
Non-Flow Generating						,		
Open Space	Open Space and Recreation	8,533	-221	8,312	0	28	28	8,341
	Agriculture	0	0	0	0	0	0	0
Vacant	Vacant	2,934	0	2,934	0	0	0	2,934
Utilities	Utilities	4	0	4	0	0	0	4
ROW	ROW	155	0	155	0	0	0	155
	Subtotal - Non-Flow	11,626	-221	11,405	0	28	28	11,433
	Total Developed Area	15,289	-679	14,610	3,231	7,397	10,628	69 2020

Notes:

1. Source: City of Beaumont Public Draft General Plan (2020)

2. Source: Southern California Association of Governments (SCAG) 2016 Existing Land Use file extracted from City of Beaumont Planning Viewer online web application.

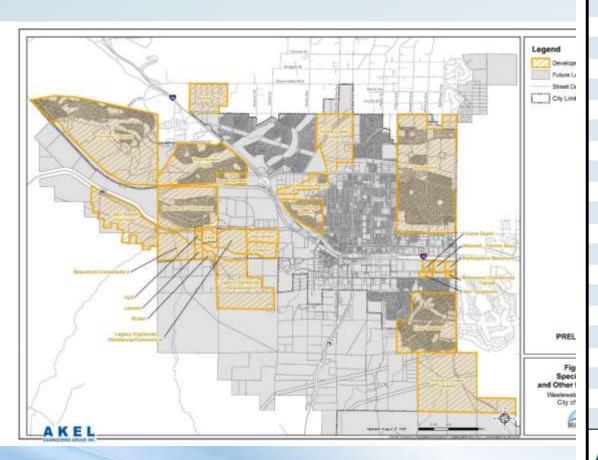
PRELIMINARY

Specific Plan Land

Use Inventory

AKEL

NECEMBER PRINCE CERTOIN



		Total Deve	lopment Area	, by Land Use	e Type¹	
Known Developments	Single Family Multi-Family Residential Residential		Industrial	Public Facili	Item 4.	
	(acres)	(acres)	(acres)	(acres)	(acres)	(acre
Amazon	-	-	-	65.7	-	65.
ASM	-	-	-	49.3	-	49.
Beaumont Commercial Center	-	-	17.4	-	-	17.
Beaumont Crossroads II	-	-	-	165.5	-	165
Curtis Development	66.7	-	-	-	-	66
Fairway Canyon	660.9	-	12.0	-	30.0	702
Four Seasons	365.3	3.3	17.0	-	-	385
Hall	-	-	-	11.2	-	11
Heartland/Olivewood	207.6	-	11.5	50.3	9.2	278
Home Depot	-	-	21.8	-	-	21
Jack Rabbit Trail	-	-	30.0	225.0	-	255
Kirkwood Ranch	123.0	5.0	-	-	-	128
Lassen	-	-	-	17.3	-	17
Legacy Highlands Residential	541.4	71.3	-	-	20.0	632
Legacy Highlands Warehouse	-	-	14.0	92.0	-	10
Marketplace Beaumont	-	-	17.4	-	-	17
Noble Creek Vistas	181.2		-		32.6	213
Portrero Creek Estates ²	733.0		-		-	733
Ricker	-		-	18.0	-	18
San Gorgaonio	-	-	23.0	-	-	23
Sundance	874.4	39.0	14.0	-	39.0	966
Sunny Cal	112.1	-		-	-	112
Three Rings Ranch	143.2	10.0		-	-	153
Tournament Hills	305.4	-	34.4	-	10.0	349
Walmart - Farmer Boys	-		22.7			22
Wolverine	-	-	-	60.0	-	60
Total	4,314	129	235	754	141	5,5
						70

1. Unless noted otherwise, development information shown based on planning documents provided by City staff on November 25, 2019 and December 5, 2019.

2. Source: City of Beaumont General Plan Public Draft, August 2020

Service Area Population

- Historical and projected populations documented for informational purposes
- Population of 67,144 by 2038 (Based on City Staff projections)

Year	Population	Percent Growth
	City-Wide	
Historical		
2007	28,250	10.9%
2008	31,317	10.9%
2009	32,403	5.3%
2010	36,877	5.3%
2011	38,201	5.3%
2012	39,317	5.3%
2013	40,472	5,3%
2014	41,659	3.6%
2015	43,370	3.6%
2016	44,821	3.6%
2017	46,179	3.6%
2018	48,237	3.6%
Projected		
2019	49,915	2.3%
2020	51,263	2.3%
2021	52,291	2.3%
2022	53,061	2.3%
2023	53,950	2.3%
2024	54,463	1.8%
2025	55,234	1.8%
2026	56,261	1.8%
2027	57,416	1.8%
2028	58,947	1.8%
2029	59,974	1.3%
2030	60,745	1.3%
2031	61,258	1.3%
2032	61,772	1.3%
2033	62,917	1.3%
2034	63,816	1.3%
2035	64,715	1.3%
2036	65,485	1.3%
2037	66,127	1.3%
2038	67,144	1.3%

Votes:

Historical and Projected Population provided by City staff on December 13, 2019.

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Chapter 3 – System Performance and Design Criteria



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Purpose of Chapter

The purpose of this chapter is to discuss City's wastewater system performance and design criteria.

Key Chapter Elements

- System Performance and Design Criteria
- Wastewater Unit Factor Analysis
- Wastewater Diurnal Pattern

Criteria is consistent with Eastern Municipal Water District

PRELIMINARY

System Performance and Criteria

Criteria consistent with Eastern Municipal Water District



	PREL	IIVIIINANT										
	Weather Flow Criteria MWD Wastewater Criteria)	ltem 4.										
Sewer Trunk	d/D											
Diameter < 15 inches	0.50											
Diameter ≥ 15 inches	0.70											
Wet Weather Flow Criteria (EMWD Wastewater Criteria)												
Sewer Trunk	d/D											
Existing System	1.00											
Future System	0.75											
Pipe Slope Criteria (EMWD Wastewater Criteria)												
Pipe Size	Minimum Slope (ft/ft)											
8"	0.004											
10"	0.0032											
12"	0.0024											
15"	0.0016											
18"	0.0014											
21"	0.0012											
24" and Up	0.001											
	pe Velocity Criteria MWD Wastewater Criteria)											
Ріре Туре	Minimum / Maximum Velocity (fps)											
Gravity Sewer	Minimum 2 / Maximum 10											
Force Main	Desired 2 to 6.5 / Maximum 10	<u>3/2/2</u> 73										
1. Source: Eastern Municipal Water	District Wastewater Collection System Master Plan erformance criteria shall be in accordance with EMWD WCS1	MP.										

Wastewater Unit Factor Analysis

Land Use ClassificationExisting Development2017 Water Consumption 1 Annual ConsumptionReturn to Sever RatioDry Weather Sever Flows Madjusted Sever Unit FactorSever Flows Munajusted Munajusted Recommended Unit Factor (gpd)Sever Flows at 100% OccupancyAnnual Projected Flows at 100% OccupancyAnnual (gpd)Unadjusted Water Unit Factors (gpd/acre)Dry Weather Sever Flows Recommended Unit Factor (gpd)Sever Flows at 100% OccupancyProjected Flows at 100% OccupancyAnnual (gpd)Munajusted (gpd)Return to Sever Unit Factor (gpd)Sever Flows Recommended Unit FactorSever Flows Recommended Unit	2017 Average Dry Weather Sewer Flow Unit Factors										
Annual Consumption Unadjusted Water Unit Factors Neturn to Unadjusted (gpd) Unadjusted Unadjusted Sewer Ratio Balance using Recommended Unit Factor Vacancy Recommended Unit Factor Projected Flows at 100% Occupancy Annual (gpd) Meturn to Sewer Ratio Unadjusted Sewer Unit Factor Balance using Recommended Unit Factor Vacancy Rate ²⁻³ Projected Flows at 100% Occupancy Annual (gpd) Meturn to Sewer Ratio Sewer Unit Factor Image: Sewer Unit Factor Image: Sewer Unit Factor Image: Sewer Unit Factor Balance using Recommended Unit Factor Vacancy Rate ²⁻³ Projected Flows at 100% Occupancy Annual (gpd) Image: Sewer Unit Factor Vacancy (gpd) Projected Flows at 100% Occupancy Image: Sewer Unit Factor Image: Sewer Unit Factor	Sewer Unit Factor										
Residential 2,568 5,432,317 2,116 0.50 1,064 2,732,455 10.0% 1,171 3,005,701 Multi-Family Residential 134 315,111 2,358 0.70 1,660 221,838 10.0% 1,826 244,022	ADWF Factor	ance Using WF Factor									
Single Family Residential ⁴ 2,568 5,432,317 2,116 0.50 1,064 2,732,455 10.0% 1,171 3,005,701 Multi-Family Residential 134 315,111 2,358 0.70 1,660 221,838 10.0% 1,826 244,022	(gpd/acre)	(gpd)									
Multi-Family Residential 134 315,111 2,358 0.70 1,660 221,838 10.0% 1,826 244,022											
	1,200 3,0	,081,236									
Subtotal Residential 2.701 5.747.428 2.954.294 3.249.723	1,850 2	247,193									
	3,	,328,429									
Non-Residential											
Commercial and Services ³ 389 413,338 1,062 0.85 903 351,337 2.0% 921 358,364	925 3	360,038									
Public Facilities ⁶ 293 286,703 979 0.85 832 243,698 2.0% 849 248,572	850 2	248,974									
Industrial ⁷ 223 130,310 585 0.85 497 110,764 0.2% 498 110,985	500 1	111,360									
Subtotal Non-Residential 905 830,351 705,798 717,921	7	720,372									
Totals 2017 Average Dry Weather Flows											
3,606 6,577,779 Estimated Sewer Flows 3,660,092 3,967,644	4,0	,048,800									
AKEL ENGINEERING ORGUE NG 3,662,673		8/24/2020									

Notes:

1. Water consumption extracted from water billing data received from City staff November 21, 2019.

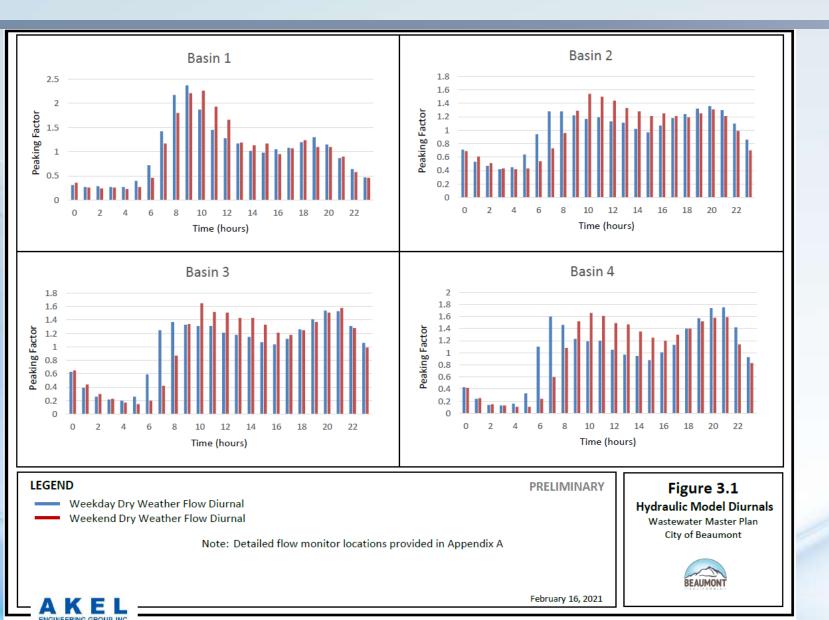
2. Residential vacancy rate extracted from California Department of Finance E-5 Population estimates.

3. Office Commercial and Industrial vacancy rates extracted from "Beaumont Economic Development Strategic Plan". For planning purposes, Business Commercial vacancy rate assumed equal to Office Commercial.

4. "Single Family Residential" contains development and consumption for "Mobile Homes and Trailer Parks".

Factors applied to Land Use to estimate wastewater flows

Characterizing WW Flows



Shows hourly variations in wastewater flow Developed from flow monitoring data.



Purpose of Chapter

Key Chapter Elements

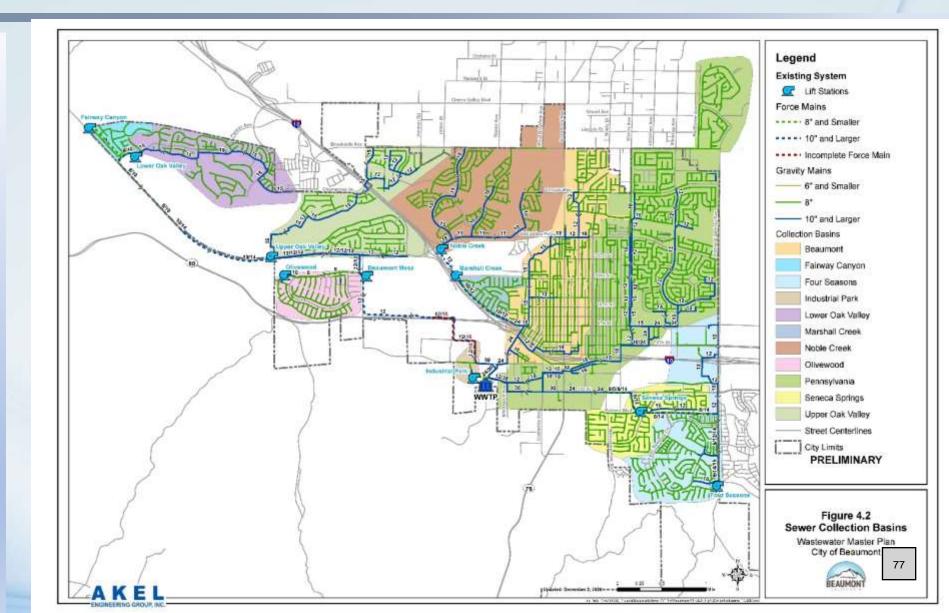
The purpose of this chapter is to discuss City's existing wastewater system.

- Existing Pipelines Inventory
- Lift Station Inventory



Existing Wastewater Collection System

- 177 miles of Gravity Sewers
- 19 miles of Force Main
- 10 Lift Stations
- 1 Wastewater
 Treatment
 Plant

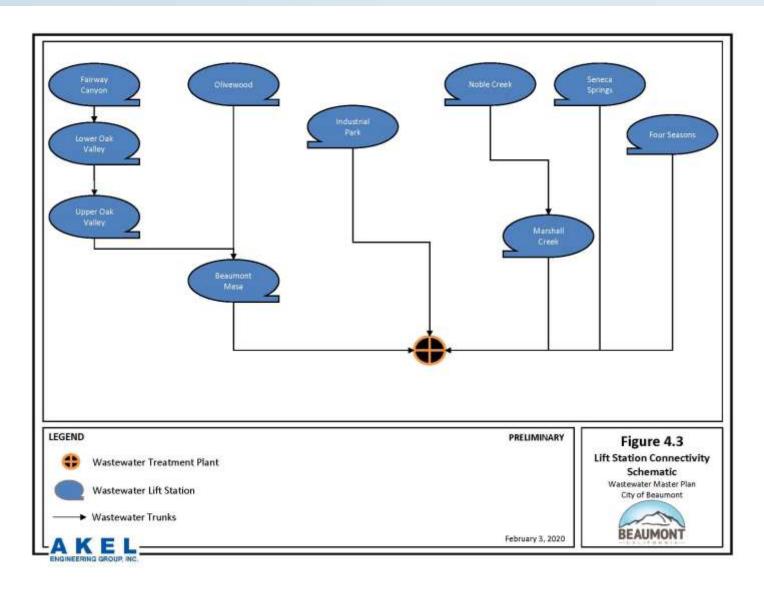


Existing System Pipeline Inventory

Pipeline Diameter	Leng	th	Percent Contributi
(in)	(ft)	(mi)	% Total
Gravity Mains			
4	883	0.2	0. 1%
6	2,612	0.5	0.3%
8	759,884	143.9	73.4%
10	28,526	5.4	2.8%
12	59,788	11.3	5.8%
15	48,929	9.3	4.7%
16	1,898	0.4	0.2%
18	7,782	1.5	0.8%
24	13,012	2.5	1.3%
30	8,890	1.7	0.9%
48	222	0.04	0.02%
Unknown	226	0.04	0.02%
Subtotal - Gravity Mains	932,653	176.6	90.1%
Force Mains			
6	1,060	0.2	0.1%
8	33,208	6.3	3.2%
10	17,254	3.3	1.7%
12	31,787	6.0	3.1%
14	18,776	3.6	1.8%
Subtotal - Force Mains	102,086	19.3	9.9%
Total Sewer Pipe			
Total	1,034,739	196.0	100.0%

Source: Sewer System GIS provided by City staff on November 20, 2019.

Lift Station Connectivity Schematic





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Lift Station Inventory

Lift Station I	nformation		Ρι	ımps ¹		Pump Controls ²						Wet \	Nell Dimer	nsions ²
No.	Location	Quantity	Full Capacity	Firm Capacity	Current Capacity	High Level	Low Level	Lead On	Lag 1 Off	Lag 2 On	Lag 2 Off	Area	Depth	Volume
			(gpm)	(gpm)	(gpm)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft ²)	(ft)	(gal)
Beaumont Mesa	12940 Potrero Blvd.	2 @ 1,797 gpm	3,594	1,797	3,594	21.50	2.00	9.50	7.00	12.00	7.00	697.4	21.0	109,593
Fairway Canyon ³ (Little Lower Oak Valley)	34003 Crenshaw St.	2 @ 400 gpm	800	400	800	8.33	2.92	6.61	3.58	7.83	6.61	50.3	11.50	2,022
Lower Oak Valley	11246 Palmer Ave.	2 @ 650 gpm 1 @ 400 gpm	1,700	1,050	1,700	7.50	1.50	4.00	2.00	7.00	2.00	212.7	16.5	26,252
Marshall Creek	990 Ring Ranch Rd.	2 @ 1,150 gpm	2,300	1,150	2,300	10.75	8.08	9.75	8.25	10.50	8.25	223.9	18.0	30,149
Noble Creek	1899 W Oak Valley Pkwy.	2 @ 1,865 gpm	3,730	1,865	3,730	6.00	1.50	4.25	2.00	5.75	2.00	180.8	14.5	19,606
Seneca Springs	1390 Potrero Blvd.	3 @ 450 gpm	1,350	900	1,125	6.00	1.25	4.50	2.50	5.50	2.50	184.7	31.50	43,519
Upper Oak Valley	35980 Oak Valley Pkwy.	2 @ 1,350 gpm 1 @ 2,300 gpm	5,000	2,700	5,000	7.50	1.00	4.50	2.50	7.00	2.50	345.7	19.5	51,283
Four Seasons	1075 S Highland Springs Ave.	2 @ 1,675 gpm 1 @ 365 gpm	3,715	1,740	1,675	9.50	1.50	4.75	2.25	9.00	4.75	249.6	22.0	41,078
Industrial Park ⁴ (Coopers Creek)	715 W 4th St.	1 @ 112 gpm 1 @ 150 gpm	262	112	262	6.00	1.00	5.75	2.00	5.75	2.00	58.7	16.0	7,022
	North of Artisan Pl.	2 @ 310gpm	620	310	620	6.25	2.00	5.25	3.00	5.75	3.00	50.3	19.5	7,332
-A N E L														4/27/2021

ENGINEERING GROUP, INC.

Notes:

1. Source: Pumps information provided by City staff on December 13, 2019.

2. Unless noted otherwise, pump controls and wet well dimensions provided by City staff on March 04, 2020.

3. Fairway Canyon wet well dimensions provided by City staff on April 28, 2021.

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Chapter 5 – Wastewater Flows



Purpose of Chapter

The purpose of this chapter is to summarize historical wastewater flows at City's WWTP and project flows for future growth.

Key Chapter Elements

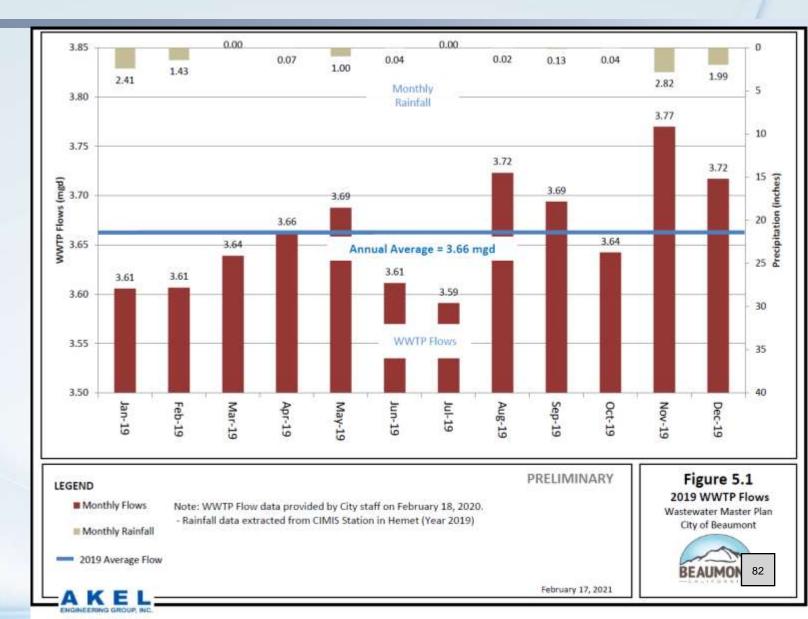
- Historical Flow Summary
- Buildout Wastewater
 Flows



2019 WWTP Flows (January-December)

Highest months are August and November.

November high flows due to Wet weather flows



Historical

Wastewater Flows Data

- 3.66 mgd is the average flow
- 1.33 times higher than average during maximum day dry weather
- 1.88 times higher than average during maximum day wet weather

Year	Average Annual Percentage Seasonal Average		Maximu	ım Month	Maximum Day								
Tear	Flow (AAF)	Change	ADWF ¹	AWWF ²	MMDWF	MMWWF	MDDWF	MDWWF					
	(mgd)		(mgd)	(mgd)	(mgd)	(mgd)	(mgd)	Item 4. (d)					
2012	2.68		2.70	2.67	2.74	2.80	3.12	3.18					
2013	2.79	3.9%	2.68	2.90	2.82	3.12	3.40	3.50					
2014	2.98	6.9%	2.97	2.99	3.02	3.19	3.50	3.62					
2015	2.92	-1.8%	2.91	2.94	2.97	3.05	3.86	3.58					
2016	2.83	-3.4%	2.80	2.86	2.91	3.29	3.27	5.26					
2017	3.27	15.8%	-	-	-	-	-	-					
2018	3.39	3.7%	3.40	3.38	3.51	3.51	-	-					
2019	3.66	8.0%	3.66	3.67	3.72	3.77	4.14	5.07					
2020	-	-	-	-	-	4.01	-	4.57					
	Historical Peaking Factors (Applied to ADWF)												
2012	1.00		1.00	0.99	1.02	1.04	1.16	1.18					
2013	1.04		1.00	1.08	1.05	1.17	1.27	1.31					
2014	1.00		1.00	1.01	1.02	1.07	1.18	1.22					
2015	1.00		1.00	1.01	1.02	1.05	1.33	1.23					
2016	1.01		1.00	1.02	1.04	1.18	1.17	1.88					
2017	-		-	-	-	-	-	-					
2018	1.00		1.00	0.99	1.03	1.03	-	-					
2019	1.00		1.00	1.00	1.02	1.03	1.13	1.39					
2020	-		-	-	-	-	-	-					
	1		Recommend	ded Evaluation			1						
LAK	E I			1.08	1.05	1.18	1.33	1.88					
Notes :	OROUP, INC.							2/3/2020					
	rce: 2012-2016 WWT	(P flows extracted	d from the City of F	Jeaumont 2017 Inf	low and Infiltration	n Study.		83					
	rce: 2017-2019 City F												
3. Sour	rce: Hourly influent f	lows at the www	P for the period of	02/20/20 to 04/09)/20 provided by O	ity staff on May 1,	2020.						

Projected Buildout Wastewater Flows

	Existing	Existing Development Future Development within Study Area									
Land Use Type	Existing Lands, No Redevelopment	Sewer Unit Factor	Average Daily Flow	Lands Planned for Redevelopment	New Development	Subtotal Future Development	Sewer Unit Factor	Average Dry Weather Flow	Total Development at Buildout of Study Area	Total Average Flo	
1	(acre) 2	(gpd/acre)	(gpd) 4	(acre) 5	(acre) 6	(acre) 7	(gpd/acre) 8	(gpd) 9	(acre) 10	(gpd) 11	(gpd) 12
General Plan Residential											
Single Family Residential	2,389	1,396	3,335,391	118	588.3	706	1,396	986,125	3,096	4,321,516	4.32
High Density Residential	83	2,609	215,334	6	276.1	282	2,609	735,343	364	950,677	0.95
Rural Residential	0	611	0	2,446	312.3	2,758	611	1,685,107	2,758	1,685,107	1.69
Subtotal - General Plan Residential	2,472		3,550,725	2,570	1,176.7	3,746		3,406,575	6,218	6,957,301	6.96
General Plan Non-Residential											
General Commercial	242	1,175	284,837	28	323.8	352	1,175	413,753	595	698,590	0.70
Neighborhood Commercial	0	1,175	0	34	11.5	46	1,175	53,539	46	53,539	0.05
Industrial	211	1,763	371,281	52	315.2	367	1,763	646,780	577	1,018,062	1.02
Public Facility	280	800	224,260	44	63.6	107	800	85,932	388	310,191	0.31
Subtotal - General Plan Non-Residential	733		880,378	158	714.0	872		1,200,004	1,605	2,080,381	2.08
General Plan Overlays											
Traditional Neighborhood ¹	0	-	0	76	498.8	574	-	692,049	574	692,049	0.69
Downtown Mixed Use ¹	0	-	0	321	64.4	386	-	578,272	386	578,272	0.58
Urban Village ¹	0	-	0	107	536.0	643	-	1,041,439	643	1,041,439	1.04
Employment District ¹	0	-	0	0	179.1	179	-	216,814	179	216,814	0.22
Subtotal - General Plan Overlays	0		0	504	1,278.4	1,782		2,528,575	1,782	2,528,575	2.53
Known Developments											
Specific Plan and Other Developments ²	0	-	0	0	4,199.7	4,200	-	6,214,824	4,200	6,214,824	6.21
Subtotal - Known Developments	0		0	0	4,199.7	4,200		6,214,824	4,200	6,214,824	6.21
Total											
A K E L	3,205		4,431,103	3,231	7,368.8	10,600		13,349,978	13,805	17,781,081	17.78

ENGINEERING GROUP, INC. Notes:

1. Development flows for Overlay Areas documented in Table 2, General Plan Overlay Development and Flows

2. Specific Plan and Other Development flows documented in Table 5, Specific Plan and Other Development, Remaining Development Flows

84

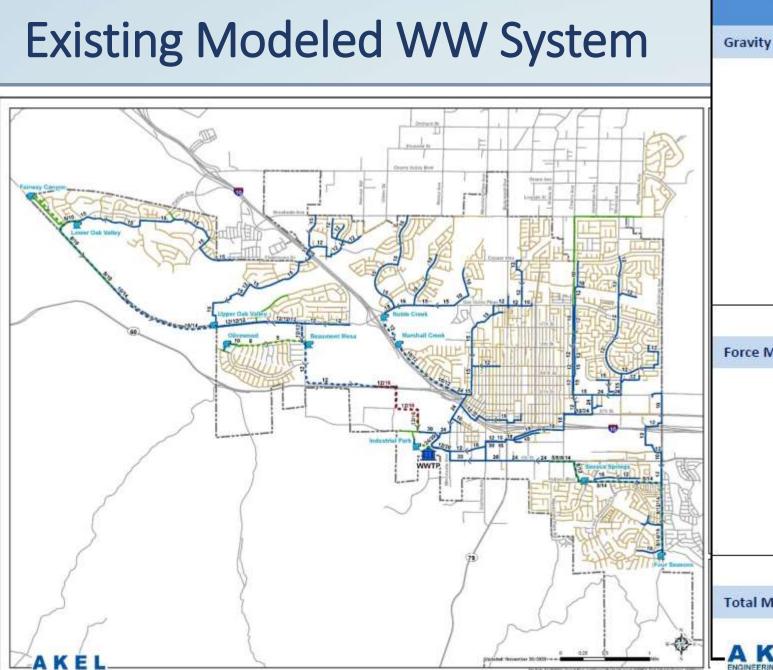
Chapter 6 – Hydraulic Model Development

Purpose of Chapter

The purpose of this chapter is to discuss the hydraulic model development and calibration process of the wastewater collection system.

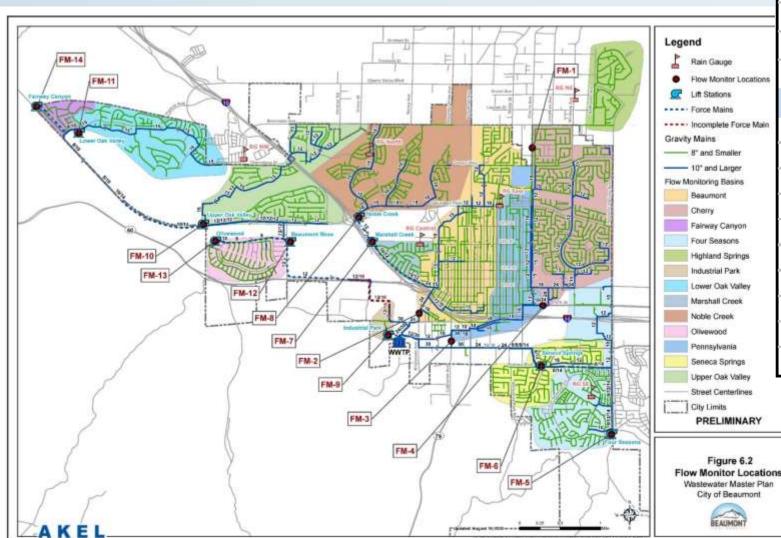
Key Chapter Elements

- Hydraulic Model
 Development
- Flow Monitoring Program
- Hydraulic Model Calibration



Pipeline Diameter	Leng	th	Percent Contributio
(in)	(ft)	(mī)	% Item 4.
Gravity Mains			
8	18,847	3.6	6.4%
10	27,947	5.3	9.5%
12	59,569	11.3	20.3%
15	48,834	9.2	16.6%
16	1,898	0.4	0.6%
18	7,829	1.5	2.7%
24	12,336	2.3	4.2%
30	8,890	1.7	3.0%
Subtotal	186,151	35.3	63.4%
Force Mains			
6	1,060	0.2	0.4%
8	33,212	6.3	11.3%
10	17,260	3.3	5.9%
12	31,796	6.0	10.8%
14	18,941	3.6	6.5%
16	5,058	1.0	1.7%
Subtotal	107,327	20.3	36.6%
Total Modeled Pipe			
Total	293,478	55.6	100.09 86

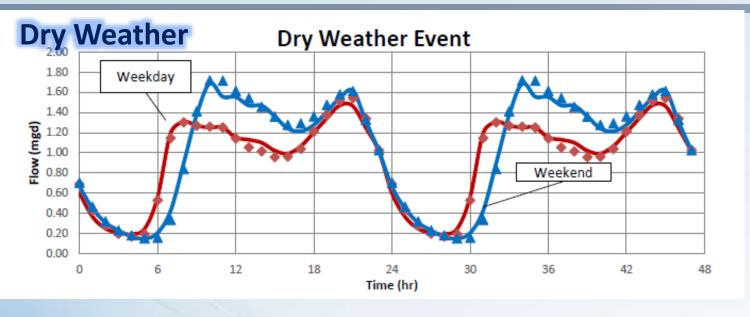
Flow Monitoring Program

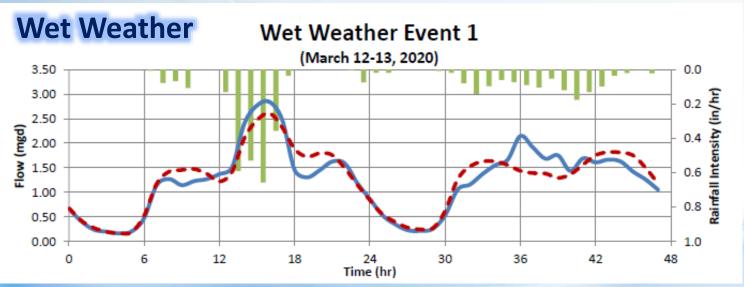


14 Flow Monitoring Site Item 4.

	Site ID	Location Description	Pipe Size (in)	Manhole ID
_	Gravity Main	n Flow Monitors		
	FM-1	Cherry Avenue north of Mary Lane	8" N (In Pipe)	SSMH01048
	FM-2	Minnesota Avenue approx 500' north of 4th Street	24" N (In Pipe)	SSMH01728
2.1558940.04	FM-3	California Avenue approx 400' north of 1st Street	30" N (In Pipe)	SSMH00381
t Gauge v Monitor Locations	FM-4	6th Street approx 400' west of American Avenue	24" E (In Pipe)	SSMH00330
Stations ce Mains	Lift Station F	low Monitors		
mplete Force Main	FM-5	1075 South Highland Springs Road		LS-1 (Four Seasons)
nd Smaller and Larger	FM-6	1390 Potrero Boulevard	-	LS-2 (Seneca Springs)
oring Basins umont	FM-7	990 Ring Ranch Road	-	LS-3 (Marshall Creek)
try.	FM-8	1899 West Oak Valley Parkway	-	LS-4 (Noble Creek)
way Canyon r Seasons	FM-9	715 West 4th Street	-	LS-5 (Industrial Park)
Nand Springs ustrial Park	FM-10	35980 Oak Valley Parkway	-	LS-6 (Upper Oak Valley)
er Oak Valley shall Creek	FM-11	11246 Palmer Avenue	-	LS-7 (Lower Oak Valley)
ée Creek	FM-12	34003 Crenshaw Street	-	LS-8 (Beaumont Mesa)
ewood nsylvania	FM-13	12940 Potrero Boulevard	-	LS-9 (Olivewood) LS-10
eca Springs er Oak Valley	FM-14	Castello Lane approx 450' north of Artisan Place	-	(Fairway Canyon) 2/11/202
et Centerlines Limits RELIMINARY	ENGINEERING GROUP, IT Notes: 1. GIS Manhole	IDs based on GIS shapefiles provided by City staff Nover	nber 18, 2019.	2/11/202
Figure 6.2 Monitor Location	s			

Hydraulic Model Calibration





• Dry and Wet Weather

- Benchmark for future evaluations
- Calibration results were acceptable

Chapter 7 - Hydraulic Evaluation and Proposed Improvements



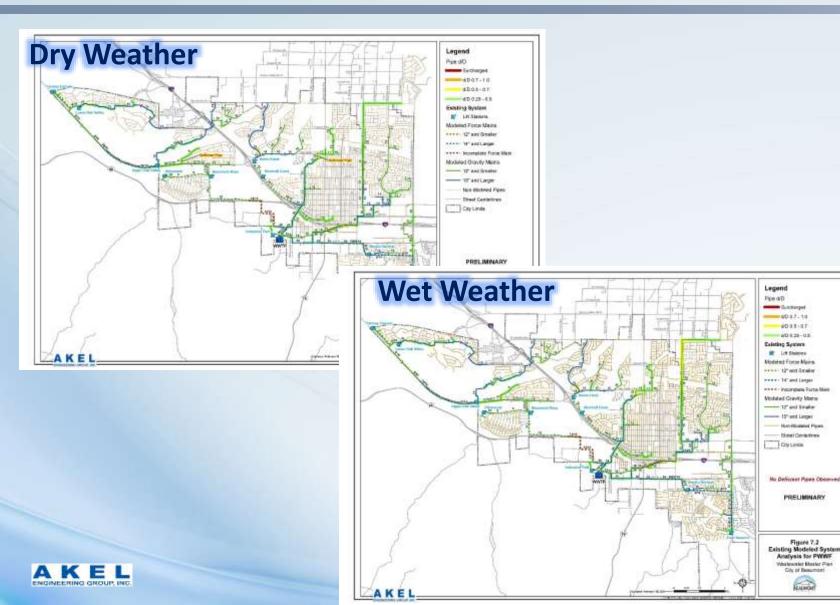
Purpose of Chapter

The purpose of this chapter is to evaluate the existing wastewater system and recommend improvements to mitigate existing deficiencies and serve future growth.

Key Chapter Elements

- Existing System Evaluation
- Recommended
 Improvements
- Future System Evaluation

Existing System Evaluations

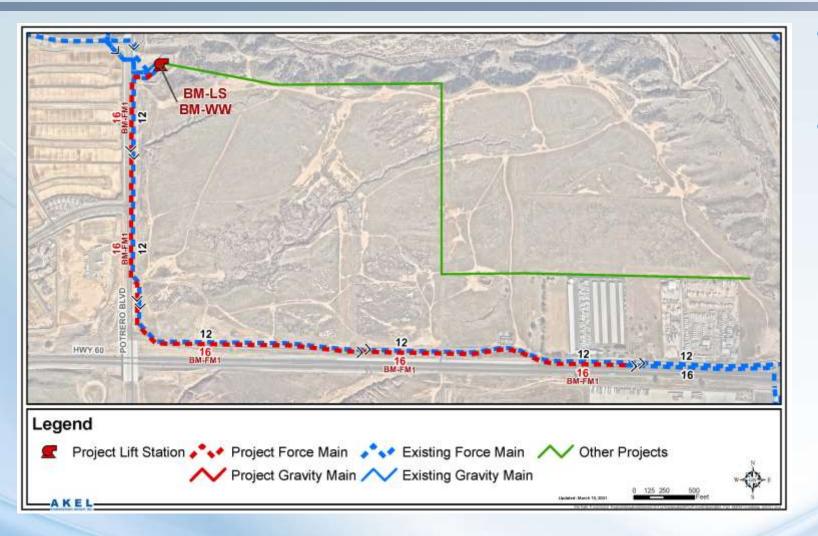


- Evaluated for peak dry and wet conditions
- Considered 10-Year 24-Hour **Design Storm**
- Capacity of Existing **Pipelines is** Good.

PRELIMINARY

nateuxier Musiler Plan **Oils of Beaumon**

Beaumont Mesa LS Improvements



- Critical Regional Lift Station
- Planned improvements to mitigate deficiencies
 - Replace existing pumps (undersized)
 - Complete parallel force main (segment currently offline)
 - Expand wet well (lacks sufficient emergency capacity)

Lift Station Capacity Evaluation

- Capacity of Existing Lift Stations not adequate.
- Future growth requires additional lift station capacity

ENGINEERING GRO	OUP, INC

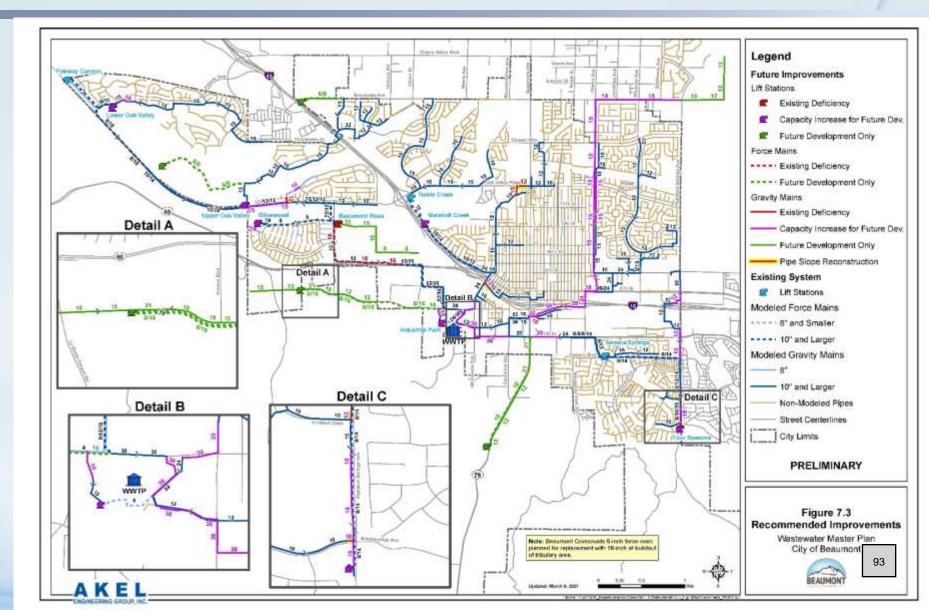
		De las Firm	T + 10	Exis	sting System An	nalysis Future System Anal			llysis	
	Pump Station	Design Firm Capacity	Total Capacity (Includes Standby)	Peak Wet We	eather Flows ¹	Surplus/ Deficiency	Peak Wet W	eather Flows ¹	Surplus/ Deficiency	Recommended Item 4.
		(gpm)	(gpm)	(gpm)	(mgd)	(gpm)	(gpm)	(mgd)	(gpm)	
	Existing System									
	Beaumont Mesa ³	1,797	3,594	2,020	2.91	-223	4,530	6.52	-2,733	Construct two 3,500 gpm and two 1,500 gpm pumps, three duty and one standby, for total capacity of 10,000 gpm.
	Fairway Canyon ²	400	800	77	0.11	323	90	0.13	310	
	Lower Oak Valley	1,050	1,700	965	1.39	85	1,217	1.75	-167	Construct three 625 gpm pumps, two duty and one standby, for total capacity of 1,875 gpm
	Marshall Creek	1,150	2,300	778	1.12	372	1,696	2.44	-546	Construct two 1,700 gpm pumps, one duty and one standby, for total capacity of 3,400 gpm
	Noble Creek	1,865	3,730	465	0.67	1,400	958	1.38	907	
	Seneca Springs	900	1,350	201	0.29	699	378	0.54	522	
	Upper Oak Valley	2,700	5,000	1,914	2.76	786	3,634	5.23	-934	Construct three 1,850 gpm pumps, two duty and one standby, for total capacity of 5,550 gpm
	Four Seasons	1,740	3,715	442	0.64	1,298	2,616	3.77	-876	Construct three 1,350 gpm pumps, two duty and one standby, for total capacity of 4,050 gpm
	Industrial Park	112	262	106	0.15	6	288	0.41	-176	Construct two 300 gpm pumps, one duty and one standby, for total capacity of 600 gpm
	Olivewood	310	620	53	0.08	257	612	0.88	-302	Construct two 625 gpm pumps, one duty and one standby, for total capacity of 1,300 gpm
	Future System		·							
	Beaumont Ave South	-	-	-	-	-	1,788	2.57	-1,788	Construct three 900 gpm pumps, two duty and one standby, for total capacity of 2,700 gpm
	Beaumont Crossroads	-	-	-	-	-	4,659	6.71	-4,659	Construct three 2,350 gpm pumps, two duty and one standby, for total capacity of 7,050 gpm
	Brookside Ave	-	-	-	-	-	278	0.40	-278	Construct two 300 gpm pumps, one duty and one standby, for total capacity of 600 gpm
	Tukwet Canyon	-	-	-	-	-	709	1.02	-709	Construct three 375 gpm pumps, two duty and one standby, for total capacity of 1,125 gpm
ľ	Notes: 1. Maximum aver	age hour flows ex	tracted from sewer sy:	stem hydraulic i	model.	1	L			<u>5/8</u> /2021 92

2. Lift station current capacity is different than Design Capacity as directed by City staff December 15, 2020.

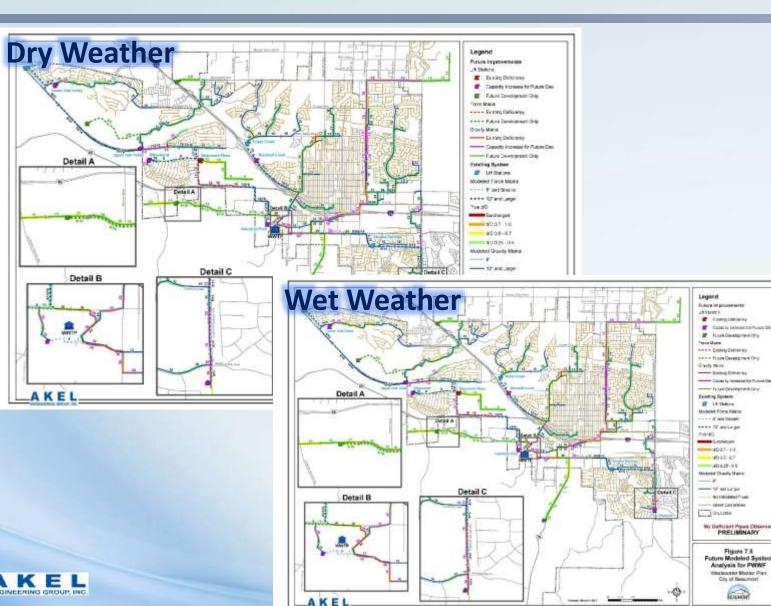
3. Pump information provided by Xylem staff March 02, 2021.

Future Capacity Improvements

- Red represent existing pipe deficiencies.
- Purple represent existing pipes needing upgrade to service growth
- Green lines represent New pipes to service growth



Future System Evaluations



AKEI

 Evaluated for peak dry and wet conditions Validates the recommended improvements

Item 4.

Chapter 8 – Capital Improvement Program



Purpose of Chapter

Key Chapter Elements

The purpose of this chapter is to summarize the City's Buildout and 10-Year Capital Improvement Programs.

- Unit Costs
- Buildout Capital Improvement Program
- 10-Year CIP



Units Costs

Documenting Cost Assumptions

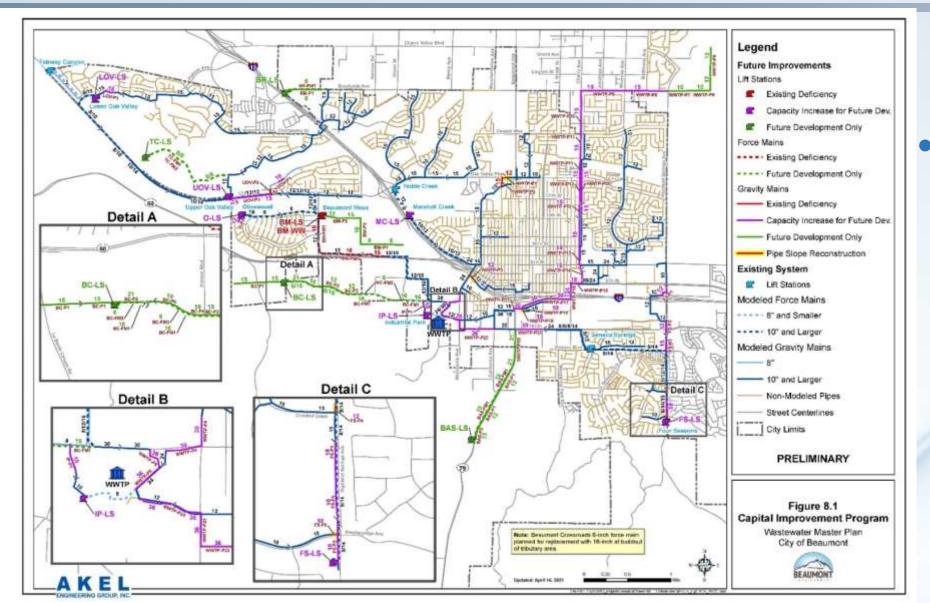
	PRELIMINANT
Pipeline	
Gravity Main ¹	
Pipe Size	Cost ¹
(in)	(\$/lineal foot)
8	\$188
10	\$196
12	\$204
15	\$226
18	\$242
21	\$325
24	\$388
27	\$459
30	\$517
36	\$657
Force Main ²	
6	\$215
8	\$263
10	\$277
16	\$374
Operational and Maintenance ²	
Sewer Pipeline CCTV	\$2.04
Sewer Pipeline Cleaning	\$1.78
Lift Station ³	
Estimated Lift Station Project Cost 308,219*Q + 358,874, where 0	
	3/4/2021
 Notes : 1. Unit costs indexed using the Engineering News Record (EN January 2021. 2. Sewer pipeline operational and maintenance costs based of the second sec	R) Construction Cost Index of 11,628 for

96

3. Lift Station costs based on Akel Engineering Group experience on similar projects and escalated using the Engineering News Record (ENR) Construction Cost Index of 11,628 for January 2021.

on similar projects.

Capital Improvement Program



 Prepare Capital Improvement Projects based on recommended improvements

10-Year CIP

								final musicing					
Carlos Public Type	TRANSPORT OF	in addition of the	Propert Description	wantube	**3444/01		m 2006/0			. HE MANY TAK	++	*******	***
										3.00			
Gravity Main Improvent													
904-92	Existing Capacity Definiency	Apren Lane Ripelline Reptanement	Replace existing 8-both gravity main with new 12-both gravity main in dependen			\$7.40E							
WWITE PE	Existing Capacity Deficiency	Edge Ave Partice Representent	Replace existing G1-lock gravity main with new 15-lock gravity main in Edgar Ave		306.700								
			Subinital - Drawity Main Improvements		256,788	87,800			*	+3	¥.:		
Resument Meda Improv	anisently.				1	· //	()			1			1
	then force blan	Farse Main Design and Pump Design	Design of two force main and pump additions	150,000									
		Ramp Replacement, Salahian Camananian	Construction of regracion are pumps and additional pumps for CC		750,000								
		Free Main Construction	Construction of new 34-instribute main.		A.000.000								
	New Wer Giel	Wei Wei Deug-	Design of New York West	406.001									
		War Wall Construction	Canatraction of New Yeal Well				4,000,000						
			Subicited - Semanoord Mase Improvements	450,000	4,750,000		4,806,000			Ø.:	- E	(0 0)	6
Lift Station Condition A	Listment Amprove	netts	14					1	4	-			1
	5# Station Gardition		Organing lift charlos: ingres-envento to include new electrical, new purgo, repairs to wetwells, repairs to perspectrum at the LL rep.		400.000	-80.008	-10.000	40.000	48,905	480.000	480.000	400,000	480.000
		14	Hotel - 139 Tealue Costillion Janman and Improvements		405,000	820,008	88,30	405,000	416,838	48,09	410,000	.000,000	405,000
Operation and Mainten	anie lorgeowenend	i i											
		CCTv Program	0079 Watewater System every S-years (approx. 59 miles/year) - pointers & musi			110.000					-	195,000	
		On-pring Papeline Residement Program	An estimate properties regularization for program properties (2)			380.000	500.000	500.000	800.000	800.000	100.000	798.000	750.000
			Substitut - Operation and Malerimanian Improvements			840,008	310,000	100,008	800,500	400,000	830,030	900,000	750,000
Wasternater Treatment	Plant												
	Birds .	Waterwater Bate Insti-	Rate Study for \$122 - \$122	100.000							-		
	Generation	(E) Project - Pleve Meters	Installation of these Meters at 15	100.000									
	Generation	10 System Repairs - Prane I	Variate rended ingain system with		100.000			C		D:			
	Design/Construction	Office Experision	WHITP office and staff workspace building			100.000		Gra	νιτγ	י צוף	ellr	ne ir	npr
	Generation	Ut Bub Reparement	BW/P UV suits replacement			10.000		_	-				
	Commentary	NO Medule Replacement	WWITE BO maniful registerment					Bea	um	ont	Me	sa L	S In
			School - Wastewater Treatment Plant	406,000	290.000	556,098							
Total Improvement Cost	ti -		1.1					Lift	Sta	tion	Co	ndit	ion
and a many set of and looks			Recall Tear Total	1.250-000	5.556.760	1.097.400		LIIL	JLd	uun		IUI	10 (1
AKEL-			Campilative Tenal	1,250,000	6,806,790	0,504,300							

1. Untere notes attentions includency signifies activities accorded to City staff an June 81, 2021 1. Existing Manuscrates Souther canadity definitions Capital International Princip

- ovements: \$0.3 million
- mprovements: \$9.6 million

97.408 208.700 898,000 450,000 752,000 1000.000 405,000 4,000,000 1,000,000

3,000,000 LHCOM 300,000 4,830,000 3,100,000

> 108:005 100.000

- **Assessment Improvements: \$3.6 million**
- Operation and Maintenance Improvements: \$5.1 million
- Wastewater Treatment Plant Improvements: \$2.0 million

10-Year CIP Cost: \$20.6 million 98

Buildout CIP

10.94

Ben Cassill

12 44.31

101010-002

Aread

From Parsons Hourse 1,112" with

Potence Blod

												PERIORA	100															
						- Martin			teres.	Letterers			_								PRELIMINARY							
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and Main Proprietants						-	11						-		1				CONTRACT OF									
te my Fundanti Saplantiy Increase	149.00	From Projecto in Farmer Ave	18	2400	10 ADA	- 107	125,621	128,700	103,780.	- 202,690	William (2ky 2,000)	Approx. 100 103.5	1000		-	3,447,314		4,137,300	5.376,500	WID: Annanglism	Al Development Distant	et Cartologie Cart	Terror Terror	free and the second				
Tables burners	ever Gal Valley LPI Daris			-	10 Million	1	1204200	1264308	1.641.200	2 803 818	Witter Die Land	International Contractor	1944	1 1.05	1.10	1346,005	1045,705	2,379,460	3,000,000	With Assession	AL Development Dotart				1			
fagetenet			D-D-Au		Talley Life Durines Test	and any dormal to		1.414.000	LINUME	1,216,118			-	101255.00	1.27	4.552.036	4.553.000	5,460,600	1,899,100	WW Averaging	As Development Occurs.	200,788	Willia Dig Sami	PT 200223				
ant Carners (Mend LIN More	to Tilater Des	1				1					1		These	and Devil 10 Damas To	New York		11.844,358	14,213,503	16,479,380			234,300	Contra State	Approximately 5,010,0244				
to Man Anarowenette																						804.000	-	Agarowiki (JW 221)				
(HAT) New Porce Man In		non Takinat Canpon IN atation in prim. 1.000 n/n Waper Ont Valley	1.5	Ber	F 620	294	1352,004	(462,798	1,085,200	2.578.308	Andreas (My special	A Delegement Octava		Philippin	-							962.500	WHEN CRY SIME	Approximately 0,000 (Date				10
Sec. 10.0000.52		18 colori ner Tulori Garyse 18 danut ne		1201	QL 002825	- 442	Lunce 1		Your or			The second second	-		1	2,126,216	2,138,308	2.942,400	5,311,220	Within City Land	Approximately 1,200 Billio	1218.400	With Instantion	As Development Doorn	-	Capital Degree	. Open the	(includes)
	constant (science 3)	igeou: 3,000° s/s ispace Out Valley		New	# A209	- 294	1,852,858	(062,708	1,095,580	2,576,302	www.ory.cert	An Eleverophant docum	-		Area		LIHAN	2,542,405	3311,200			407.100	108-10149-0000	At the Hopman Octars	-			
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175 COLUMN			Salentai - 1		Chaust 1.01 Stations Test	-		4,265,400	5,545,530	KAMA AN			-			Takini .	54,992	115,000	140.100	-	Approximation (1912) 10	878,108	Write City Lonie Write Atenaciation	Approximately 200 Millio				
err Cell Velley Lift Station 7	Nibidary Avia 1					1							14.4	A) Development Occurs		- Dealers	94.300	112,000	. 199.100	aniatio City Likes	Adversaria (m. 194	943,218	Written City Lower Write Annual Inc.	Approximately 102 (201)	303.604	107,350	WHEN Dry 2000	Approximate
nity films depresented	0.0010.000177														1.1	944,215	044,400	-775.580	1.000.300	TEMAN: Dry Line B	Approximately 30 605A	801,300	Withia Cay Lands With Advancement	Approximately 200 Millio	162,208	210,040	WHITE Chy Seals	Approximately
WAY Hybrid Expects	Berghausy 20 In	err Banata is to (20) and a bana is	1.1	Autor	10 M	300	18,818	75,000	54,850	478,200	Witter Dis Land	Approximately 70 TDIa	iet-	Ra Decemponent Goolett	Area		f3.8,208	847,288	1,133,490			011300	WHEA CRI LINE WHEA CRI LINE	Approximatory 5,178 GB/cr	201.008	101.046	NVM CRy See	Approximation (
WAL Prining Capacity Definitions	America	Press Dahaharat Dres Sak Vallay Phase	E	fighter (11 000	.226	42,343	62,450	74,808	97,852	Witter Dig Laws	PT 2028/24		As Development Closers		11						1.318.908	Weha Cey Lova Web Jatranation Water Cey Lovali	Approximately 2,418 0000	25.000	32,608	wide Caylows	Approximately L
W-PU Public Capacity Increase	Dati Valley Plant 7	um Aprila La de 2,412 m/s Aprila De	÷.	Autor	H 1.995	100	\$75,740	575.608	091.020	890,300	Writer Discourt	Approximately 2,000 bits	-	in the second second						Law and the second		622,208	With Appendiate With Appendiate	Approximately 2,800 Kitche	411.000	SAT AND	State Chy Just	Approximately 2
The local distance in the second s						1 .	1403.305		4.192.190	5.446.000					29	857,239	967,008	1,000,400	1,337,888	Widt Alexandron	As Discongregated Groups	201.000	Wolfs Autowoodlages Without Citizs Lamet	Approcessing 4,010 0012	18,000	35,408	Within City 2 (40)	Appendix and in L
trees topscores lig	igent Carl, Halling Lift Statio		L.		T IF LATE gave			1,403,400	6,042,080	6.544.706	some of the	Approximity 2,000 8000	-		110	201,538	2014,800	342,089	314,000	WW Assesses	At De-draphent docust	902.108	With Advantary Within City Land	Approx. 1,940,020.5	1.811.818	3.941.100	ments for time	Appendiation I
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surby Blass improvements	17.11T													In Development Growt								14.000	Witten City Joseph Witten City Joseph	Approximately 2,400 Thins			1	
Auto Particle (approxit)	. eos /	rente Sectional P1 to registrees. DOV 6/41 Hallman P1	14	fam.	a	- 200	101,000	168,108	131,080	VIDOR8	Within Day Learn	Approximately 760 EDLS		As Development (Scours)	12.5	1,733,828	1,773,100	2.079,600	2,793,800	With Assessment	As Development Goover	116,000	Witten City Lines	Approximately 2,788,9909	1.67	3:600,000	WINCOLDER.	17:2022/24-41
The sector of th		~ 20120				-									Area		4,198,796	6,029,100	6,616,810			1,314,500	WHEN DAY SHAP	Approvingenty 6 300 (2011	-	100,000	White City Jacob	## 300%
p.43 Suptrement Dis	Trans and LP, Matrixe		-	Tap Sci	2.0 542.00m	+-	10,571	967,808	1.185.200	1.540,000	Notice (1) sand	Approval any 722 223,5	- 2-	PY 3805/23	-							2,218,708	WHEN CAULINE	Approximately 18,780,0004	1977	8,880,000	Within City Junit	PF 2213/34 - PF 3
			-	Subsyster-Office	neine FLIP Daarine Tre	ordariy Ayaya I	101000-00100-001	1,096,708	47248280	02942/06				97 (Mi G / D	1.44	-	11.100	1000000	. Lander	and the state	Approximately 175 (201)	008.000	With Annoughers Walton City Lines	Approximately 25,290,2014		2,890,890	works (15) Lossi	PT 2010/20 - FF
MA 13 Paray Replacement/Mattice Company NA Web Web Web Vol Codge					1.	-	101					755.055 9100-	Die Lierit.	PY 1813(18		38,319	85,400	106,100	195,000	Binder Dig Lie d	Augentinister), 175 2205	0.00022	Water City Loose	Approximately 2,308 2011		10,700,001		
					104	they			a (* 1	1.4	÷	400.008 yrma-	Div Liere	WY 2011/03	275 64	14H DWLL		w 11		thi sison	-h18.700 (82.90)		WW. Annexation	At Beveropment Occurs				
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					10	and here	went Mana Lift I	anian Differing (1.10.1.240	1,425,010	10108				-												
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429,800

217,700

2018/100

314,750

384,625

256,958 W

- Lift Station Improvements: \$34.6 million -#13,100 W
 - Other Wastewater System Improvements: \$10.7 million
 - Total Cost: \$98.9 million

Sewer System MP Summary Points

- Serving Existing Customers
 - Capacity of Existing Sewer System is good.
 - Capacity of Most Existing Lift Stations not adequate.
- Extending Service to Future Growth
 - Future Capacity Pipeline Projects are Developer Driven.
- Deliverables
 - Master Plan Document
 - Hydraulic Model



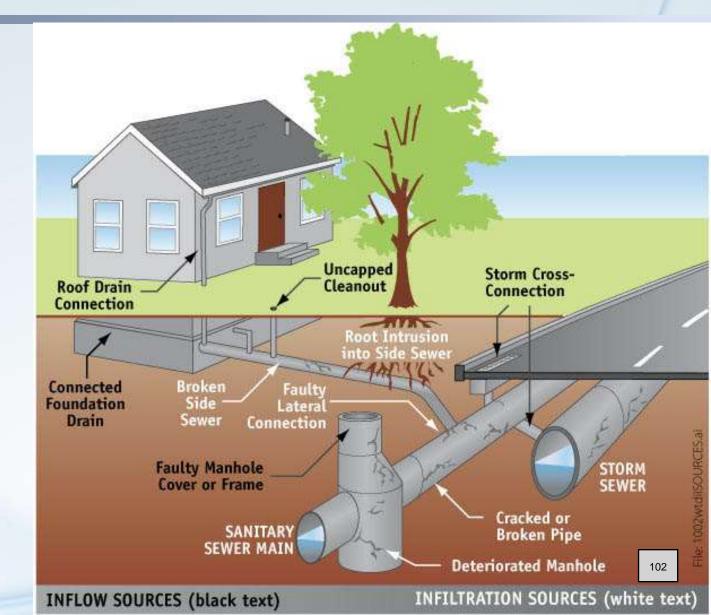


Rate Study

Pipeline Condition Assessment (State and Federal Regulations)
Lift Station Condition Assessment
Update Master Plans every 5 years

Next Steps: Evaluate Condition of the Sewer System

Sewer system pipes age over the years, and if not replaced on time, they will fail





Methods for Evaluating Pipe Condition

- Age-based Replacement Program
- Risk-based Replacement Program
 - Evaluate the Likelihood of Failure
 - Evaluate the Consequence of Failure
 - Evaluate the total Risk Score



4/16/2020 2:04:05 A

DERA SEWER ASSESMENT

City of Beaumont 2021 Wastewater Master Plan

Workshop – Draft Master Plan

June 22, 2021



Historic San Timoteo Corneg

MAY 2021

AKEL

(AUMON)

City of Beaumont

Wastewater Master Plan



RESOLUTION NUMBER 2022 - ____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BEAUMONT ADOPTION OF THE WASTEWATER MASTER PLAN

WHEREAS, in order to better serve current and future wastewater customers in the City of Beaumont, a Wastewater Master Plan has been developed for the City; and

WHEREAS, Akel Engineering, Inc. was retained by the City to prepare the Wastewater Master Plan;

WHEREAS, the City of Beaumont received the Draft Wastewater Master Plan at a public City Council workshop on July 22, 2021 at which time Akel Engineering gave a presentation for the purpose of receiving Council, staff, and public comments which have been incorporated into the final version being submitted herein to the City Council for further consideration;

WHEREAS, the City Council recognizes that funding of the construction costs of facilities recommended within said Wastewater Master Plan will be addressed by separate financial analysis and Capital Improvement Plan and related funding sources; and

NOW, THEREFORE, BE IT RESOLVED, the City Council of the City of Beaumont finds that the recommendations presented by the Wastewater Master Plan are critical to serve the City, address operational goals, and comply with regulatory standards and hereby adopts and approves the Wastewater Master Plan, attached hereto and made a part hereof.

PASSED, APPROVED AND ADOPTED at the regular meeting of the City Council of the City of Beaumont, California, held on the 1st day of February, 2022, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

Mayor

City Clerk

(Seal)



CITY OF BEAUMONT

2021

WASTEWATER MASTER PLAN

Draft

August 2021



Smart Planning Our Water Resources



August 24, 2021

City of Beaumont 550 E 6th Street Beaumont, CA 92223

Attention: Jeff Hart, P.E. Public Works Director

Subject: 2021 Wastewater Master Plan – Draft Report

Dear Jeff:

We are pleased to submit the draft report for the City of Beaumont Wastewater Master Plan. The master plan documents the following:

- Existing wastewater system facilities, acceptable hydraulic performance criteria, and projected wastewater flows consistent within the City's service area.
- Development and calibration of the City's GIS-based wastewater collection system hydraulic model.
- Capacity evaluation of the existing wastewater collection system with improvements to mitigate existing deficiencies and to accommodate future growth.
- Capital Improvement Program (CIP) with an opinion of probable construction costs.

We extend our thanks to you; Jeff Hart, Public Works Director; Kristine Day, Assistant City Manager; Thaxton Van Belle, Chief Plant Operator; Kevin Lee, Wastewater Plant Supervisor; and other City staff whose courtesy and cooperation were valuable components in completing this study.

Sincerely,

AKEL ENGINEERING GROUP, INC.

Tony Akel, P.E. Senior Principal Enclosure: Report



Acknowledgements

City Council

Mike Lara, Mayor Lloyd White, Mayor Pro Tempore David Fenn Julio Martinez Rey Santos

Management Personnel

Todd Parton, City Manager Kristine Day, Assistant City Manager Jeff Hart, Public Works Director Thaxton Van Belle, Chief Plant Operator Kevin Lee, Wastewater Plant Supervisor Other City Engineering, Planning, and Operations Staff

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Appendix B	Hydraulic Model Calibration Exhibits
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Appendix G	Lift Station Condition Assessment – Prepared by V&A
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EXECUTIVE SUMMARY

This executive summary provides a brief background of the City of Beaumont's (City) wastewater collection system, the planning area characteristics, the planning and design criteria, and the hydraulic model development.

The hydraulic model was used to evaluate the capacity adequacy of the existing wastewater collection system and for recommending improvements to mitigate existing deficiencies and for servicing future growth. The prioritized capital improvement program accounts for growth through the Beaumont Planning Area.

ES.1 STUDY OBJECTIVES

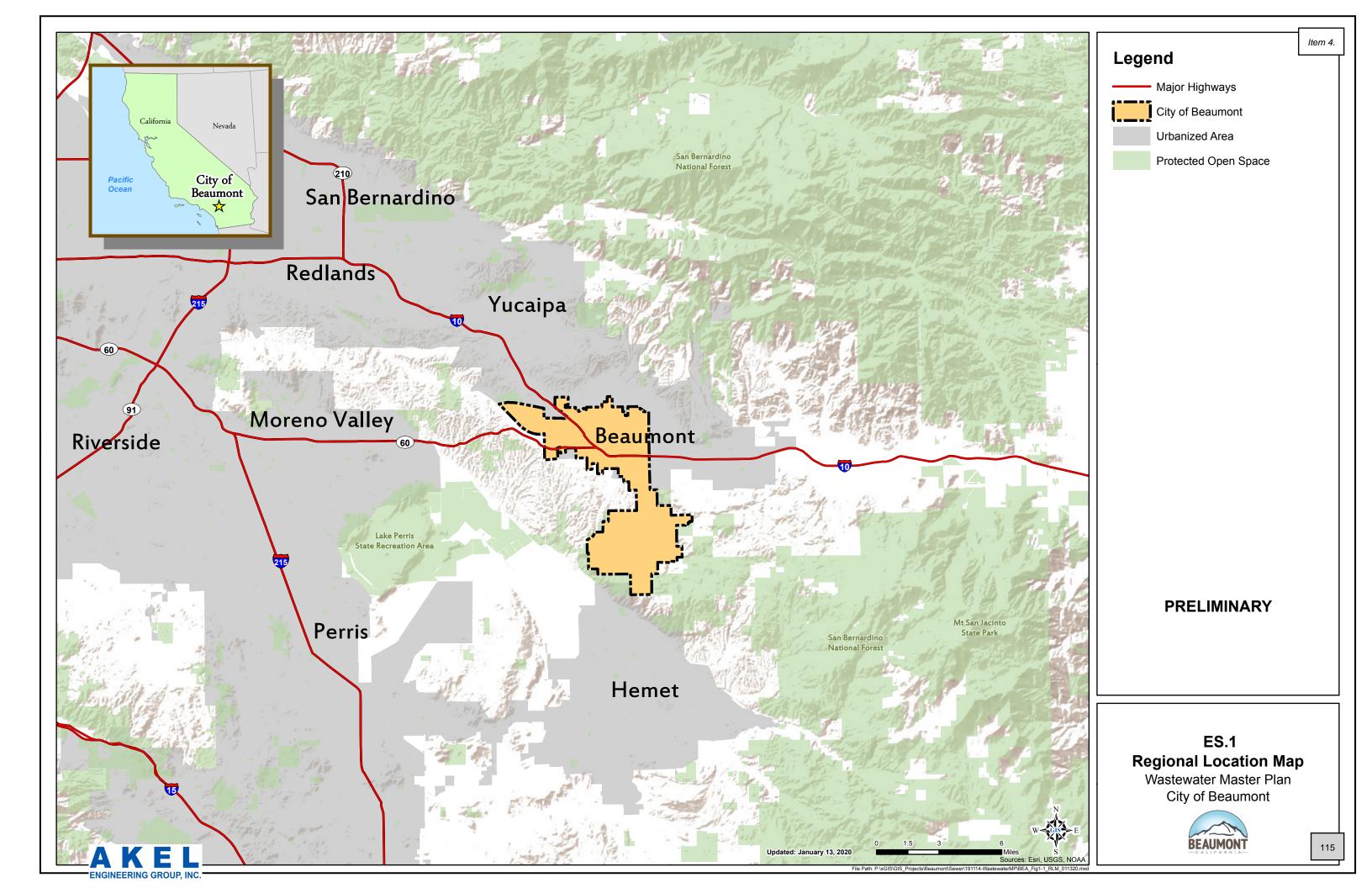
Recognizing the importance of planning, developing, and financing system facilities to provide reliable wastewater service to existing customers and for servicing anticipated growth within the sphere of influence, the City initiated the development of the 2021 Wastewater Master Plan.

This master plan includes the following tasks:

- Summarize the City's existing wastewater collection system facilities.
- Document growth planning assumptions and known future developments.
- Summarize the wastewater system performance criteria and design storm event.
- Project future wastewater flows.
- Develop and calibrate the physical characteristics of the hydraulic model (gravity mains, force mains, and lift stations).
- Evaluate the adequacy of capacity for the wastewater collection system facilities to meet existing and projected peak dry weather flows and peak wet weather flows.
- Recommend a capital improvement program (CIP) with an opinion of probable construction costs.
- Develop a 2021 Wastewater Master Plan Report.

ES.2 STUDY AREA DESCRIPTION

The City of Beaumont is located in Riverside County on the southern portion of California, east of the City of Banning. The City is located approximately 11 miles north of the City of Hemet, 5 miles east of the City of Banning, 12 miles east of City of Monero Valley, and 7 miles southeast of the City of Yucaipa. The City currently encompasses an area greater than 26,000 acres, with an approximate population of 50,000 residents. Figure ES.1 displays the City's location.



The City's service area is generally bound to the north by Brookside Avenue, to the east by Highlands Springs Avenue, and to the southwest of Monero Valley Freeway. The topography is generally steep, with slopes increasing from north to south toward the Interstate 10. Figure ES.2 displays the City's existing service area and the general plan boundary.

The City operates and maintains a wastewater collection system that covers the majority of the developable area within Planning Boundary. Currently, the wastewater flows are conveyed to the City of Beaumont Wastewater Treatment Plant (WWTP).

ES.3 SYSTEM PERFORMANCE AND DESIGN CRITERIA

Gravity main capacities depend on several factors including: material and roughness of the pipe, the limiting velocity and slope, and the maximum allowable depth of flow. The hydraulic modeling software used for evaluating the capacity adequacy of the City's wastewater collection system, InfoSWMM by Innovyze Inc., utilizes the fully dynamic St. Venant's equation which has a more accurate engine for simulating backwater and surcharge, in addition to manifolded force mains. The software also incorporates the use of the Manning Equation in other calculations including upstream pipe flow conditions.

Partial Flow Criteria (d/D)

Partial flow in gravity sewers is expressed as a depth of flow to pipe diameter ratio (d/D). For circular gravity conduits, the highest capacity is generally reached at 92 percent of the full height of the pipe (d/D ratio of 0.92). This is due to the additional wetted perimeter and increased friction of a gravity pipe.

When designing wastewater pipelines, it is common practice to use variable flow depth criteria that allow higher safety factors in larger sizes. Thus, design d/D ratios may range between 0.5 and 0.92, with the lower values used for smaller pipes. The smaller pipes may experience flow peaks greater than planned or may experience blockages from debris. The City's design standards pertaining to the d/D criteria are summarized in Table ES.1.

During peak dry weather flows (PDWF), the maximum allowable d/D ratio for gravity pipelines are summarized as follows:

- 12-inch diameter and smaller: 0.50
- 15-inch diameter and larger: 0.70

During peak wet weather flows (PWWF), the maximum allowable d/D ratio for proposed pipes (all diameters) is 0.75. The maximum allowable d/D ratio for all existing pipes (all diameters) is 1.00. The criterion for existing pipes is relaxed in order to maximize the use of the existing pipes before costly pipes improvements are required. This condition is evaluated using the dynamic hydraulic model and the criteria listed on Table ES.1.

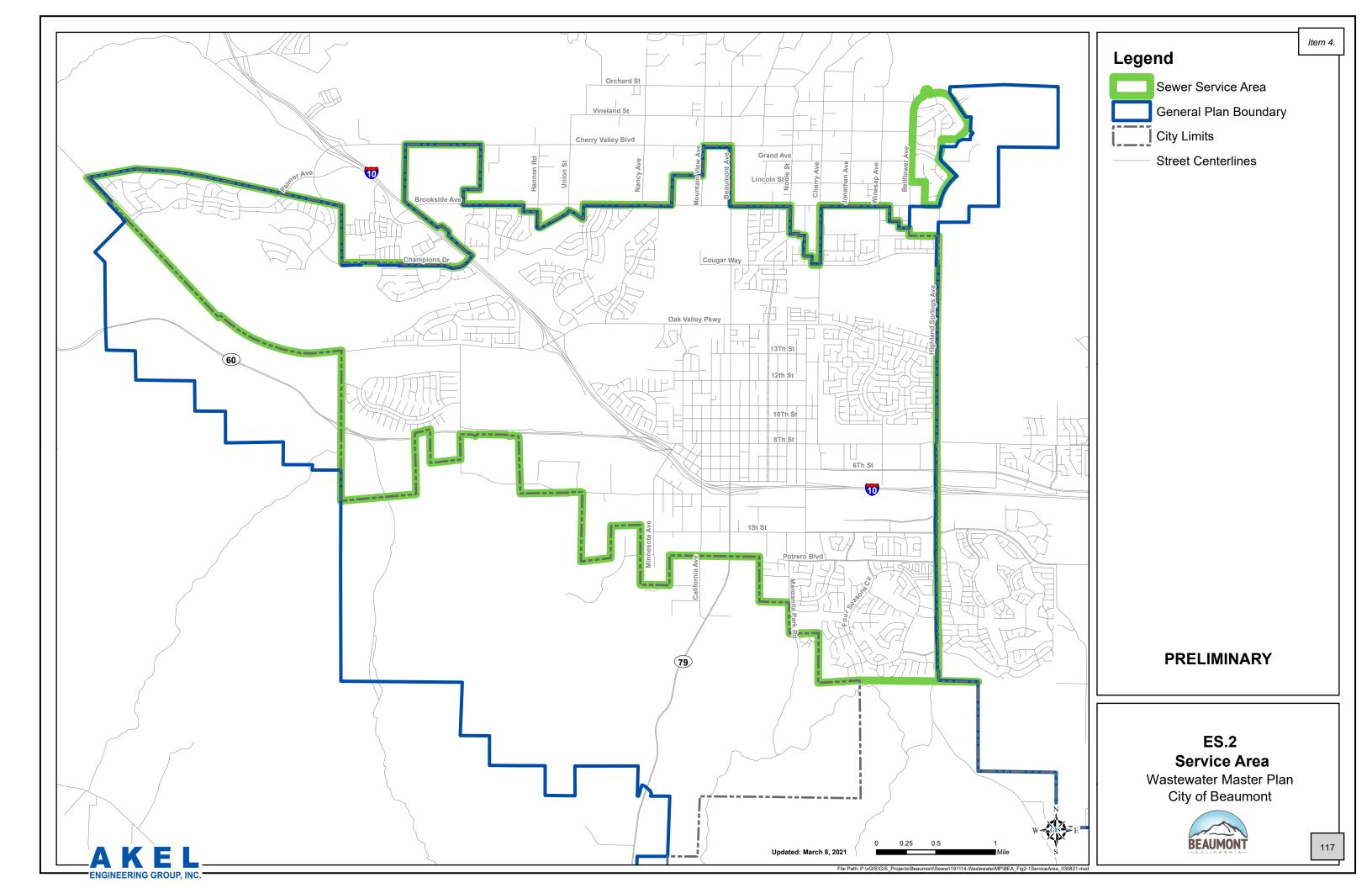


Table ES.1Wastewater System Performance and Design CriteriaWastewater Master PlanCity of Beaumont

	PRELIMINARY										
Dry We	ather Flow Criteria										
Sewer Trunk	d/D										
Diameter < 15 inches	0.50										
Diameter ≥ 15 inches	0.70										
Wet Weather Flow Criteria											
Sewer Trunk	d/D										
Existing System	1.00										
Future System	0.75										
Pipe Slope Criteria											
Pipe Size	Minimum Slope (ft/ft)										
8"	0.004										
10"	0.0032										
12"	0.0024										
15"	0.0016										
18"	0.0014										
21"	0.0012										
24" and Up	0.001										
Pipe Velocity Criteria											
Ріре Туре	Minimum / Maximum Velocity (fps)										
Gravity Sewer	Minimum 2 / Maximum 10										
Force Main	Desired 2 to 6.5 / Maximum 10										

Notes:

1. Source: Eastern Municipal Water District Wastewater Collection System Master Plan

2. Wastewater Collection System performance criteria shall be in accordance with EMWD WCSMP.

ES.4 EXISTING WASTEWATER COLLECTION SYSTEM OVERVIEW

The City provides wastewater collection services to approximately 15,671 residential, commercial, public facilities and institutional accounts. rThe City's existing wastewater collection system consists of approximately 196 miles of gravity mains and force mains, and 10 lift stations that convey flows to the City's WWTP.

The City's existing wastewater collection system is shown in **Figure ES.3**, which displays the existing system by pipe size. This figure provides a general color coding for the collection mains, as well as labeling the existing lift stations.

ES.5 WASTEWATER FLOWS

The wastewater flows collected and treated at the City of Beaumont WWTP vary monthly, daily, and hourly. While the dry weather flows are influenced by customer uses, the wet weather flows are influenced by severity of storm events and the condition of the system.

Flow data influent to the City of Beaumont WWTP was obtained from City operation staff. The flow data covered a period from 2012 to 2019. From this data monthly, daily, and peak daily flows, were determined.

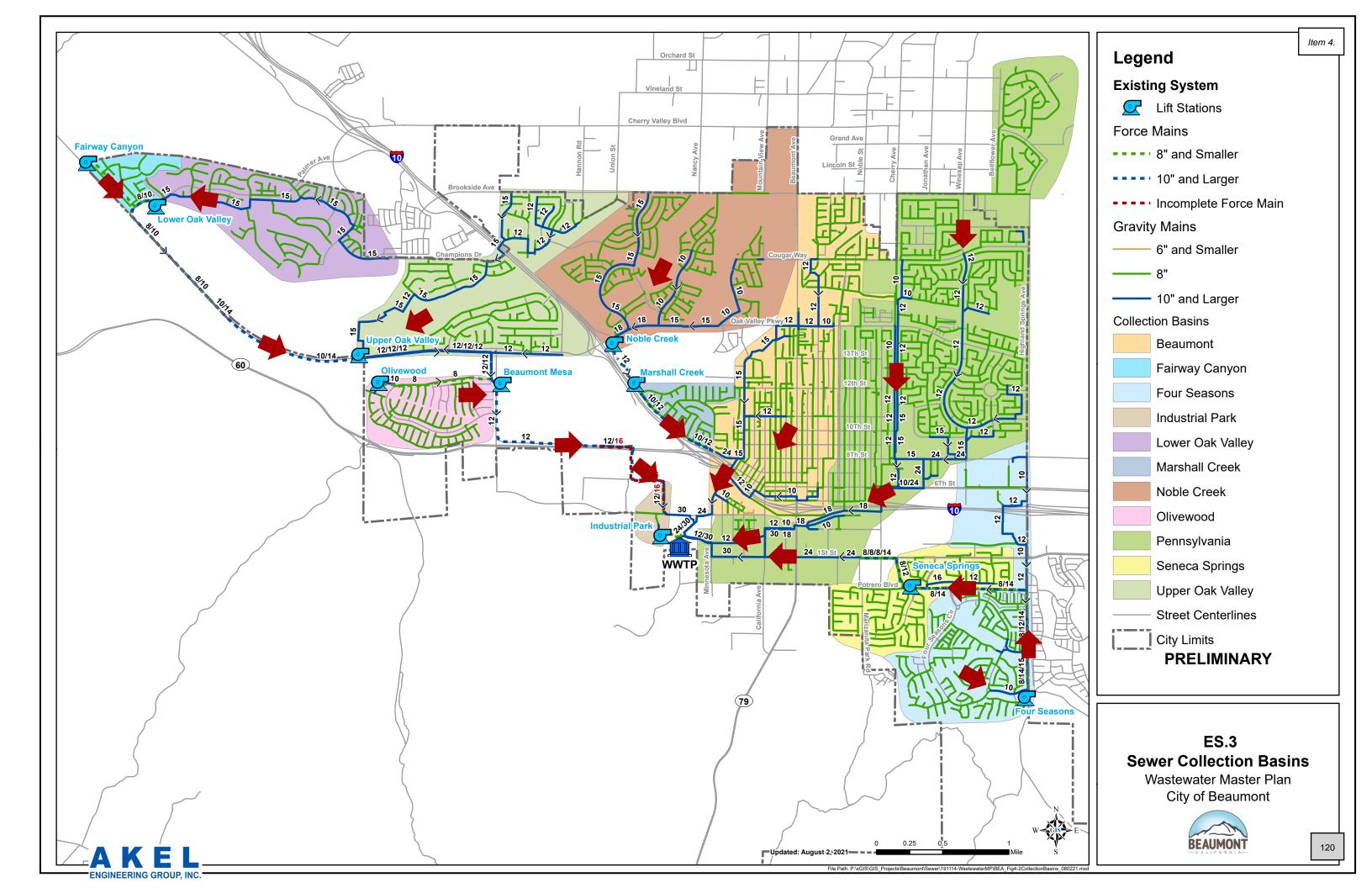
The land use methodology was used to estimate the buildout wastewater flows from City's Planning Area and to be consistent with the General Plan. The undeveloped lands were multiplied by the corresponding unit flow factor to estimate the wastewater flows. The buildout average daily flows were calculated at 17.8 mgd.

ES.6 HYDRAULIC MODEL DEVELOPMENT AND CALIBRATION

The City's hydraulic model combines information on the physical characteristics of the wastewater collection system (pipelines, manholes, and lift stations) and operational characteristics (how they operate). The hydraulic model then performs calculations and solves series of equations to simulate flows in pipes, including backwater calculations for surcharged conditions.

There are several network analysis software products released by different manufacturers that can equally perform the hydraulic analysis satisfactorily. The selection of a particular software depends on user preferences, the wastewater collection system's unique requirements, and the costs for purchasing and maintaining the software.

The hydraulic modeling software used for evaluating the capacity adequacy of the City's wastewater collection system, InfoSWMM by Innovyze Inc., utilizes the fully dynamic St. Venant's equation which has a more accurate engine for simulating backwater and surcharge conditions, in addition to having the capability for simulating manifolded force mains. The software also incorporates the use of the Manning Equation in other calculations including upstream pipe flow conditions. The St Venant's and Manning's equations are discussed in the System Performance and Design Criteria chapter.



Model Development

The hydraulic model for the City of Beaumont was skeletonized to include the pipelines essential to the hydraulic analysis. By comparison, skeletonizing was necessary to reduce the model from 4,300 pipes extracted from GIS to 800 pipes; the total system includes approximately 196 miles of pipe, whereas the hydraulic model includes approximately 56 miles of pipelines. Skeletonizing the model is useful in creating a system that accurately reflects the hydraulics of the pipes within the system while reducing the complexities of large models. This process reduces the time of analysis while maintaining accuracy, but will also comply with the limitations imposed by the computer program. The modeled pipes included pipes 8-inches in a diameter and larger, in addition to some critical smaller gravity wastewater pipes. The inventory pipelines included in the hydraulic model is approximately 28 percent of the overall system.

Model Calibration

Calibration can be performed for steady state conditions, which model the peak hour flows, or for dynamic conditions (24 hours or more). Dynamic calibration consists of comparing the model predictions to diurnal operational changes in the wastewater flows. The City's hydraulic model was calibrated for dynamic conditions.

In wastewater collection systems, and when using dynamic hydraulic modeling to evaluate the impact of wet weather flows, it is common practice to calibrate the model to the following three conditions:

- Peak dry weather flows.
- Peak wet weather flows from storm rainfall Event No. 1(12 March 2020 -13 March 2020)
- Peak wet weather flows from storm rainfall Event No. 2(9 March 2020 10 March 2020)

After the model is calibrated to these conditions, it is benchmarked and used for evaluating the capacity adequacy of the wastewater collection system, under dry and wet weather conditions. The model was also used to identify improvements necessary for mitigating existing system deficiencies and for accommodating future growth.

The hydraulic model is a valuable investment that will continue to prove its worth to the City as future planning issues or other operational conditions surface. It is recommended that the model be maintained and updated with new construction projects to preserve its integrity.

ES.7 CAPACITY EVALUATION

The system performance and design criteria were used as a basis to judge the adequacy of capacity for the existing wastewater collection system. The design flows simulated in the hydraulic model for existing conditions and are listed as follows:

- Existing PDWF = 9.3 mgd
- Existing PWWF = 9.8 mgd

During the peak dry weather simulations, the maximum allowable pipe d/D criteria for gravity pipelines (0.50 for wastewater mains less than or equal to 12-inch or, 0.70 for wastewater mains greater than 12-inch) was used. During the peak wet weather simulations, the existing wastewater mains are allow to reach the full capacity of 1.0 while the future wastewater mains are allow to 75 percent full.

In general, the hydraulic model indicated that the wastewater collection system exhibited acceptable performance to service the existing customers during both peak dry weather flows and peak wet weather flows. Future flows were then added to the hydraulic model and the existing system was expanded in order to serve these future customers. The proposed improvements for the future system are shown with pipe sizes on an overall exhibit on Figure ES.4.

ES.8 CAPITAL IMPROVEMENT PROGRAM

The Capital Improvement Program includes pipeline and lift station improvements recommended in this master plan (Table ES.3). Each improvement was assigned a uniquely coded identifier associated with its tributary area. The baseline costs for pipelines and lift stations are shown in Table ES.2. Improvements are shown in Figure ES.4.

The estimated costs include the baseline costs plus **20 percent** contingency allowance to account for unforeseen events and unknown field conditions. Capital improvement costs include the estimated construction costs plus **30 percent** project related costs (engineering design, project administration, construction management and inspection, and legal costs).

The costs in this Wastewater Master Plan were benchmarked using a 20-City national average ENR CCI of 11,849, reflecting a date of April 2021. In total, the CIP includes approximately 23 miles of gravity mains and force mains, on-going CCTV Program, lift station condition assessment, as well as wastewater treatment plant improvements with a cost totaling over \$99 million dollars.

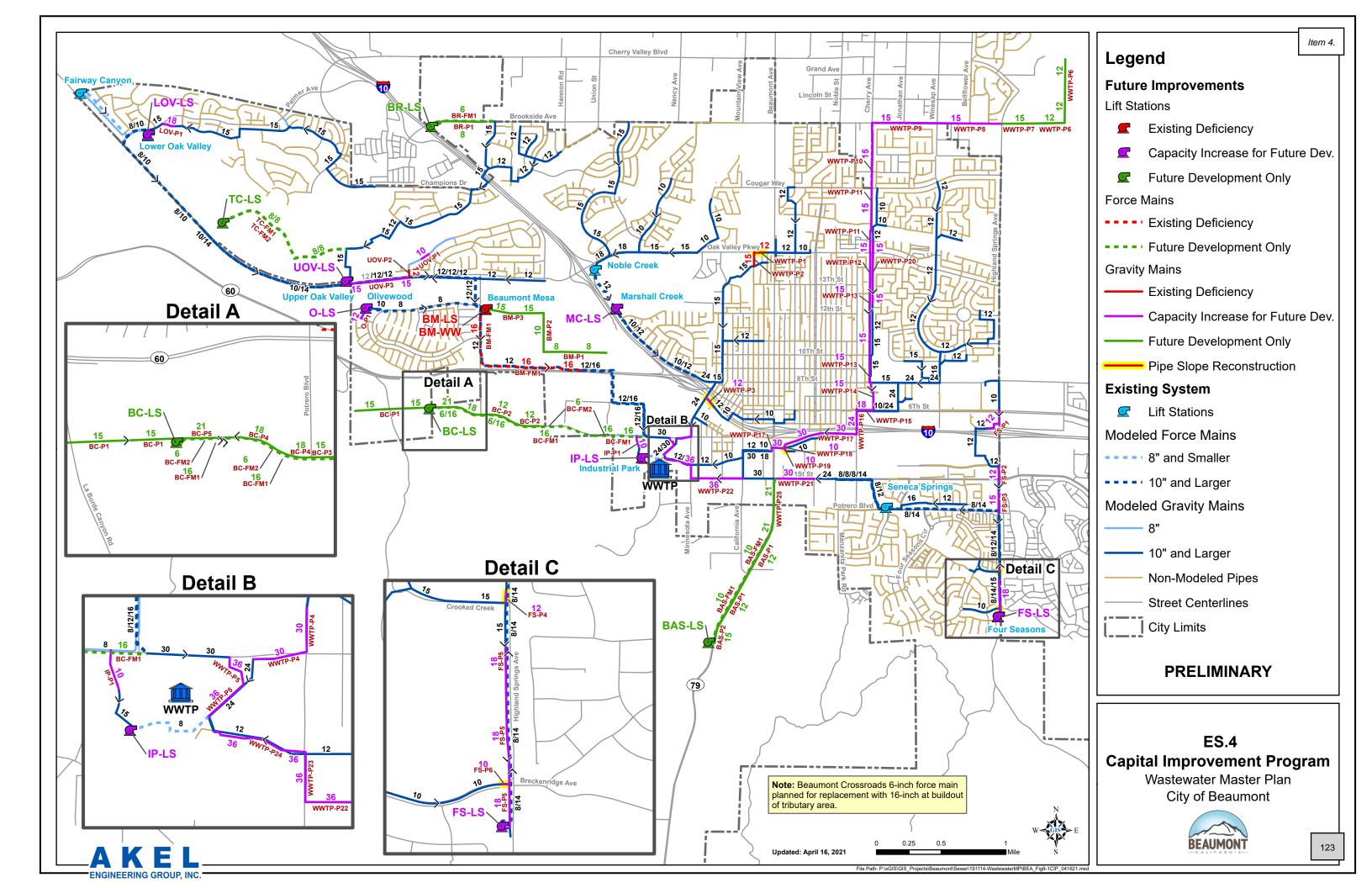


Table ES.2 Unit Costs

Wastewater Master Plan

City of Beaumont

	PRELIMINARY								
Pipeline									
Gravity Main ¹									
Pipe Size	Cost ¹								
(in)	(\$/lineal foot)								
8	\$191								
10	\$200								
12	\$208								
15	\$230								
18	\$247								
21	\$331								
24	\$396								
27	\$468								
30	\$526								
36	\$670								
Force Main ¹									
6	\$216								
8	\$264								
10	\$278								
16	\$376								
Operational and Maintenance ²									
Sewer Pipeline CCTV	\$2.10								
Sewer Pipeline Cleaning	\$1.80								
Lift Station ³									
Estimated Lift Station Project C 314,097*Q + 365,718, when									
ENGINEERING GROUP, INC.	5/21/2021								

Notes :

- 1. Unit costs indexed using the Engineering News Record (ENR) Construction Cost Index of 11,849 for April 2021.
- 2. Sewer pipeline operational and maintenance costs based on Akel Engineering Group experience on similar projects.
- 3. Lift Station costs based on Akel Engineering Group experience on similar projects and escalated using the Engineering News Record (ENR) Construction Cost Index of 11,849 for April 2021.

Wastewater Master Plan

City of Beaumont

	City of Beaumor									1			1	PRELIMINAR
	Time of		Limits		Improvemer	ts Details		Infrastruc	ture Costs	Pacalina Constr	Estimated Const.	Capital Impro.	Future Flow	
mprov. No.	Type of Improvement	Alignment		Existing Diameter	New/ Replace	Diameter	Length	Unit Cost	Infr. Cost	Cost	Cost ¹	Cost ^{2,3}	Service Location	Construction Trigger ⁴
				(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
Lower Oak	Valley Lift Statio	n Tributary Area												
Gravity Mai	n Improvements							1		1			I	
LOV-P1	Future Capacity Increase	Irwin St	From Floyd Cir to Palmer Ave	15	Replace	18	525	247	129,621	129,700	155,700	202,500	Within City Limit	Approximately 200 EDUs
Lift Station I	Improvements													
LOV-LS	Lift Station Replacement	Lower Oak Valley Lift St	ation	-	Replace	3 @ 62	5 gpm	-	1,284,238	1,284,300	1,541,200	2,003,600	Within City Limit	Approximately 260 EDUs
				Subtota	al - Lower Oak	Valley Lift St	ation Tribu	itary Area Im	provements	1,414,000	1,696,900	2,206,100		
Tukwet Ca	nyon (New) Lift S	tation Tributary Area						1		1			1	
Force Main	Improvements													
TC-FM1	New Force Main	Sorenstam Dr/Price St	From Tukwet Canyon lift station to approx. 1,000' n/o Upper Oak Valley lift station	-	New	8	6,250	264	1,652,656	1,652,700	1,983,300	2,578,300	Within City Limit	As Development Occurs
TC-FM2	New Force Main	Sorenstam Dr/Price St	From Tukwet Canyon lift station to	-	New	8	6,250	264	1,652,656	1,652,700	1,983,300	2,578,300	Within City Limit	As Development Occurs
Lift Station I	Improvements		int station					I		I			1	
TC-LS	New Lift Station	Tukwet Canyon Lift Stat	ion	-	New	3 @ 37	5 gpm	-	899,920	900,000	1,080,000	1,404,000	Within City Limit	As Development Occurs
				Subtotal - Tukwet Canyon (New) Lift Station Tributary Area Improvements						4,205,400	5,046,600	6,560,600		
Upper Oak	Valley Lift Statio	n Tributary Area						1		1			1	
Gravity Mai	n Improvements													
UOV-P1	Future Capacity Increase	Straightaway Dr	From Balata St to 350' sw/o Balata St	8	Replace	10	350	200	69,910	70,000	84,000	109,200	Within City Limit	Approximately 70 EDUs
UOV-P2	Existing Capacity Deficiency	Apron Ln	From Stableford Ct to Oak Valley Pkwy	8	Replace	12	300	208	62,342	62,400	74,900	97,400	Within City Limit	FY 2023/24
UOV-P3	Future Capacity Increase	Oak Valley Pkwy	From Apron Ln to 2,450' w/o Apron Ln	12	Replace	15	2,500	230	575,740	575,800	691,000	898,300	Within City Limit	Approximately 1,360 EDUs
Lift Station I	Improvements							1		I			I.	
UOV-LS	Lift Station Replacement	Upper Oak Valley Lift St	ation	-	Replace	3 @ 1,8	50 gpm	-	3,493,305	3,493,400	4,192,100	5,449,800	Within City Limit	Approxiamtely 2,360 EDUs
				Subtota	al - Upper Oak	Valley Lift St	ation Tribu	itary Area Im	provements	4,201,600	5,042,000	6,554,700		
Olivewood	Lift Station Tribu	itary Area						I 						
Gravity Mai	n Improvements													
O-P1	Future Capacity Increase	ROW	From Artisan PI to approx. 500' n/o Artisan PI	10	Replace	12	525	208	109,099	109,100	131,000	170,300	Within City Limit	Approximately 750 EDUs
Lift Station I	Improvements							1						
O-LS	Lift Station Replacement	Olivewood Lift Station		-	Replace	2 @ 65	0 gpm	-	987,577	987,600	1,185,200	1,540,800	Within City Limit	Approximately 710 EDUs
				Subtotal - Olivewood Lift Station Tributary Area Improvements						1,096,700	1,316,200	1,711,100		

Wastewater Master Plan

City of Beaumont

	City of Beaumor									1				PRELIMINAR
	Type of Improvement		Limits		Improvemen	nts Details		Infrastruc	ture Costs	Pacalina Constr	Estimated Const.	Capital Impro.	Future Flow	
Improv. No.		Alignment		Existing Diameter	New/ Replace	Diameter	Length	Unit Cost	Infr. Cost	Cost	Cost ¹	Cost ^{2,3}	Service Location	Construction Trigger ⁴
Brooksido		t Station Tributary Ar	02	(in)		<u>(in)</u>	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
		t Station moutary An	ea											
	n Improvements	Brookside Ave	From 480' w/o Deodar Dr to		Now	o	2 200	191	420,656	420,700	504,900	656,400	Within City Limit	As Dovelopment Ossurs
BR-P1	New Capacity	Brookside Ave	Brookside Ave lift station	-	New	8	2,200	191	420,050	420,700	504,900	000,400	Within City Limit	As Development Occurs
	Improvements	Decide to A	From Brookside Ave lift station to		N	c	2.025	046	000 000	coo ooo	724 000	054 500		
BR-FM1	New Force Main	Brookside Ave	Deodar Dr	-	New	6	2,825	216	609,832	609,900	731,900	951,500	Within City Limit	As Development Occurs
	mprovements						_							
BR-LS	New Lift Station	Brookside Ave Lift Stat	ion	-	New	2 @ 30	0 gpm	-	644,313	644,400	773,300	1,005,300	Within City Limit	As Development Occurs
			S	ubtotal - Broc	kside Avenue	e (New) Lift St	ation Tribu	itary Area Im	provements	1,675,000	2,010,100	2,613,200		
Beaumont	Beaumont Mesa Lift Station Tributary Area													
Gravity Mai	n Improvements													
BM-P1	New Capacity	ROW	From 800' n/o Monero Valley Fwy to 2,600' e/o Potrero Blvd	-	New	8	2,575	191	492,359	492,400	590,900	768,200	Within City Limit	As Development Occurs
BM-P2	New Capacity	ROW	From 2,600' e/o Potrero Blvd to 1,400' s/o Oak Valley Pkwy	-	New	10	1,600	200	319,588	319,600	383,600	498,700	Within City Limit	As Development Occurs
BM-P3	New Capacity	ROW	From 1,400' s/o Oak Valley Pkwy to Beaumont Mesa lift station	-	New	15	2,350	230	541,196	541,200	649,500	844,400	Within City Limit	As Development Occurs
Force Main	Improvements ⁵													
BM-FM1	Force Main Desi	gn and Pump Design		-	New			-	-	-	-	450,000	Within City Limit	FY 2021/22
BM-FM1	New Force Main	Potrero Blvd/Western Knolls Ave	From Beaumont Mesa lift station to 1,300' w/o Western Knolls Ave	-	New	16	6,500	-	-	-	-	4,000,000	Within City Limit	FY 2022/23
Lift Station I	mprovements⁵	kilono / we		I				I		1				
BM-LS	Pump Replacem	ent/Addition Construction	on	-	New	2 @ 3,50 2 @ 1,50		-	-	-	-	750,000	Within City Limit	FY 2022/23
BM-WW	Wet Well Desigr	1		-	New			-	-	-	-	400,000	Within City Limit	FY 2021/22
BM-WW	New Wet Well			-	New			-	-	-	-	4,000,000	Within City Limit	FY 2024/25
				Subto	al - Beaumor	it Mesa Lift St	ation Tribu	itary Area Im	provements	1,353,200	1,624,000	11,711,300		
Beaumont	Crossroads (New) Lift Station Tributary	y Area					1						
Gravity Mai	n Improvements													
BC-P1	New Capacity	W 4th St	From 1,875' s/o Moreno Valley Fwy to Beaumont Crossroads lift station	-	New	15	3,125	230	719,676	719,700	863,700	1,122,900	Within City Limit	As Development Occurs
BC-P2	New Capacity	W 4th St	From 275' w/o of Prosperity Way to 400' e/o Potrero Blvd	-	New	12	2,100	208	436,397	436,400	523,700	680,900	With Annexation	As Development Occurs
BC-P3	New Capacity	W 4th St	From 400' e/o Potrero Blvd to Potrero Blvd	-	New	15	375	230	86,361	86,400	103,700	134,900	With Annexation	As Development Occurs
BC-P4	New Capacity	W 4th St	From Potrero Blvd to 1,350' w/o Potrero Blvd	-	New	18	1,450	247	358,001	358,100	429,800	558,800	With Annexation	As Development Occurs
BC-P5	New Capacity	W 4th St	From 1,350' w/o Potrero Blvd to Beaumont Crossroads lift station	-	New	21	800	331	264,625	264,700	317,700	413,100	With Annexation	As Development Occurs

Wastewater Master Plan

City of Beaumont

														PRELIMINA
		Alignment	Limits		Improveme	nts Details		Infrastruc	ture Costs					
Improv. No.	Type of Improvement			Existing Diameter	New/ Replace	Diameter	Length	Unit Cost	Infr. Cost	Baseline Constr. Cost	Estimated Const. Cost ¹	Capital Impro. Cost ^{2,3}	Future Flow Service Location	Construction Trigger ⁴
				(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
Force Main	Improvements			I.				T					1	
BC-FM1	New Force Main	W 4th St	From Beaumont Crossroads lift station to 100' e/o Nicholas Rd	-	New	16	9,175	376	3,447,614	3,447,700	4,137,300	5,378,500	With Annexation	As Development Occurs
BC-FM2	New Force Main	W 4th St	From Beaumont Crossroads lift station to 100' e/o Nicholas Rd	-	New	6	9,175	216	1,980,605	1,980,700	2,376,900	3,090,000	With Annexation	As Development Occurs
Lift Station	Improvements			I.				1					1	
BC-LS	New Lift Station	Beaumont Crossroads	s Lift Station	-	New	3 @ 2,3	50 gpm	-	4,550,536	4,550,600	5,460,800	7,099,100	With Annexation	As Development Occurs
			Subt	otal - Beaumo	ont Crossroad	ls (New) Lift S	tation Tribu	utary Area Im	provements	11,844,300	14,213,600	18,478,200		
Marshall C	reek Lift Station	ributary Area												
Lift Station	Improvements													
MC-LS	Lift Station Replacement	Marshall Creek Lift Sta	ation	-	Replace	2 @ 1,7	00 gpm	-	2,135,215	2,135,300	2,562,400	3,331,200	Within City Limit	Approximately 1,200 EDUs
				Subt	otal - Marsha	all Creek Lift S	tation Tribu	utary Area Im	provements	2,135,300	2,562,400	3,331,200		
Industrial I	Park Lift Station T	ributary Area											1	
Gravity Mai	n Improvements													
IP-P1	Future Capacity Increase	Risco Cir	From W 4th St to 425' s/o W 4th St	8	Replace	10	475	200	94,878	94,900	113,900	148,100	Within City Limit	Approximately 190 EDUs
Lift Station	Improvements													
IP-LS	Lift Station Replacement	Industrial Park Lift Sta	tion	-	Replace	2 @ 30	00 gpm	-	644,313	644,400	773,300	1,005,300	Within City Limit	Approximately 20 EDUs
				Subt	total - Indust	rial Park Lift S	tation Tribu	utary Area Im	provements	739,300	887,200	1,153,400		
Beaumont	Avenue South (N	ew) Lift Station Tribu	utary Area											
Gravity Mai	n Improvements													
BAS-P1	New Capacity	Beaumont Ave	From 1,200' n/o Laird Rd to 2,775' sw/o Laird Rd	-	New	12	4,125	208	857,209	857,300	1,028,800	1,337,500	With Annexation	As Development Occurs
BAS-P2	New Capacity	Beaumont Ave	From 2,775' sw/o Laird Rd to Beaumont Avenue lift station	-	New	15	875	230	201,509	201,600	242,000	314,600	With Annexation	As Development Occurs
Force Main	Improvements			1				1						
BAS-FM1	New Force Main	Beaumont Ave	From Beaumont Avenue lift station to 2,450' s/o E 1st St	-	New	10	5,025	278	1,398,669	1,398,700	1,678,500	2,182,100	With Annexation	As Development Occurs
Lift Station	Improvements												_	
BAS-LS	New Lift Station	Beaumont Avenue So	uth Lift Station	-	New	3 @ 90	00 gpm	-	1,733,029	1,733,100	2,079,800	2,703,800	With Annexation	As Development Occurs
			Subtota	I - Beaumont	Avenue Sout	h (New) Lift S	tation Tribu	utary Area Im	provements	4,190,700	5,029,100	6,538,000		
Wastewate	er Treatment Plar	nt Tributary Area		I 										
Gravity Mai	n Improvements													
WWTP-P1	Future Capacity Increase	Oak Valley Pkwy	From 550' w/o San Miguel Dr to 150' w/o San Miguel Dr	12	Replace	12	425	208	88,319	88,400	106,100	138,000	Within City Limit	Approximately 370 EDUs

PRELIMINARY

Wastewater Master Plan

City of Beaumont

				Improvemer	ts Details		Infrastruc	ture Costs					PRELIMINARY	
Improv. No.	Type of Improvement	Alignment	Limits	Existing Diameter	New/ Replace	Diameter	Length	Unit Cost	Infr. Cost	Baseline Constr. Cost	Estimated Const. Cost ¹	Capital Impro. Cost ^{2,3}	Future Flow Service Location	Construction Trigger ⁴
				(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
WWTP-P2	Existing Capacity Deficiency	Edgar Ave	From Oak Valley Pkwy to 575' s/o Oak Valley Pkwy	12	Replace	15	575	230	132,420	132,500	159,000	206,700	Within City Limit	FY 2022/23
WWTP-P3	Future Capacity Increase	Luis Estrada Rd	From 400' se/o Veile Ave to Veile Ave	12	Replace	12	425	208	88,319	88,400	106,100	138,000	Within City Limit	Approximately 3,830 EDUs
WWTP-P4	Future Capacity Increase	Minnesota Ave/W 4th St	From 525' n/o W 4th St to 600' w/o Minnesota Ave	24	Replace	30	1,125	526	592,178	592,200	710,700	924,000	Within City Limit	Approximately 5,890 EDUs
WWTP-P5	Future Capacity Increase	ROW	From 4th St to 1,100' w/o Minnesota Ave	30	Replace	36	950	670	636,064	636,100	763,400	992,500	Within City Limit	Approximately 8,820 EDUs
WWTP-P6	New Capacity	ROW	From 2,300 ne/o Highland Springs Ave to 1,300 e/o Highland Springs Ave	-	New	12	3,875	208	805,257	805,300	966,400	1,256,400	With Annexation	As Development Occurs
WWTP-P7	New Capacity	ROW	From 1,300' e/o Highland Springs Ave to Highland Springs Ave	-	New	15	1,300	230	299,385	299,400	359,300	467,100	With Annexation	As Development Occurs
WWTP-P8	Future Capacity Increase	Brookside Ave	From Highland Springs Ave to Orchard Heights Ave	8	Replace	15	2,650	230	610,285	610,300	732,400	952,200	With Annexation	As Development Occurs
WWTP-P9	Future Capacity Increase	Brookside Ave	From Orchard Heights Ave to Cherry Ave	8	Replace	15	2,700	230	621,800	621,800	746,200	970,100	Within City Limit With Annexation	Approximately 320 EDUs
WWTP-P10	Future Capacity Increase	Cherry Ave	From Brookside Ave to Cougar Way	8	Replace	15	2,650	230	610,285	610,300	732,400	952,200	Within City Limit With Annexation	Approximately 300 EDUs
WWTP-P11	Future Capacity Increase	Cherry Ave	From Cougar Way to Oak Valley Pkwy	8	Replace	15	2,675	230	616,042	616,100	739,400	961,300	Within City Limit With Annexation	Approximately 210 EDUs
WWTP-P12	Future Capacity Increase	Cherry Ave	From oak Valley Pkwy to Antonell Ct	10	Replace	15	1,700	230	391,504	391,600	470,000	611,000	Within City Limit With Annexation	Approximately 1,170 EDUs
WWTP-P13	Future Capacity Increase	Cherry Ave	From Antonell Ct to E 8th St	12	Replace	15	3,675	230	846,338	846,400	1,015,700	1,320,500	Within City Limit With Annexation	Approximately 2,430 EDUs
WWTP-P14	Future Capacity Increase	Illinois Ave	From E 8th St to E 6th St	12	Replace	15	1,175	230	270,598	270,600	324,800	422,300	Within City Limit With Annexation	Approximately 2,300 EDUs
WWTP-P15	Future Capacity Increase	E 6th St	From Illinois Ave to Pennsylvania Ave	15	Replace	18	700	247	172,828	172,900	207,500	269,800	Within City Limit With Annexation	Approximately 4,070 EDUs
WWTP-P16	Future Capacity Increase	Pennsylvania Ave	From E 6th St to 175' s/o Interstate 10	18	Replace	24	975	396	385,811	385,900	463,100	602,100	Within City Limit With Annexation	Approximately 1,940 EDUs
WWTP-P17	Future Capacity Increase	ROW	From Pennsylvania Ave to 75' w/o Beaumont Ave	18	Replace	30	3,800	526	2,000,246	2,000,300	2,400,400	3,120,600	Within City Limit With Annexation	Approximately 380 EDUs
WWTP-P18	Future Capacity Increase	ROW	From 125' n/o 3rd St to 400' e/o Beaumont Ave	10	Replace	10	125	200	24,968	25,000	30,000	39,000	Within City Limit	Approximately 2,680 EDUs
WWTP-P19	Future Capacity Increase	ROW	From 3rd St to 400' e/o Beaumont Ave	10	Replace	10	175	200	34,955	35,000	42,000	54,600	Within City Limit	Approximately 1,760 EDUs
WWTP-P20	Future Capacity Increase	ROW	From Rover Ln to 350' w/o Houstonia Ln	12	Replace	15	2,550	230	587,255	587,300	704,800	916,300	Within City Limit	Approximately 2,070 EDUs
WWTP-P21	Future Capacity Increase	E 1st St	From Palm Ave to Beaumont Ave	24	Replace	30	1,600	526	842,209	842,300	1,010,800	1,314,100	Within City Limit	Approximately 6,350 EDUs
WWTP-P22	Future Capacity Increase	E 1st st	From California Ave to Minnesota Ave	30	Replace	36	2,125	670	1,422,776	1,422,800	1,707,400	2,219,700	Within City Limit With Annexation	Approximately 15,780 EDUs
WWTP-P23	Future Capacity Increase	Minnesota Ave	From E 1st St to 575' n/o E 1st St	30	Replace	36	575	670	384,986	385,000	462,000	600,600	Within City Limit With Annexation	Approximately 23,390 EDUs
WWTP-P24	Future Capacity Increase	ROW	From 575' n/o E 1st St to 1,025' w/o Minnesota Ave	30	Replace	36	1,100	670	736,496	736,500	883,800	1,149,000	Within City Limit With Annexation	Approximately 2,500 EDUs
WWTP-P25	New Capacity	Beaumont Ave	From E 1st St to 1,275' n/o Laird Rd	-	New	21	2,475	331	818,683	818,700	982,500	1,277,300	With Annexation	As Development Occurs
				Subtota	l - Wastewate	r Treatment I	Plant Tribu	itary Area Im	provements	14,021,100	16,826,200	21,875,400		

PRELIMINARY

Wastewater Master Plan

City of Beaumont

	Type of Improvement	Alignment	Limits	Improvements Details			Infrastructure Costs		Decelie Cont	Fatimated Court	Conital Immu			
mprov. No.				Existing Diameter	New/ Replace	Diameter	Length	Unit Cost	Infr. Cost	Cost	Estimated Const. Cost ¹	Capital Impro. Cost ^{2,3}	Future Flow Service Location	Construction Trigger ⁴
				(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
our Seaso	ns Lift Station Trib	outary Area												
ravity Mai	n Improvements													
FS-P1	Future Capacity Increase	Highland Springs Ave	From E 6th St to 450' w/o Highland Springs Ave	10	Replace	12	1,225	208	254,565	254,600	305,600	397,300	Within City Limit	Approximately 640 EDU
FS-P2	Future Capacity Increase	Highland Springs Ave	From 550' n/o E 1st St to 100' s/o E 1st St	10	Replace	12	650	208	135,075	135,100	162,200	210,900	Within City Limit	Approximately 690 EDU
FS-P3	Future Capacity Increase	Highland Springs Ave	From 800' n/o Potrero Blvd to 50' s/o Potrero Blvd	12	Replace	15	850	230	195,752	195,800	235,000	305,500	Within City Limit	Approximately 1,340 ED
FS-P4	Pipe Slope Reconstruction	Highland Springs Ave	From 100' n/o Crooked Creek to Crooked Creek	12	Replace	12	100	208	20,781	20,800	25,000	32,500	Within City Limit	Approximately 1,470 ED
FS-P5	Future Capacity Increase	Highland Springs Ave	From 350' s/o Crooked Creek to 375' s/o Breckenridge Ave	15	Replace	18	1,525	247	376,518	376,600	452,000	587,600	Within City Limit	Approximately 1,840 EDU
FS-P6	Future Capacity Increase	Breckenridge Ave	From 75' w/o Highland Springs Ave to Highland Springs Ave	10	Replace	10	75	200	14,981	15,000	18,000	23,400	Within City Limit	Approximately 1,830 ED
ft Station I	mprovements							1		Í.			1	
FS-LS	Lift Station Replacement	Four Seasons Lift Station	n	-	Replace	3 @ 1,3	50 gpm	-	2,526,260	2,526,300	3,031,600	3,941,100	Within City Limit	Approximately 3,810 ED
				Su	btotal - Four S	easons Lift St	ation Tribu	itary Area Im	provements	3,524,200	4,229,400	5,498,300		
ther Wast	tewater System In	nprovements ⁶												
	Lift Station Condi	tion Assessment						-	-	-	-	3,600,000	Within City Limit	FY 2022/23 - FY 2030/3
	CCTV Program							-	-	-	-	300,000	Within City Limit	FY 2023/24 FY 2029/30
	On-going Pipeline	e Replacement Program						-	-	-	-	4,800,000	Within City Limit	FY 2023/24 - FY 2030/3
	Wastewater Trea	tment Plant Improveme	nts					-	-	-	-	2,000,000	Within City Limit	FY 2021/22 - FY 2024/2 FY 2028/29 - FY 2030/3
					Sul	ototal - Other	Wastewat	er System Im	provements	-	-	10,700,000		
otal Costs														
							Gra	vity Main Im	provements	20,759,000	24,912,800	32,388,800		
							F	orce Main Im	provements	10,742,400	12,891,200	21,208,700		
								ift Station Im	-	18,899,400	22,679,700	34,634,000		
						Other	Wastewat	er System Im	provements	-	-	10,700,000		
								Total Improv	vement Cost	50,400,800	60,483,700	98,931,500		

Notes:

1. Estimated Construction costs include 20 percent of baseline construction costs to account for unforeseen events and unknown field conditions.

2. Unless noted otherwise, Capital Improvement Costs also include an additional 30 percent of the estimated construction costs to account for administration, construction management, and legal costs.

3. Cost allocation for development related improvements to be reviewed as construction triggers are reached.

4. EDU triggers based on remaining pipeline and lift station capacity and assumes 235 gpd/EDUs, consistent with EMWD Wastewater Master Plan Criteria.

5. Beaumont Mesa force main and wet well expansion reflects City staff budgetary planning estimate provided by City staff June 1, 2021.

6. Other wastewater system improvements reflects City staff budgetary planning estimate provided by City staff June 1, 2021.



CHAPTER 1 - INTRODUCTION

This chapter provides a brief background of the City of Beaumont's (City) wastewater collection system, the need for this master plan, and the objectives of the study. Abbreviations and definitions are also provided in this chapter.

1.1 BACKGROUND

The City of Beaumont (City) is located approximately 11 miles north of the City of Hemet, 12 miles east of the City of Monero Valley, and 7 miles southeast of the City of Yucaipa (Figure 1.1). The City provides wastewater collection service to approximately 50,000 residents, as well as a myriad of commercial, industrial, and institutional establishments. The City owns, operates, and maintains the wastewater collection system, which consists of more than 196 miles of gravity trunks and force mains up to 48-inches in diameter, which ultimately convey flows to the City's Wastewater Treatment Plant.

Recognizing the importance of planning, developing, and financing system facilities to provide reliable wastewater service to existing customers and for servicing anticipated growth within the sphere of influence, the City initiated the development of the 2021 Wastewater Master Plan.

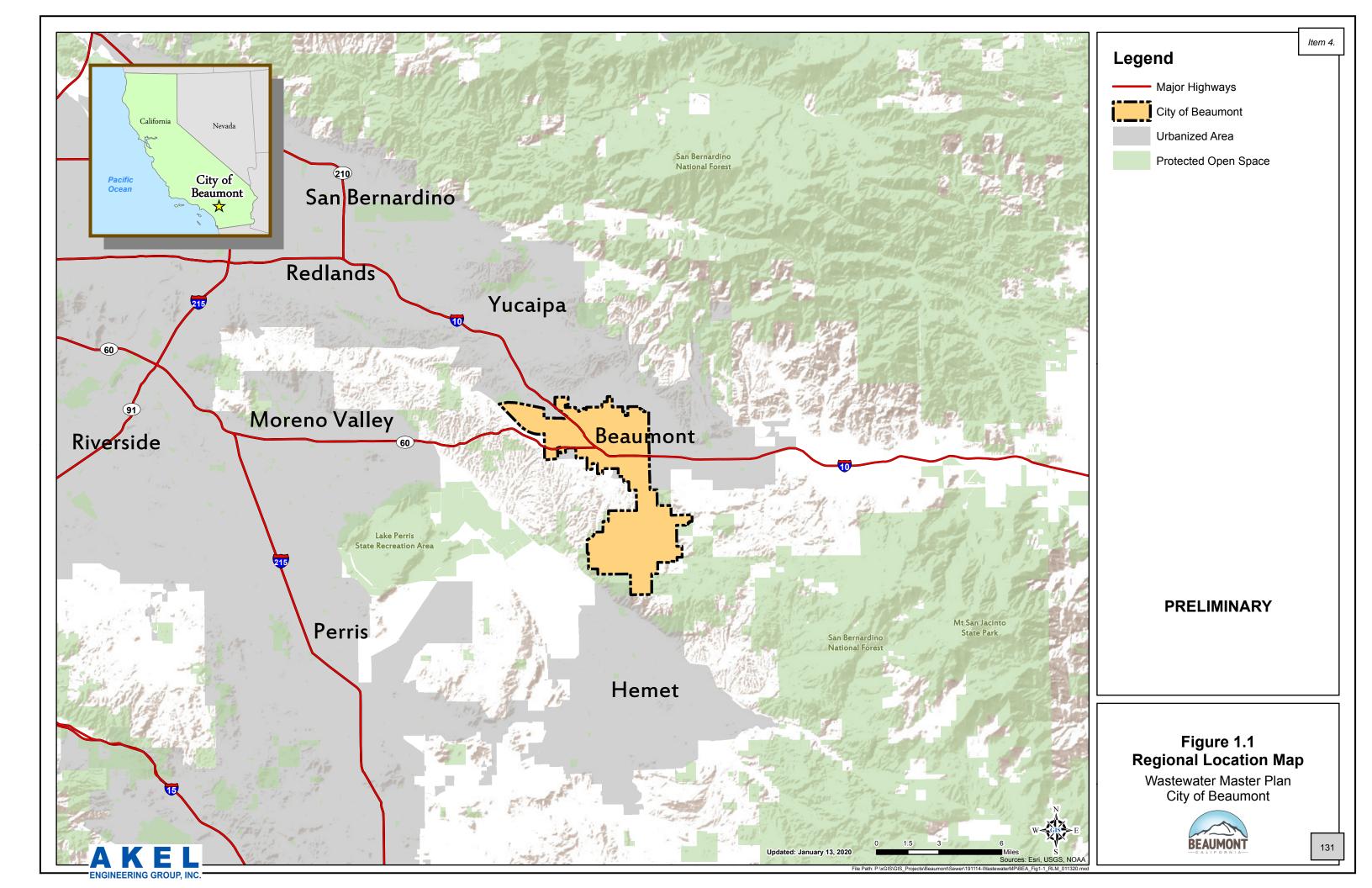
1.2 SCOPE OF WORK

City of Beaumont approved Akel Engineering Group Inc. to prepare this master plan in November of 2019. This 2021 Wastewater Master Plan (WWMP) is intended to serve as a tool for planning and phasing the construction of future wastewater system facilities for the projected buildout of the City of Beaumont. The 2021 WWMP evaluates the City's wastewater collection system and recommends capacity improvements necessary to service the needs of existing users and for servicing the future growth of the City.

Should planning conditions change, and depending on their magnitude, adjustments to the master plan recommendations might be necessary.

This master plan includes the following tasks:

- Summarize the City's existing wastewater collection system facilities.
- Document growth planning assumptions and known future developments.
- Summarize the wastewater system performance criteria and design storm event.
- Project future wastewater flows.
- Develop and calibrate the physical characteristics of the hydraulic model (gravity mains, force mains, and lift stations).



- Evaluate the adequacy of capacity for the sewer system facilities to meet existing and projected peak dry weather flows and peak wet weather flows.
- Recommend a capital improvement program (CIP) with an opinion of probable construction costs.
- Develop a 2021 Wastewater Master Plan Report.

1.3 REPORT ORGANIZATION

The Wastewater Master Plan report contains the following chapters:

Chapter 1 – Introduction. This chapter provides a brief background of the City of Beaumont's (City) wastewater collection system, the need for this master plan, and the objectives of the study. Abbreviations and definitions are also provided in this chapter.

Chapter 2 – Planning Area Characteristics. This chapter presents a discussion of the planning area characteristics for this master plan and includes a study area description, service area land use, and population for the City of Beaumont.

Chapter 3 – System Performance and Design Criteria. This chapter presents the City's performance and design criteria, which were used in this master plan for evaluating the adequacy of capacity for the existing wastewater system and for sizing improvements required to mitigate deficiencies and to accommodate future growth. The design criteria includes: capacity requirements for the wastewater collection facilities, flow calculation methodologies for future users, flow peaking factors, and accounting for infiltration and inflows.

Chapter 4 – Existing Wastewater Collection Facilities. This chapter provides a description of the City's existing wastewater collection system facilities including gravity trunks, force mains, lift stations, and wastewater collection basins. The chapter also includes a brief description of the City's WWTP, which treats and disposes of the wastewater for the City.

Chapter 5 –Wastewater Flows. This chapter summarizes historical wastewater flows experienced at the City's WWTP and defines flow terminologies relevant to this evaluation. This chapter discusses the wastewater flow distribution within the collection basins and identifies the design flows used in the hydraulic modeling effort and capacity evaluation. The design flows include the flows due to existing conditions and buildout development conditions.

Chapter 6 – Hydraulic Model Development. This chapter describes the development and calibration of the City's wastewater collection system hydraulic model. Hydraulic network analysis has become an effectively powerful tool in all aspects of wastewater collection system planning, design, operation, management, and system reliability analysis. The City's hydraulic model was used to evaluate the capacity adequacy of the existing system and to plan its expansion to service anticipated future growth.

Chapter 7 – Evaluation and Proposed Improvements. This chapter presents a summary of the wastewater collection system capacity evaluation during peak dry weather flows and peak wet weather flows for the existing and buildout development conditions. This chapter summarizes the lift station condition assessment performed by V&A. The recommended sewer system improvements needed to mitigate capacity deficiencies are also discussed in this chapter.

Chapter 8 – Capital Improvement Program. This chapter provides a summary of the recommended Capital Improvement Program (CIP) for the City's wastewater collection system. The program is based on the evaluation of the City's wastewater collection system and on the recommended projects described in the previous chapters. The CIP has been prepared to assist the City in planning and constructing the collection system improvements through the ultimate buildout scenario. This chapter also presents the cost criteria and methodologies for developing the capacity improvement costs.

1.4 ACKNOWLEDGEMENTS

Obtaining the necessary information to successfully complete the analysis presented in this report, and developing the long-term strategy for mitigating the existing system deficiencies and for accommodating future growth, was accomplished with the strong commitment and very active input from dedicated team members including:

- Kristine Day, Assistant City Manager
- Jeff Hart, Public Works Director
- Thaxton Van Belle, Chief Plant Operator
- Kevin Lee, Wastewater Plant Supervisor

1.5 UNIT CONVERSIONS AND ABBREVIATIONS

Engineering units were used in reporting flow rates and volumes pertaining to the design and operation of various components of the wastewater collection system. In some cases, different sets of units were used to describe the same parameter where it was necessary to report values in smaller or larger quantities. Values reported in one set of units can be converted to another set of units by applying a multiplication factor. A list of multiplication factors for units used in this report are shown on Table 1.1.

Various abbreviations and acronyms were also used in this report to represent relevant wastewater collective system terminologies and engineering units. A list of abbreviations and acronyms is included in Table 1.2.

Table 1.1 Unit Conversions

Wastewater Master Plan City of Beaumont

City of B	eaumont	PRELIMINARY									
Volume Unit Calculations											
To Convert From:	То:	Multiply by:									
acre feet	gallons	325,857									
acre feet	cubic feet	43,560									
acre feet	million gallons	0.3259									
cubic feet	gallons	7.481									
cubic feet	acre feet	2.296 x 10 ⁻⁵									
cubic feet	million gallons	7.481 x 10 ⁻⁶									
gallons	cubic feet	0.1337									
gallons	acre feet	3.069 x 10 ⁻⁶									
gallons	million gallons	1 x 10 ⁻⁶									
million gallons	gallons	1,000,000									
million gallons	cubic feet	133,672									
million gallons	acre feet	3.069									
Flow Rate Calculations											
To Convert From:	То:	Multiply By:									
ac-ft/yr	mgd	8.93 x 10 ⁻⁴									
ac-ft/yr	cfs	1.381 x 10 ⁻³									
ac-ft/yr	gpm	0.621									
ac-ft/yr	gpd	892.7									
cfs	mgd	0.646									
cfs	gpm	448.8									
cfs	ac-ft/yr	724									
cfs	gpd	646300									
gpd	mgd	1 x 10 ⁻⁶									
gpd	cfs	1.547 x 10 ⁻⁶									
gpd	gpm	6.944 x 10 ⁻⁴									
gpd	ac-ft/yr	1.12 x 10 ⁻³									
gpm	mgd	1.44 x 10 ⁻³									
gpm	cfs	2.228×10^{-3}									
gpm	ac-ft/yr	1.61									
gpm	gpd	1,440									
mgd	cfs	1.547									
mgd	gpm	694.4									
mgd	ac-ft/yr	1,120									
mgd	gpd	1,000,000									
ENGINEERING GROUP, INC.		1/9/2020									

Table 1.2 Abbreviations and Acronyms

Wastewater Master Plan City of Beaumont

PRELIMINARY

Abbreviation	Expansion	Abbreviation	Expansion
10yr-24hr	10-Year 24-Hour	gpm	Gallons per Minute
AACE	Association for the Advancement of Cost Engineering	HE	Household equivalent
ADWF	Average Dry Weather Flow	HGL	Hydraulic Grade Line
AAF	Annual Average Flow	in/hr	Inch per Hour
Akel	Akel Engineering Group, Inc.	1&1	Infiltration and Inflow
AWWF	Average Wet Weather Flow	LF	Linear Feet
ССІ	Construct Cost Index	LS	Lift Station
CIP	Capital Improvement Program	MDDWF	Maximum Day Dry Weather Flow
CIPP	Cured in Place Pipe	MDWWF	Maximum Day Wet Weather Flow
DDF	Depth Duration Frequency	MGD	Million Gallons per Day
d/D	depth of flow to pipe diameter	MMDWF	Maximum Month Dry Weather Flow
City	City of Beaumont	MMWWF	Maximum Month Wet Weather Flow
ENR	Engineering News Record	NASSCO	National Association of Sewer Service Companies
ft	Feet	NOAA	National Oceanic and Atmospheric Administration
fps	Feet per Second	PDWF	Peak Dry Weather Flow
FY	Fiscal Year	PWWF	Peak Wet Weather Flow
GIS	Geographic Information Systems	ROW	Right of Way
gpdc	Gallons per day per capita	UWMP	Urban Water Management Plan
gpd	Gallons per Day	WWTP	Wastewater Treatment Plant

AKEL

1/9/2020

1.6 GEOGRAPHIC INFORMATION SYSTEMS

This master planning effort made extensive use of Geographic Information Systems (GIS) technology, for efficiently completing the following tasks:

- Developing the physical characteristics of the hydraulic model (gravity mains, force mains, and lift stations).
- Allocating existing wastewater loads, as calculated using the developed wastewater unit factors.
- Calculating and allocating future wastewater loads, based on the future developments land use.
- Extracting ground elevations along the gravity and force mains from available contour maps.
- Generating maps and exhibits used in this master plan.

City of Beaumont

CHAPTER 2 - PLANNING AREA CHARACTERISTICS

This chapter presents a discussion of the planning area characteristics for this master plan and includes a study area description, service area land use, and population for the City of Beaumont.

2.1 STUDY AREA DESCRIPTION

The City of Beaumont is located in Riverside County on the southern portion of California, east of the City of Banning. The City is located approximately 11 miles north of the City of Hemet, 5 miles east of the City of Banning, 12 miles east of City of Monero Valley, and 7 miles southeast of the City of Yucaipa. The City currently encompasses an area greater than 26,000 acres., with an approximate population of 50,000 residents.

The City's service area is generally bound to the north by Brookside Avenue, to the east by Highlands Springs Avenue, and to the southwest of Monero Valley Freeway. The topography is generally steep, with slopes increasing from north to south toward the Interstate 10. Figure 2.1 displays the City's existing service area and the general plan boundary.

The City operates and maintains a wastewater collection system that covers the majority of the developable area within Planning Boundary. Currently, the wastewater flows are conveyed to the City of Beaumont Wastewater Treatment Plant (WWTP).

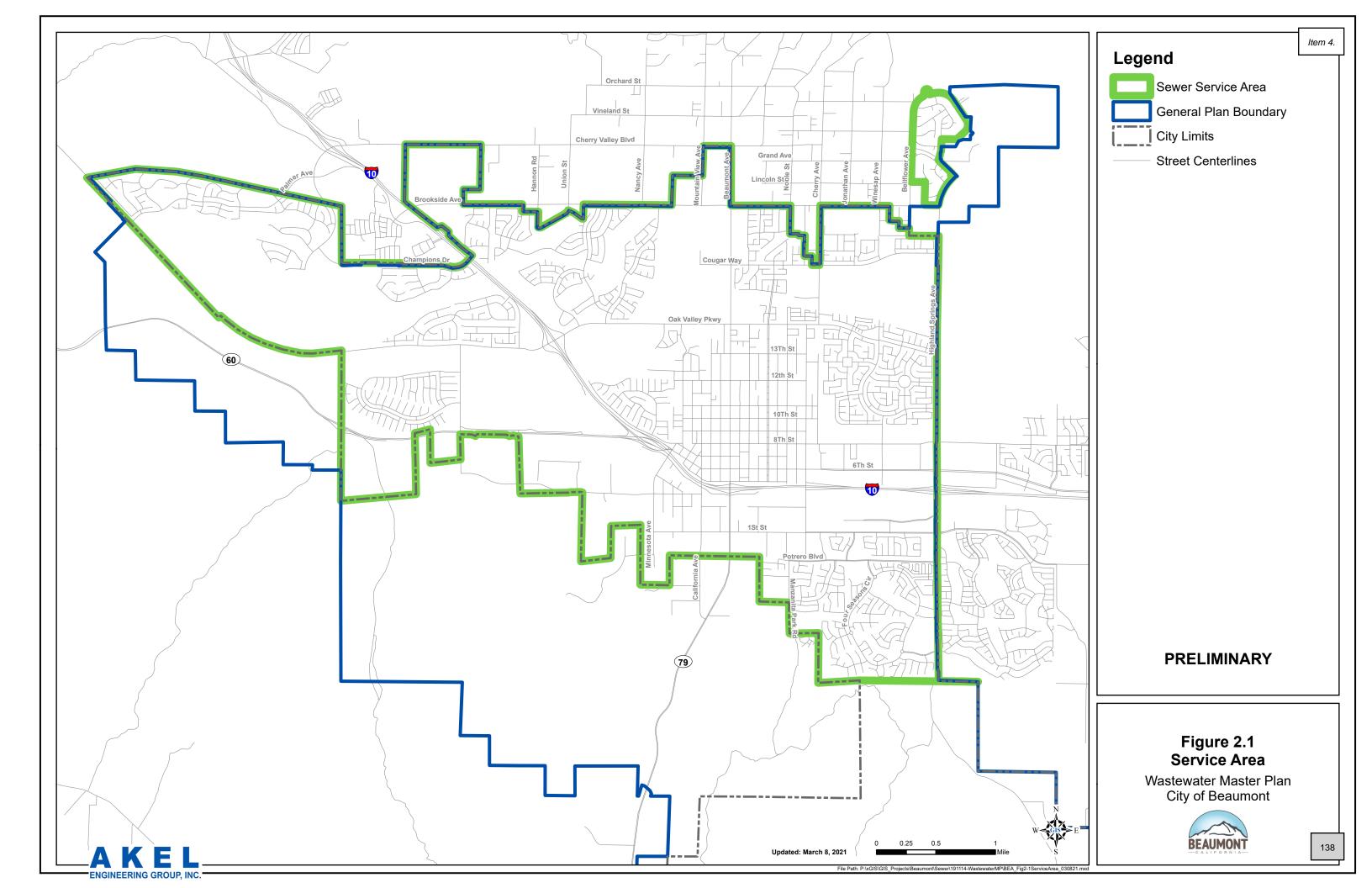
2.2 WASTEWATER COLLECTION SYSTEM SERVICE AREA

The City's wastewater collection system services residential and non-residential lands within the City limits, as summarized on Table 2.1, and shown graphically on Figure 2.2. Areas within the City's potential wastewater collection service area include:

- 3,205 acres of flow generating lands including residential and non-residential areas.
- 11,405 acres of non-flow generating areas.

The existing land use statistics were based on land use information received from City staff. Plan, however for the purposes of estimating wastewater flows, these acreages were assumed to retain their existing land use, such as residential or commercial. It should be noted that Cherry Valley operate own water and wastewater facilities; these users are not serviced by City's water system but do convey wastewater flows to the Beaumont WWTP. For planning purposes, most of the acreages are Single-Family Residential and included in Table 2.1.

An ultimate development of the General Plan, the City's wastewater collection system is anticipated to service approximately 6,793 acres of residential land use, 7,013 acres of non-residential land use, and 11,433 acres of non-flow generating land use, for a total of 25,239 acres inside the planning area, and including in Table 2.1. The land use designations utilized in this



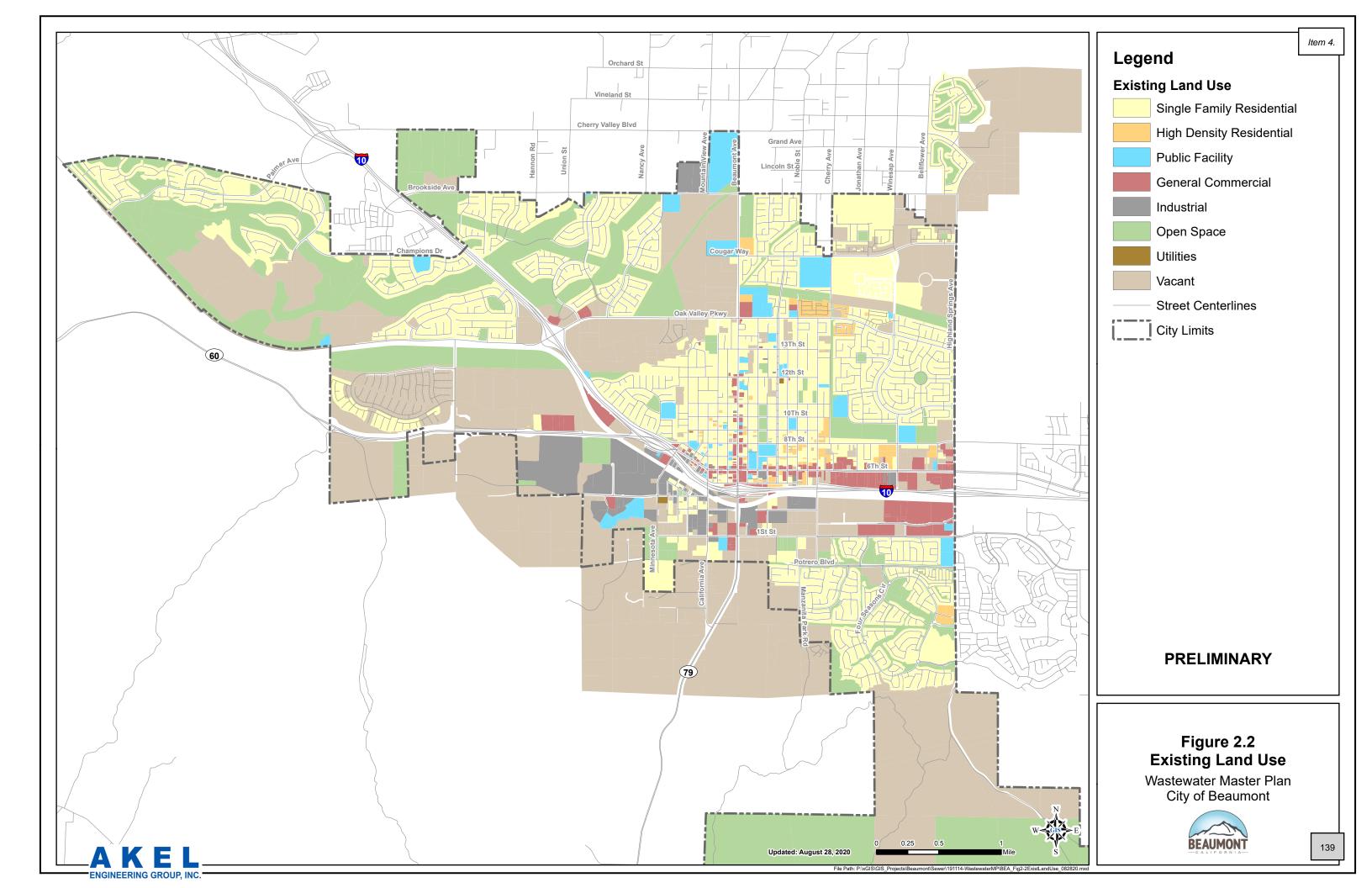


Table 2.1 Existing and Future Land Use

Wastewater Master Plan

City of Beaumont

		E	xisting Developme	nt	Future Development			
eneral Plan Land Use Classification ¹	Existing Land Use Classification ²	Existing Development (acre)	Existing Lands - Redeveloping (acre)	Subtotal Existing Development - Unchanged (acre)	New Lands - Redevelopment (acre)		Subtotal Future Development (acre)	Total Development (acre)
1	2							
Residential	2	3	4	5	6	7	8	9
Single Family Residential	Single Family Residential	2,568	-178	2,389	118	588	706	3,096
• ,	Mobile Homes and Trailer Parks							
under beschen Beschlauffelt	Mixed Residential	124	F4	00	6	276	202	264
High Density Residential Rural Residential	Multi-Family Residential Rural Residential	134 0	-51	83 0	6 2,446	276 312	282 2,758	364 2,758
Traditional Neighborhood		0	0	0	76	499	574	574
	- Subtotal - Residential	2,701	-229	2,472	2,645	1,676	4,321	6,793
Non-Residential		_,		_,	_,0 .0	2,070	.,•==	0,700
General Commercial	Commercial and Services	389	-147	242	28	324	352	595
	General Office							
Neighborhood Commercial	-	0	0	0	34	11	46	46
Industrial	Industrial	280	-69	211	52	315	367	577
Public Facility	Facilities	293	-13	280	44	64	107	388
	Education							
Downtown Mixed Use	-	0	0	0	321	64	386	386
Urban Village	-	0	0	0	107	536	643	643
Employment District	-	0	0	0	0	179	179	179
Specific Plans and Other Developments	-	0	0	0	0	4,200	4,200	4,200
	Subtotal - Non-Residential	962	-229	733	586	5,693	6,280	7,013
Non-Flow Generating								
Open Space	Open Space and Recreation	8,533	-221	8,312	0	28	28	8,341
	Agriculture	0	0	0	0	0	0	0
Vacant	Vacant	2,934	0	2,934	0	0	0	2,934
Utilities	Utilities	4	0	4	0	0	0	4
ROW	ROW	155	0	155	0	0	0	155
	Subtotal - Non-Flow	11,626	-221	11,405	0	28	28	11,433
AKEL	Total Developed Area	15,289	-679	14,610	3,231	7,397	10,628	25,239

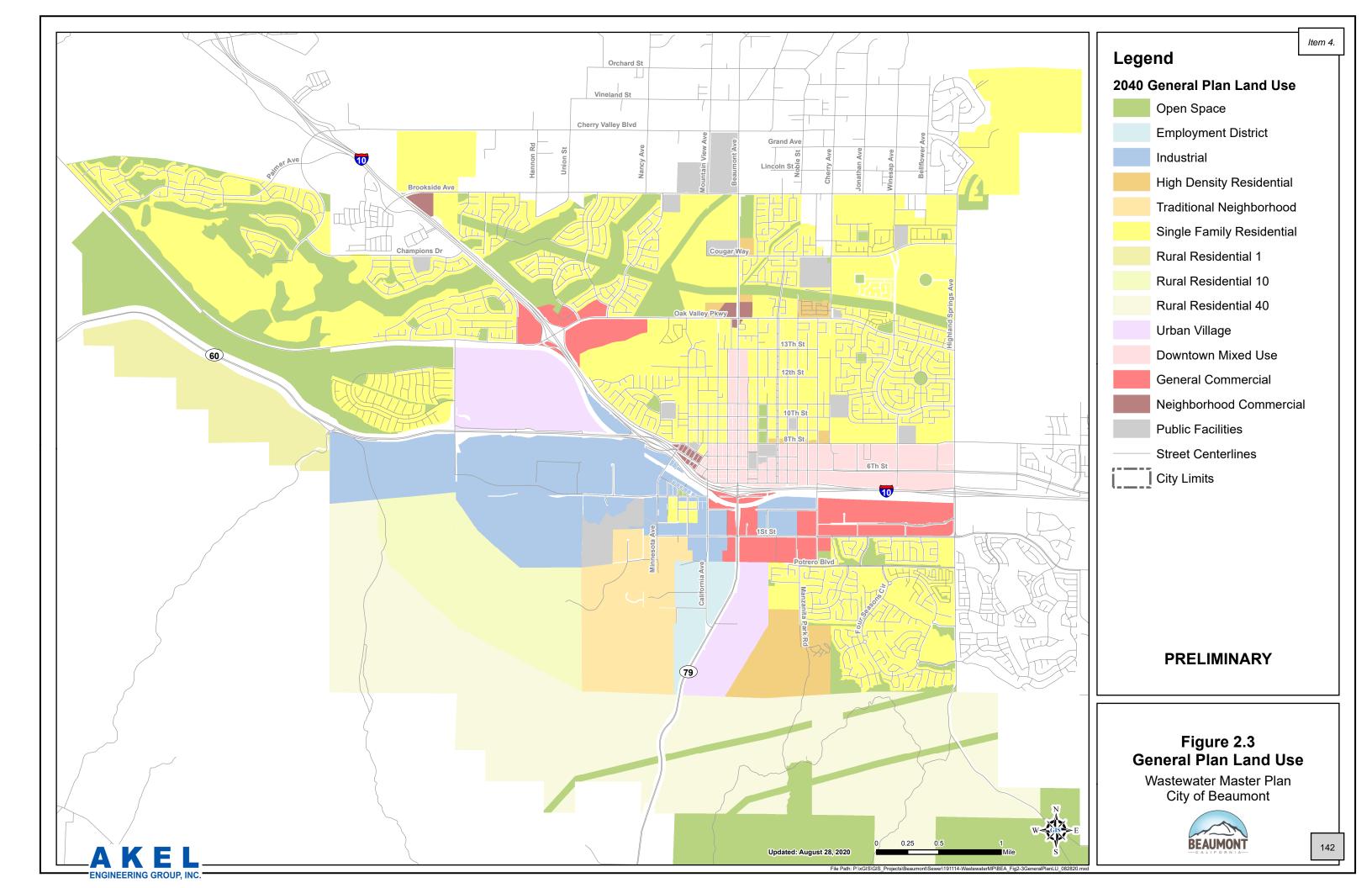
1. Source: City of Beaumont Public Draft General Plan (2020)

2. Source: Southern California Association of Governments (SCAG) 2016 Existing Land Use file extracted from City of Beaumont Planning Viewer online web application.

master plan are consistent with the Land Use Element of the City's General Plan, and as received from the City's planning division and shown on Figure 2.3.

In addition to the General Plan Land Use documented on Figure 2.3 there are multiple areas of known development, which are defined by Specific Plans or other development planning information. These known development areas provide a more refined definition of planned land uses, which is used for estimating future flows. The known development areas are summarized on Figure 2.4, with the land use information shown on Table 2.2. Based on a review of aerial imagery and existing land use information some known development areas are partially developed or completely developed. The areas or remaining development area summarized on Table 2.3. The known development areas are briefly summarized in the following sections:

- Amazon: This development includes approximately 66 acres of industrial use.
- ASM: This development includes approximately 49 acres of industrial use.
- **Beaumont Commercial Center:** This development includes approximately 17 acres of commercial use.
- **Beaumont Crossroads II:** This development includes approximately 166 acres of industrial use.
- **Curtis Development:** This development includes approximately 67 acres of single-family residential use.
- **Fairway Canyon:** This development includes approximately 703 acres, which includes 661 acres of single-family residential, 12 acres of commercial and 30 acres of public facilities.
- Four Seasons: This development includes approximately 386 acres, which includes 366 acres of single-family residential, 3 acres of multi-family residential and 17 acres of commercial.
- Hall: This development includes approximately 11 acres of industrial use.
- **Heartland/Olivewood:** This development includes approximately 279 acres, which includes 208 acres of single-family residential, 12 acres of commercial, 50 acres of industrial and 9 acres of public facilities.
- Home Depot: This development includes approximately 22 acres of commercial use.
- Jack Rabbit Trail: This development includes approximately 255 acres, which includes 30 acres of commercial and 225 acres of industrial.
- **Kirkwood Ranch:** This development includes approximately 128 acres, which inlcudes 123 acres of single-family residential and 5 acres of multi-family residential.



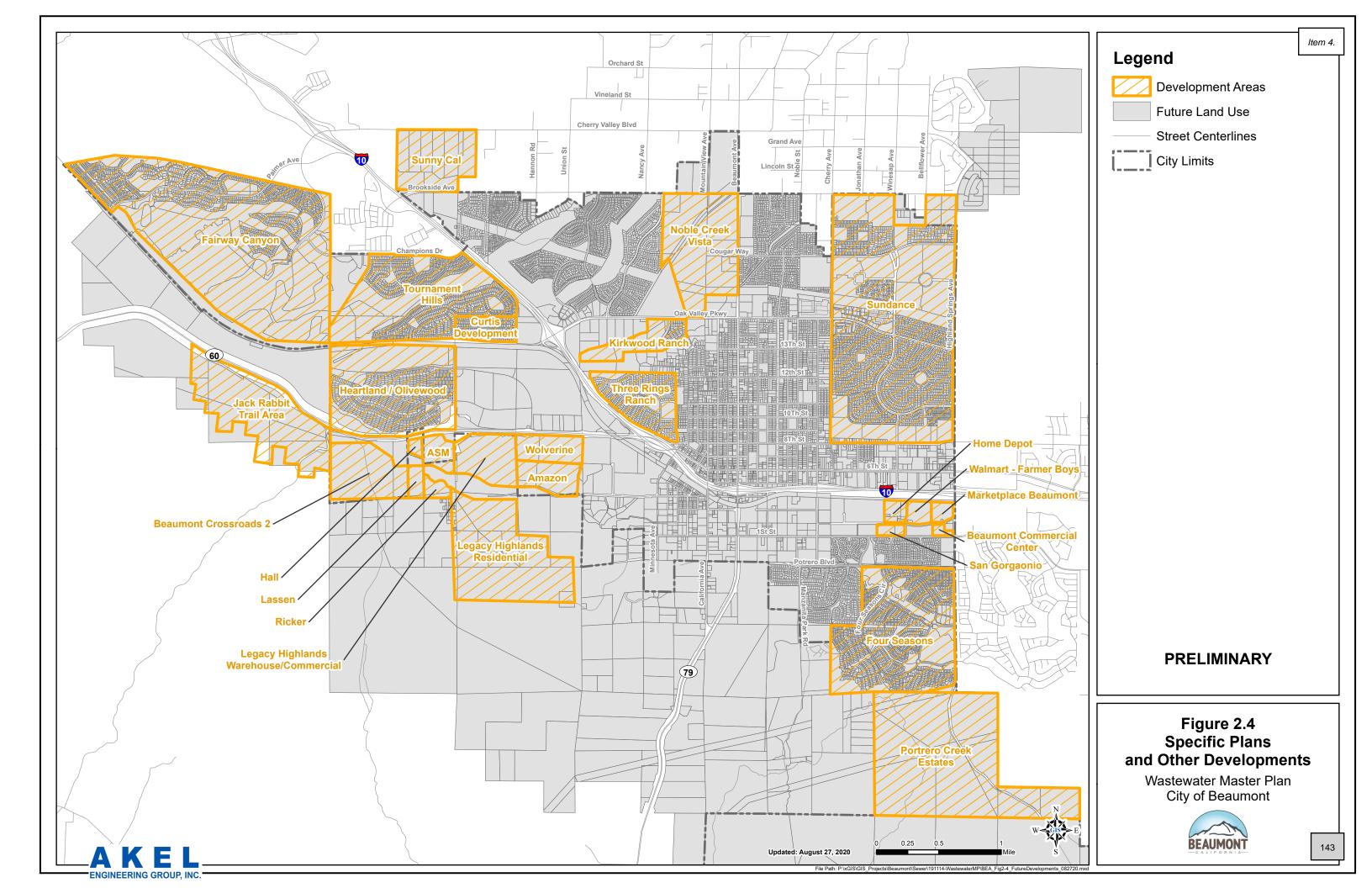


Table 2.2 Specific Plans and Other Developments, Total Development Area

Wastewater Master Plan

City of Beaumont

	Total Development Area, by Land Use Type ¹									
Known Developments	Single Family Residential	Multi-Family Residential	Commercial	Industrial	Public Facilities	Tot				
	(acres)	(acres)	(acres)	(acres)	(acres)	(acre				
Amazon	-	-	-	65.7	-	65				
ASM	-	-	-	49.3	-	49				
Beaumont Commercial Center	-	-	17.4	-	-	17				
Beaumont Crossroads II	-	-	-	165.5	-	165				
Curtis Development	66.7	-	-	-	-	66				
Fairway Canyon	660.9	-	12.0	-	30.0	702				
Four Seasons	365.3	3.3	17.0	-	-	385				
Hall	-	-	-	11.2	-	11				
Heartland/Olivewood	207.6	-	11.5	50.3	9.2	278				
Home Depot	-	-	21.8	-	-	21				
Jack Rabbit Trail	-	-	30.0	225.0	-	25				
Kirkwood Ranch	123.0	5.0	-	-	-	12				
Lassen	-	-	-	17.3	-	17				
Legacy Highlands Residential	541.4	71.3	-	-	20.0	632				
Legacy Highlands Warehouse	-	-	14.0	92.0	-	10				
Marketplace Beaumont	-	-	17.4	-	-	17				
Noble Creek Vistas	181.2	-	-	-	32.6	213				
Portrero Creek Estates ²	733.0	-	-	-	-	733				
Ricker	-	-	-	18.0	-	18				
San Gorgaonio	-	-	23.0	-	-	23				
Sundance	874.4	39.0	14.0	-	39.0	966				
Sunny Cal	112.1	-	-	-	-	112				
Three Rings Ranch	143.2	10.0	-	-	-	153				
Tournament Hills	305.4	-	34.4	-	10.0	349				
Walmart - Farmer Boys	-	-	22.7	-	-	22				
Wolverine	-	-	-	60.0	-	60				
Total	4,314	129	235	754	141	5,5				

1. Unless noted otherwise, development information shown based on planning documents provided by City staff on November 25, 2019 and December 5, 2019.

2. Source: City of Beaumont General Plan Public Draft, August 2020

PRELIMINARY

Item 4.

Table 2.3 Specific Plans and Other Developments, Remaining Development Area

Wastewater Master Plan

City of Beaumont

PRELIMINAR	Y
------------	---

Item 4.

		Remaining D	evelopment Ar	ea, by Land	Use Type ¹	
Known Developments	Single Family Residential	Multi-Family Residential	Commercial	Industrial	Public Facilities	Tota
	(acres)	(acres)	(acres)	(acres)	(acres)	(acre
Amazon	-	-	-	65.7	-	65.
ASM	-	-	-	49.3	-	49.
Beaumont Commercial Center	-	-	-	-	-	-
Beaumont Crossroads II	-	-	-	165.5	-	165
Curtis Development	-	-	-	-	-	-
Fairway Canyon	431.9	-	-	-	-	431
Four Seasons	216.3	-	-	-	-	216
Hall	-	-	-	11.2	-	11.
Heartland/Olivewood	207.6	-	11.5	50.3	9.2	278
Home Depot	-	-	-	-	-	-
Jack Rabbit Trail	-	-	30.0	225.0	-	255
Kirkwood Ranch	123.0	5.0	-	-	-	128
Lassen	-	-	-	17.3	-	17
Legacy Highlands Residential	541.4	71.3	-	-	20.0	632
Legacy Highlands Warehouse	-	-	14.0	92.0	-	106
Marketplace Beaumont	-	-	-	-	-	-
Noble Creek Vistas	181.2	-	-	-	32.6	213
Portrero Creek Estates	733.0	-	-	-	-	733
Ricker	-	-	-	18.0	-	18
San Gorgaonio	-	-	4.3	-	-	4.
Sundance	550.6	10.0	-	-	11.9	572
Sunny Cal	112.1	-	-	-	-	112
Three Rings Ranch	-	-	-	-	-	-
Tournament Hills	128.5	-	-	-	-	128
Walmart - Farmer Boys	-	-	-	-	-	-
Wolverine	-	-	-	60.0	-	60.
Total	3,226	86	60	754	74	4,20

Notes:

1. Remaining development area based on a combination of SCAG 2016 Existing Land Use and aerial imagery review

Table 2.4 Specific Plans and Other Developments, Remaining Development Flows

Wastewater Master Plan City of Beaumont

		Average	Dry Weather Flo	ws, by Land Use	• Type ¹	
Known Developments	Single Family Residential	Multi-Family Residential	Commercial	Industrial	Public Facilities	Tota
	(1,396 gpd/acre)	(2,609 gpd/acre)	(1,175 gpd/acre)	(1,763 gpd/acre)	(1,175 gpd/acre)	
	(gpd)	(gpd)	(gpd)	(gpd)	(gpd)	(gpd
Amazon	-	-	-	115,900	-	115,9
ASM	-	-	-	86,828	-	86,82
Beaumont Commercial Center	-	-	-	-	-	-
Beaumont Crossroads II	-	-	-	291,847	-	291,8
Curtis Development	-	-	-	-	-	-
Fairway Canyon	602,932	-	-	-	-	602,9
Four Seasons	301,955	-	-	-	-	301,9
Hall	-	-	-	19,675	-	19,67
Heartland/Olivewood	289,810	-	13,513	88,679	10,810	402,8
Home Depot	-	-	-	-	-	-
Jack Rabbit Trail	-	-	35,250	396,675	-	431,9
Kirkwood Ranch	171,708	13,045	-	-	-	184,7
Lassen	-	-	-	30,570	-	30,57
Legacy Highlands Residential	755,794	186,022	-	-	23,500	965,3
Legacy Highlands Warehouse	-	-	16,450	162,196	-	178,6
Marketplace Beaumont	-	-	-	-	-	-
Noble Creek Vistas	253,011	-	-	-	38,305	291,3
Portrero Creek Estates	1,023,268	-	-	-	-	1,023,
Ricker	-	-	-	31,734	-	31,73
San Gorgaonio	-	-	5,100	-	-	5,10
Sundance	768,652	26,090	-	-	13,983	808,7
Sunny Cal	156,464	-	-	-	-	156,4
Three Rings Ranch	-	-	-	-	-	-
Tournament Hills	179,316	-	-	-	-	179,3
Walmart - Farmer Boys	-	-	-	-	-	-
Wolverine	-	-	-	105,745	-	105,7
Total	4,502,910	225,157	70,312	1,329,849	86,598	6,214,

Note:

1. Flows shown are based on remaining area to be developed for each known development.

- Lassen: This development includes approximately 17 acres of industrial use.
- Legacy Highlands Residential: This development includes approximately 633 acres, which includes 542 acres of single-family residential, 71 acres of multi-family residential and 20 acres of public facilities.
- Legacy Highlands Warehouse: This development includes approximately 106 acres, which includes 14 acres of commercial and 92 acres of industrial.
- Marketplace Beaumont: This development includes approximately 17 acres of commercial use.
- **Noble Creek Vistas:** This development includes approximately 214 acres, which includes includes 181 acres of single-family residential and 33 acres of public facilities.
- **Potrero Creek Estates:** This development includes approximately 733 acres of single-family residential use.
- **Ricker:** This development includes approximately 18 acres of industrial use.
- San Gorgaonio: This development includes approximately 23 acres of commercial use.
- **Sundance:** This development includes approximately 966 acres, which includes 874 acres of single-family residential, 39 acres of multi-family residential, 14 acres of commercial, and 39 acres of public facilities.
- **Sunny Cal:** This development includes approximately 112 acres of single-family residential use.
- **Three Rings Ranch:** This development includes approximately 153 acres, which includes 143 acres of single-family residential and 10 acres of multi-family residential.
- **Tournament Hills:** This development includes approximately 350 acres, which includes approximately 305 acres of single-family residential, 35 acres of commercial and 10 acres of public facilities.
- Walmart Farmer Boys: This development includes approximately 23 acres of commercial use .
- Wolverine: This development includes approximately 60 acres of industrial use.

2.3 HISTORICAL AND FUTURE GROWTH

The City's historical and projected population data are provided by City staff and presented in **Table 2.5**. This table documents the historical population from 2007 to 2018 and the projected population by year to 2038. From 2009 to present the City's service area has observed an average annual growth rate of approximately 4.1 percent. Continuing with the downward growth trend projects the population of 2038 to increase from present 51,263 to 67,144 people.

Table 2.5 Historical and Projected Population

Wastewater Master Plan City of Beaumont

City of Bea	PRELIMINARY	
Year	Population	Percent Growth
	City-Wide	(%)
Historical		()
2007	28,250	10.9%
2008	31,317	10.9%
2009	32,403	5.3%
2010	36,877	5.3%
2011	38,201	5.3%
2012	39,317	5.3%
2013	40,472	5.3%
2014	41,659	3.6%
2015	43,370	3.6%
2016	44,821	3.6%
2017	46,179	3.6%
2018	48,237	3.6%
Projected		
2019	49,915	2.3%
2020	51,263	2.3%
2021	52,291	2.3%
2022	53,061	2.3%
2023	53,950	2.3%
2024	54,463	1.8%
2025	55,234	1.8%
2026	56,261	1.8%
2027	57,416	1.8%
2028	58,947	1.8%
2029	59,974	1.3%
2030	60,745	1.3%
2031	61,258	1.3%
2032	61,772	1.3%
2033	62,917	1.3%
2034	63,816	1.3%
2035	64,715	1.3%
2036	65,485	1.3%
2037	66,127	1.3%
2038	67,144	1.3%
A K E L ENGINEERING GROUP, INC.		1/28/2020

Notes:

1. Historical and Projected Population provided by City staff on December 13, 2019.

^{1/28/2020}

City of Beaumont

CHAPTER 3 - SYSTEM PERFORMANCE AND DESIGN CRITERIA

This chapter presents the City's performance and design criteria that were used in this master plan for evaluating the adequacy of capacity for the existing wastewater collection system and for sizing improvements required to mitigate deficiencies and to accommodate future growth. The design criteria include: capacity requirements for the wastewater collection facilities, flow calculation methodologies for future users, flow peaking factors, and accounting for infiltration and inflows. The City has adopted the Eastern Municipal Water District wastewater system performance and design criteria for wastewater collection system planning and design.

3.1 HYDRAULIC CAPACITY CRITERIA

In addition to applying the City design standards for evaluating hydraulic capacities; this master plan included dynamic hydraulic modeling. The dynamic modeling was a critical and essential element in identifying surcharge conditions resulting from downstream bottlenecks in the gravity mains.

3.1.1 Gravity Mains

Gravity main capacities depend on several factors including: material and roughness of the pipe, the limiting velocity and slope, and the maximum allowable depth of flow. The hydraulic modeling software used for evaluating the capacity adequacy of the City's wastewater collection system, InfoSWMM by Innovyze Inc., utilizes the fully dynamic St. Venant's equation which has a more accurate engine for simulating backwater and surcharge, in addition to manifolded force mains. The software also incorporates the use of the Manning Equation in other calculations including upstream pipe flow conditions.

Manning's Equation for Pipe Capacity

The Continuity equation and the Manning equation for steady-state flow are used for calculating pipe capacities in open channel flow. Open channel flow can consist of either open conduits or, in the case of gravity sewers, partially full closed conduits. Gravity full flow occurs when the conduit is flowing full but has not reached a pressure condition.

• Continuity Equation: Q = VA

Where: Q = peak flow, in cubic feet per second (cfs) V = velocity, in feet per second (fps) A = cross-sectional area of pipe, in square feet (sq. ft.)

• Manning Equation: $V = (1.486 R^{2/3} S^{1/2})/n$

Where: V = velocity, fps n = Manning's roughness coefficient R = hydraulic radius (area divided by wetted perimeter), ft

S = slope of pipe, in feet per foot

St. Venant's Equation for Pipe Capacity

Dynamic modeling facilitates the analysis of unsteady and non-uniform flows (dynamic flows) within a sewer system. Some hydraulic modeling programs have the ability to analyze these types of flows using the St. Venant equation, which take into account unsteady and non-uniform conditions that occur over changes in time and cross-section within system pipes.

The St. Venant equation is a set of two equations, a continuity equation and a dynamic equation, that are used to analyze dynamic flows within a system. The first equation, the continuity equation, relates the continuity of flow mass within the system pipes in terms of: (A) the change in the cross-sectional area of flow at a point over time and (B) The change of flow over the distance of piping in the system. The continuity equation is provided as follows:

• Continuity Equation:
$$\frac{\partial A}{\partial t} + \frac{\partial Q}{\partial x} = 0$$
(A) (B)
Where:
t = time
x = distance along the longitudinal direction of the channel
Q = discharge flow
A = flow cross-sectional area perpendicular to the x directional axis

The second equation, the dynamic equation, relates changes in flow to fluid momentum in the system using: (A) Changes in acceleration at a point over time, (B) Changes in convective flow acceleration, (C) Changes in momentum due to fluid pressure at a given point, (D) Changes in momentum from the friction slope of the pipe and (E) Fluid momentum provided by gravitational forces. The dynamic equation is provided as follows:

• Dynamic Equation:

$$\frac{\partial Q}{\partial t} + \frac{\partial}{\partial t} \left(\beta \frac{Q^2}{A}\right) + gA \frac{\partial y}{\partial x} + gAS_f - gAS_o = 0$$
(A) (B) (C) (D) (E)

Where:

- t = time
- x = distance along the longitudinal direction of the channel

Q = discharge flow

- A = flow cross-sectional area perpendicular to the x directional axis
- y = flow depth measured from the channel bottom and normal to the x directional axis
- S_f = friction slope
- $S_o = channel slope$
- β = momentum
- g = gravitational acceleration

Use of this method of analysis provides a more accurate and precise analysis of flow conditions within the system compared to steady state flow analysis methods. It must be noted that two assumptions are made for use of St. Venant equations in the modeling software. First, flow is one dimensional. This means it is only necessary to consider velocities in the downstream direction and not in the transverse or vertical directions. Second, the flow is gradually varied. This means the vertical pressure distribution increases linearly with depth within the pipe.

Manning's Roughness Coefficient (n)

The Manning roughness coefficient 'n' is a friction coefficient that is used in the Manning formula for flow calculation in open channel flow. In wastewater collection systems, the coefficient can vary between 0.009 and 0.017 depending on pipe material, size of pipe, depth of flow, root intrusion, smoothness of joints, and other factors.

For the purpose of this evaluation, and in accordance with City standards, an "n" value of 0.013 was used for both existing and proposed gravity pipes unless directed otherwise by City staff based on pipe structural condition. This "n" value is an acceptable practice in planning studies.

Partial Flow Criteria (d/D)

Partial flow in gravity sewers is expressed as a depth of flow to pipe diameter ratio (d/D). For circular gravity conduits, the highest capacity is generally reached at 92 percent of the full height of the pipe (d/D ratio of 0.92). This is due to the additional wetted perimeter and increased friction of a gravity pipe.

When designing wastewater pipelines, it is common practice to use variable flow depth criteria that allow higher safety factors in larger sizes. Thus, design d/D ratios may range between 0.5 and 0.92, with the lower values used for smaller pipes. The smaller pipes may experience flow peaks greater than planned or may experience blockages from debris. The City's design standards pertaining to the d/D criteria are summarized in Table 3.1.

During peak dry weather flows (PDWF), the maximum allowable d/D ratio for gravity pipelines are summarized as follows:

- 12-inch diameter and smaller: 0.50
- 15-inch diameter and larger: 0.70

During peak wet weather flows (PWWF), the maximum allowable d/D ratio for proposed pipes (all diameters) is 0.75. The maximum allowable d/D ratio for all existing pipes (all diameters) is 1.00. The criterion for existing pipes is relaxed in order to maximize the use of the existing pipes before costly pipes improvements are required. This condition is evaluated using the dynamic hydraulic model and the criteria listed on Table 3.1.

Table 3.1Wastewater System Performance and Design CriteriaWastewater Master PlanCity of Beaumont

	PRELIMINAR
Dry We	ather Flow Criteria
Sewer Trunk	d/D
Diameter < 15 inches	0.50
Diameter ≥ 15 inches	0.70
Wet We	ather Flow Criteria
Sewer Trunk	d/D
Existing System	1.00
Future System	0.75
Pipe	e Slope Criteria
Pipe Size	Minimum Slope (ft/ft)
8"	0.004
10"	0.0032
12"	0.0024
15"	0.0016
18"	0.0014
21"	0.0012
24" and Up	0.001
Pipe	Velocity Criteria
Ріре Туре	Minimum / Maximum Velocity (fps)
Gravity Sewer	Minimum 2 / Maximum 10
Force Main	Desired 2 to 6.5 / Maximum 10

Notes:

1. Source: Eastern Municipal Water District Wastewater Collection System Master Plan

2. Wastewater Collection System performance criteria shall be in accordance with EMWD WCSMP.

Minimum Pipe Sizes and Design Velocities

In order to minimize the settlement of sewage solids, it is standard practice in the design of gravity mains to specify that a minimum velocity of 2 feet per second (fps) be maintained when the pipeline is half-full. At this velocity, the sewer flow will typically result with self-cleaning of the pipe.

Due to the hydraulics of a circular conduit, velocity of half-full flows approaches the velocity of nearly full flows. Table 3.1 lists the minimum slopes, varying by pipe size, in accordance with the City's design standards. The design standards also specify minimum pipe sizes, depending on the peak dry weather flows, as shown on Table 3.1.

Changes in Pipe Size

When a smaller gravity wastewater pipe joins a larger pipe, the invert of the larger pipe is generally to maintain the same energy gradient. One of the methods used to approximate this condition includes placing the 80 percent depth point (d/D at 0.8) from both wastewater mains at the same elevation. For master planning purposes, and in the absence of known field data, wastewater main crowns were matched at the manholes.

3.1.2 Force Mains and Lift Stations

The Hazen-Williams formula is commonly used for the design of force mains as follows:

- Hazen Williams Velocity Equation: $V = 1.32 C R^{0.63} S^{0.54}$
 - Where: V = mean velocity, fps C = roughness coefficient R = hydraulic radius, ft S = slope of the energy grade line, ft/ft

The value of the Hazen-Williams 'C' varies and depends on the pipe material and is also influenced by the type of construction and pipe age. A 'C' value of 130 was used in this analysis.

The minimum recommended velocity in force mains is at 2 feet per second. The economical pumping velocity in force mains ranges between 3 and 5 fps. A maximum desired velocity is typically around 7 fps and a maximum not-to-exceed velocity is at 10 fps.

The capacities of pump stations are evaluated and designed to meet the peak wet weather flows with one standby pump having a capacity equal to the largest operating unit. The standby pump provides a safety factor in case the duty pump malfunctions during operations and allows for maintenance.

3.2 DRY WEATHER FLOW CRITERIA

Wastewater unit flow factors are coefficients commonly used in planning level analysis to estimate future average daily wastewater flows for areas with predetermined land uses. The unit factors are multiplied by the number of dwelling units or acreages for residential categories, and by the acreages for non-residential categories, to yield the average daily wastewater flow projections.

3.2.1 Unit Flow Factors Methodology

Wastewater unit factors are developed by using water consumption records and applying a return to sewer ratio for each land use to estimate wastewater flow coefficients. There are several methods for developing the unit factors. This analysis relied on the use of the City's water consumption billing records, which lists the monthly water consumption per customer account, by land use type, to estimate the unit factors within the service area.

3.2.2 Average Daily Sewer Unit Flow Factors

Wastewater flow factors were based on water demands as extracted from the City's water consumption billing records. These records provided geographical addresses and were part of the methodology used for distributing the wastewater flows in the hydraulic model. The methodology included applying a return to sewer ratio, applied to each unadjusted water demand factor by individual land use types. The system wide calculated wastewater flows were also balanced to match the flows recorded at the wastewater treatment plant. Table 3.2 characterizes the existing wastewater flows, by land use classification.

Generally, non-residential land uses return the majority of the water demand to the wastewater collection system. These unit factors were estimated at 85 percent return to sewer ratios. The same concept can be applied to single family and multi-family residential lots, which are typically estimated at 50 percent and 75 percent return to sewer ratio respectively. Single family residential lots have the lowest return to sewer ratio due to water lost for landscape irrigation. Lastly, unit factors were adjusted to 100 percent occupancy, and rounded. This analysis generally indicates that existing non-residential land uses have higher flow generation factors than that of residential land uses.

For projecting future flows, The City of Beaumont has adopted using the design flow criteria used by the adjacent Eastern Municipal Water District (EMWD). **Table 3.3** documents the EMWD factors, and also lists some minor adjustments applied by City staff for the purpose of this wastewater master plan. Thus, the wastewater unit factors listed on **Table 3.3** were used for projecting buildout flows in this master plan.

3.2.3 Peaking Factors

The wastewater collection system is evaluated based on its ability to convey peak wastewater flows. Peaking factors represent the increase in wastewater flows experienced above the average dry weather flows (ADWF). The various peaking conditions are numerical values obtained from a review of historical data and, at times, tempered by engineering judgment.

The peaking conditions that are significant to hydraulic analysis of the wastewater collection system include:

- Peak Dry Weather Flows (PDWF)
- Peak Wet Weather Flows (PWWF)

Table 3.2 Existing Wastewater Flows by Land Use Classification

Wastewater Master Plan

City of Beaumont

		2017 Average Demand Un				2017 /	Average Dry	erage Dry Weather Sewer Flows			
Land Use Classification	Existing Development	2017 Water Co	onsumption ¹	Determine	Dry Weather	Sewer Flows	Sewer	Flows at 100% (Dccupancy	Sewer Flow Balance	
		Annual Consumption	Unadjusted Water Unit Factors	Return to Sewer Ratio	Unadjusted Sewer Unit Factor	Balance using Recommended Unit Factor	Vacancy Rate ^{2,3}		ows at 100% pancy	Unit Factor	Balance Using Unit Factor
	(acre)	(gpd)	(gpd/acre)		(gpd/acre)	(gpd)		(gpd/acre)	(gpd)	(gpd/acre)	(gpd)
Residential											
Single Family Residential ⁴	2,568	5,432,317	2,116	0.50	1,064	2,732,455	10.0%	1,171	3,005,701	1,200	3,081,236
Multi-Family Residential	134	315,111	2,358	0.70	1,660	221,838	10.0%	1,826	244,022	1,850	247,193
Subtotal Residential	2,701	5,747,428				2,954,294			3,249,723		3,328,429
Non-Residential											
Commercial and Services ⁵	389	413,338	1,062	0.85	903	351,337	2.0%	921	358,364	925	360,038
Public Facilities ⁶	293	286,703	979	0.85	832	243,698	2.0%	849	248,572	850	248,974
Industrial ⁷	223	130,310	585	0.85	497	110,764	0.2%	498	110,985	500	111,360
Subtotal Non-Residential	905	830,351				705,798			717,921		720,372
Totals				2017 A	verage Dry Weath	er Flows					
	3,606	6,577,779		Estim	ated Sewer Flows	3,660,092			3,967,644		4,048,800
AKEL				Measu	red WWTP Flows ⁸	3,662,673					

Notes:

1. Water consumption extracted from water billing data received from City staff November 21, 2019.

2. Residential vacancy rate extracted from California Department of Finance E-5 Population estimates.

3. Office Commercial and Industrial vacancy rates extracted from "Beaumont Economic Development Strategic Plan". For planning purposes, Business Commercial vacancy rate assumed equal to Office Commercial.

4. "Single Family Residential" contains development and consumption for "Mobile Homes and Trailer Parks".

5. "Commercial And Services" contains development and consumption for "General Office".

6. "Public Facilities" contains development and consumption for "Educational Facilities"

7. Industrial consumption includes Perricone Juice (83,796 gpd), Dura Plastics Products (22,364 gpd), and Rudolph Food Company (3,728 gpd).

8. Measured WWTP flows provided by City staff February 18, 2020.

Table 3.3 Wastewater Unit Factors for Projecting Future Flows

Wastewater Master Plan

City of Beaumont

Land Use ¹ Classification	Density ¹	Eastern I	Municipal Water I	Wastewater Unit Flow Factors (Used for projecting future flows in 2021 Wastewater Master Plan)	
		Land Use Classification	Density		Unit Factor (gpd/net acre)
Residential					
Single Family Residential ³	0-4 du/acre	Low Density	2 du/acre	611	
			4.5 du/acre	1,058	1,396
		Mobile Home Park	10 du/acre	1,528	
Multi-Family Residential	0-24 du/acre	Medium High Density	6 du/acre	1,269	3 600
			17 du/acre	2,609	2,609
Rural Residential	0-2 du/acre	Estate Density	0.5 du/acre	188	611
Non-Residential					
Community Commercial	FAR up to 2.0	Commercial Retail	5 edu/acre	1,175	1 175
		Mixed Use Policy Area	5 edu/acre	1,175	1,175
General Commercial	FAR up to 0.3	Commercial Office	5 edu/acre	1,175	1,175
Industrial	FAR up to 0.7	Business Park/Light Industrial	5 edu/acre	1,175	
		Business Park/Light Industrial/Warehouse	1.25 edu/acre	294	1,763
		Heavy Industrial	7.5 edu/acre	1,763	
Public Facilities	FAR up to 1.0	Public Facility	5 edu/acre	1,175	1,175
_A K E L		Hospital	5 edu/acre	1,175	1,1/3

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8/20/2021

Notes:

1. Land Use classification and densities extracted from City of Beaumont General Plan.

2. Land use classifications, density and unit factors based on Eastern Municipal Water District 2015 Wastewater Collection System Master Plan.

3. Single Family Residential Factor includes a 10% contingency for potential Accessory Dwelling Unit construction per City staff direction via teleconference on October 15, 2020.

PRELIMINARY

Typical values for peaking factors of 2.0 or less are generally used to estimate peak flows at treatment facilities where flow fluctuations are smoothed out during the time of travel in the wastewater collection system, while peaking factors between 3.0 and 4.0 are used to estimate peak flows in the smaller upstream areas of the system where low flow conditions are prone to greater fluctuations.

This master plan used 24-hour diurnal patterns for weekday and weekend dry weather flows tributary to each flow monitor, as shown on Figure 3.1, Figure 3.2, Figure 3.3 and Figure 3.4.

3.3 WET WEATHER FLOW CRITERIA

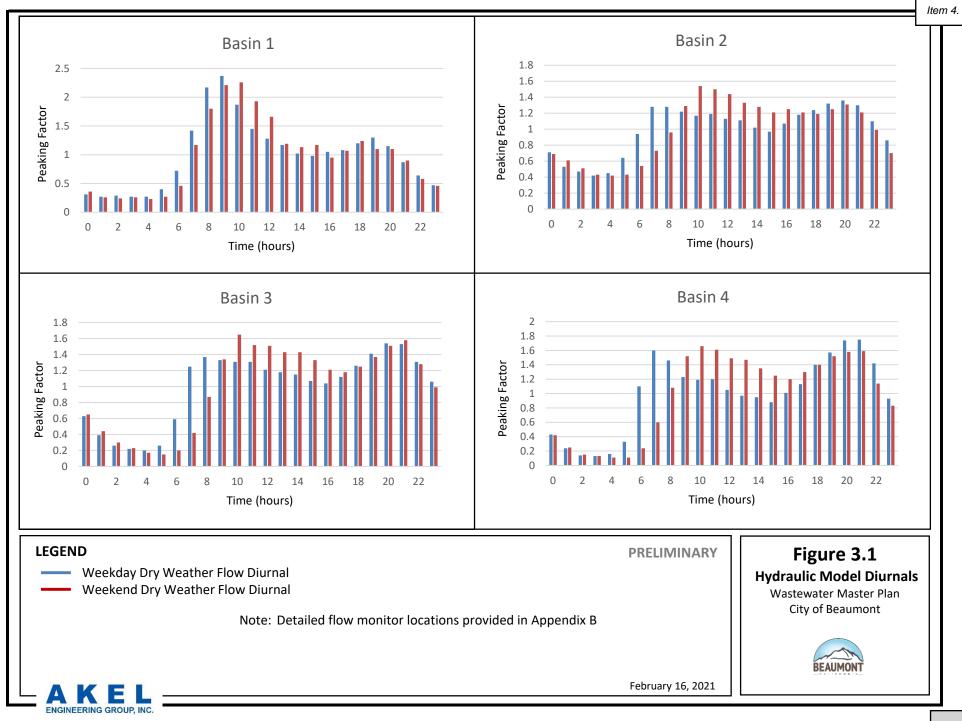
The wet weather flow criteria accounts for the infiltration and inflows (I&I) that seep into the City's wastewater collection system during storm events.

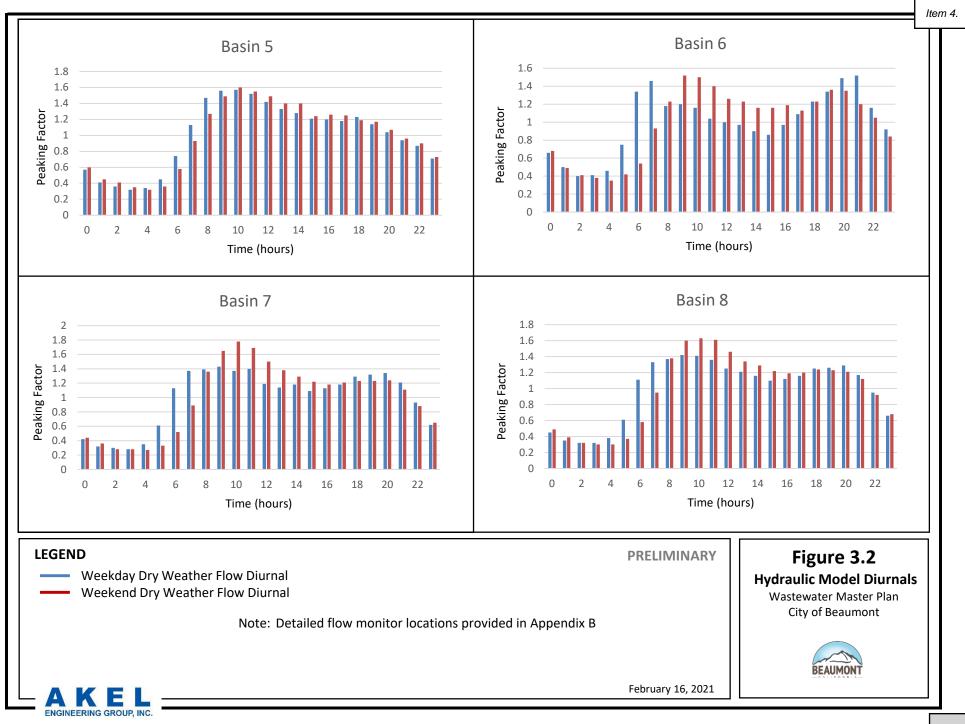
3.3.1 Infiltration and Inflow

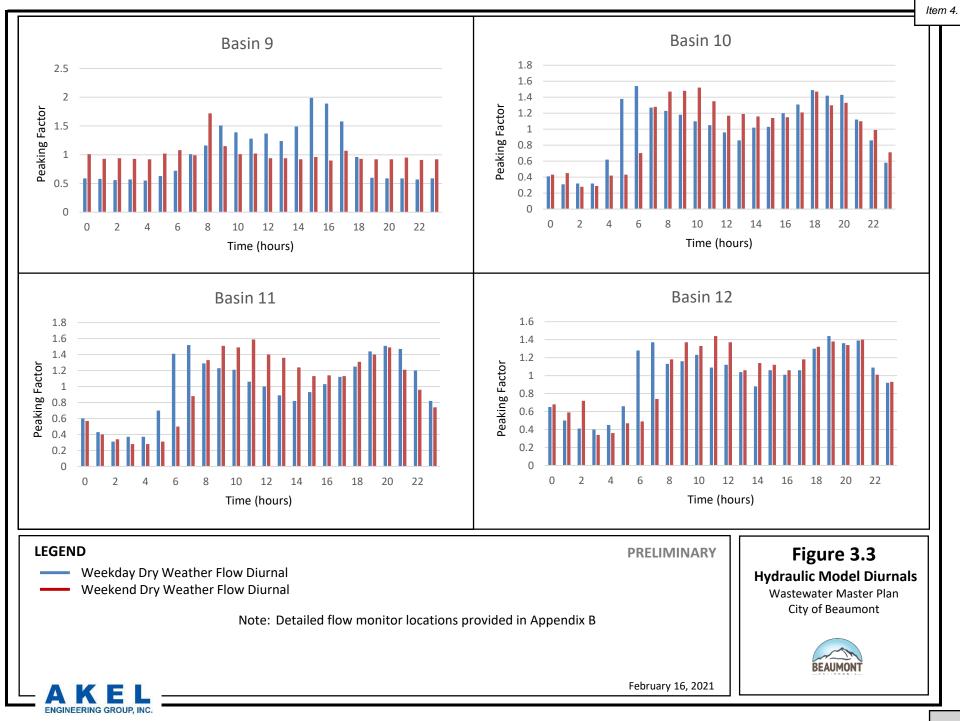
Groundwater infiltration and inflow is associated with extraneous water entering the wastewater collection system through defects in pipelines and manholes. Infiltration occurs when groundwater rises or the soil is saturated due to seasonal factors such as a storm event which causes an increase in flows in the wastewater collection system. The ground water will enter the wastewater collection system through cracks in the pipes or deteriorating manholes. Inflow occurs when surface water enters the wastewater collection system from storm drain cross connections, manhole covers, or roof/footing drains. **Figure 3.5** was developed by King County, Washington and was included in this chapter to illustrate the typical causes of infiltration and inflow.

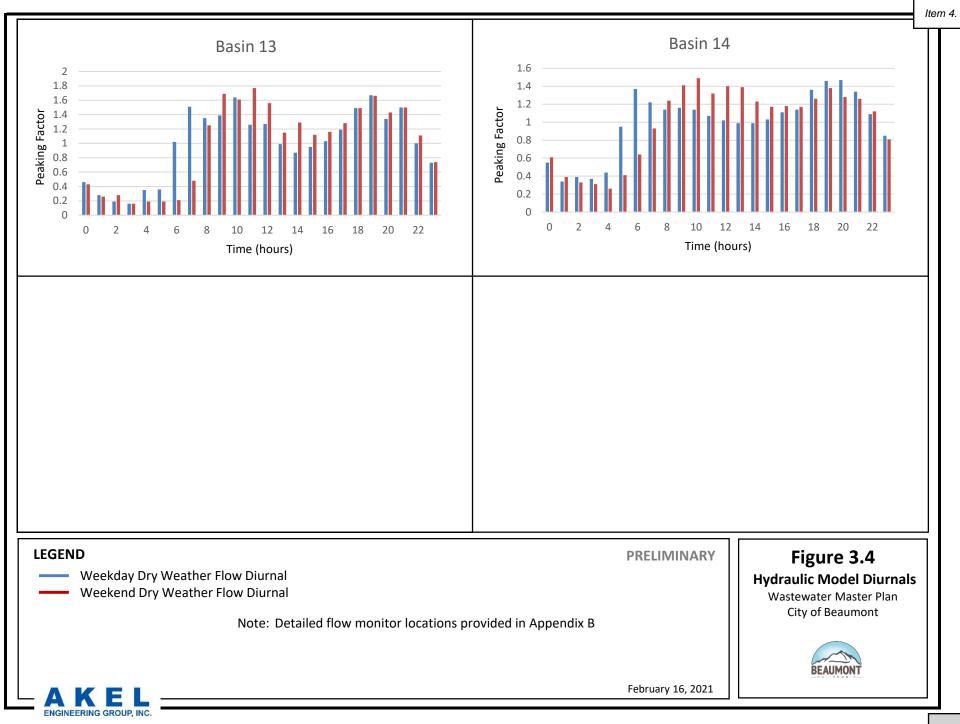
There are several accepted methodologies for estimating infiltration and inflows (I&I). These include:

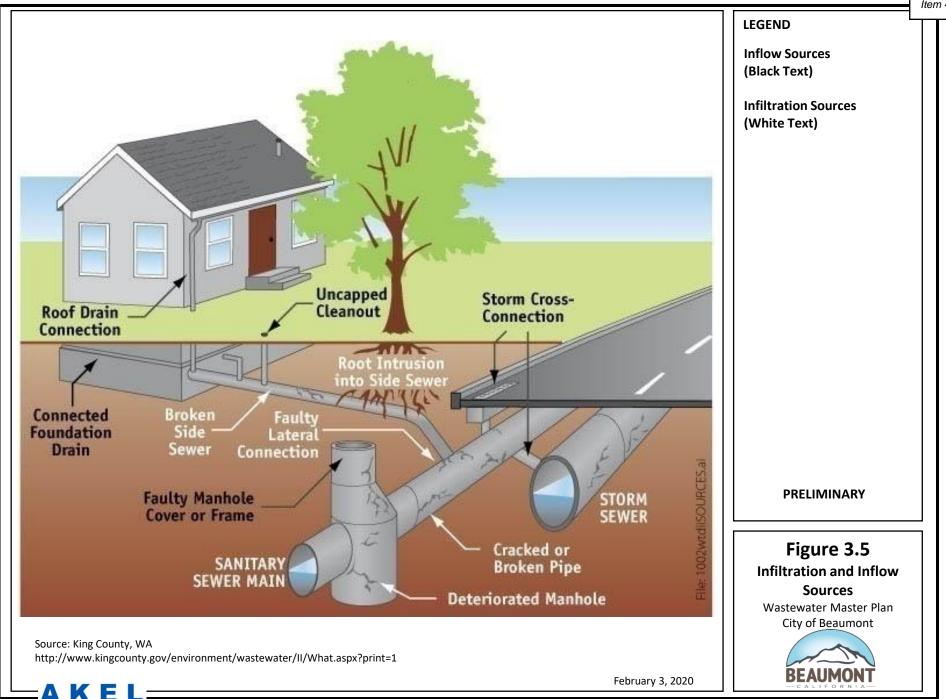
- **Methodology 1.** Based on Acreages. In this methodology, factors that may range between 400 and 1,500 gallons per day (gpd) or more are applied to acreages for estimating the I&I component.
- **Methodology 2.** Based on Linear Feet of Pipe. In this methodology, factors that may range between 12 and 30 or more gallons per day per inch diameter per 100 linear feet (gpd/inch diameter/100LF) are applied to linear feet of gravity sewers.
- **Methodology 3**. Based on a percentage of Average Dry Weather Flows. In this methodology, Infiltration and Inflows (I&I) are calculated based on a percentage of the average dry weather flow.
- **Methodology 4**. Based on flow monitoring data. In this methodology, infiltration and inflows are determined by analyzing flow monitoring data of current and past flow monitoring efforts.











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This capacity analysis and master plan based the infiltration and inflow on specific flow monitoring data from the Villalobos and Associates (V&A) 2020 Flow Monitoring Program (Appendix A). Thus, the infiltration and inflows are reasonable and reflect the actual behavior of the wastewater collection system.

3.3.2 Wastewater Collection System Flow Monitoring

In 2020, V&A's services were used for a temporary flow monitoring program to capture 14 sites during dry and wet weather flows, which are summarized on Figure 3.6.

There were six rain gauges used for the wet weather analysis. The rainfall historical data was then determined by weighted average of those six rain gauges. The six rain gauges were located in the City of Beaumont as shown in Figure 3.6. The flow monitoring and rain data were used in this analysis to calibrate the computer hydraulic model to average dry weather flow and wet weather flow conditions.

3.3.3 10-Year 24-Hour Design Storm

A synthetic design storm is typically used to evaluate the sewer collection system's response during wet weather flow conditions. The design storm information was collected from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Volume 6 (Table 3.4).

- **10-Year Frequency.** Industry standards include design storms that range between 5-year and 20-year events. Based on current regulatory trends, a 10-year storm event was chosen for the City to evaluate the capacity adequacy of the wastewater collection system.
- **24-Hour Duration.** Peak flows from a storm event are usually cause by brief intense rains, that can happen as part of an individual event or as a portion of a larger storm. The 24-hour storm duration is longer than needed to determine peak flow but aids in identifying infiltration and inflows a wastewater collection system may experience during a storm event.
- Balanced Rainfall Centered Distribution. The National Resources Conservation Service, previously known as the Soil Conservation Service, has developed rainfall distributions for wide geographic regions based on traditional Depth-Duration-Frequency (DDF) rainfall data. In this methodology, the highest rainfall intensity is placed at the center of the storm. Incrementally lower intensities are placed on alternating sides of the peak.

Thus, the NOAA Atlas 14 Depth Duration Frequency (DDF), 10-year 24-hour (10yr-24hr) design storm, with a balanced rainfall distribution, was used to evaluate the capacity adequacy of the City's wastewater collection system during wet weather flow conditions.

The selected 10-year 24-hour design storm was further compared to historical storm events used for the calibration process, between February 2020 and April 2020, as shown on Table 3.5. The table lists the total rainfall volume, duration, peak hour intensity, and total rainfall depth (if available) for each storm event.

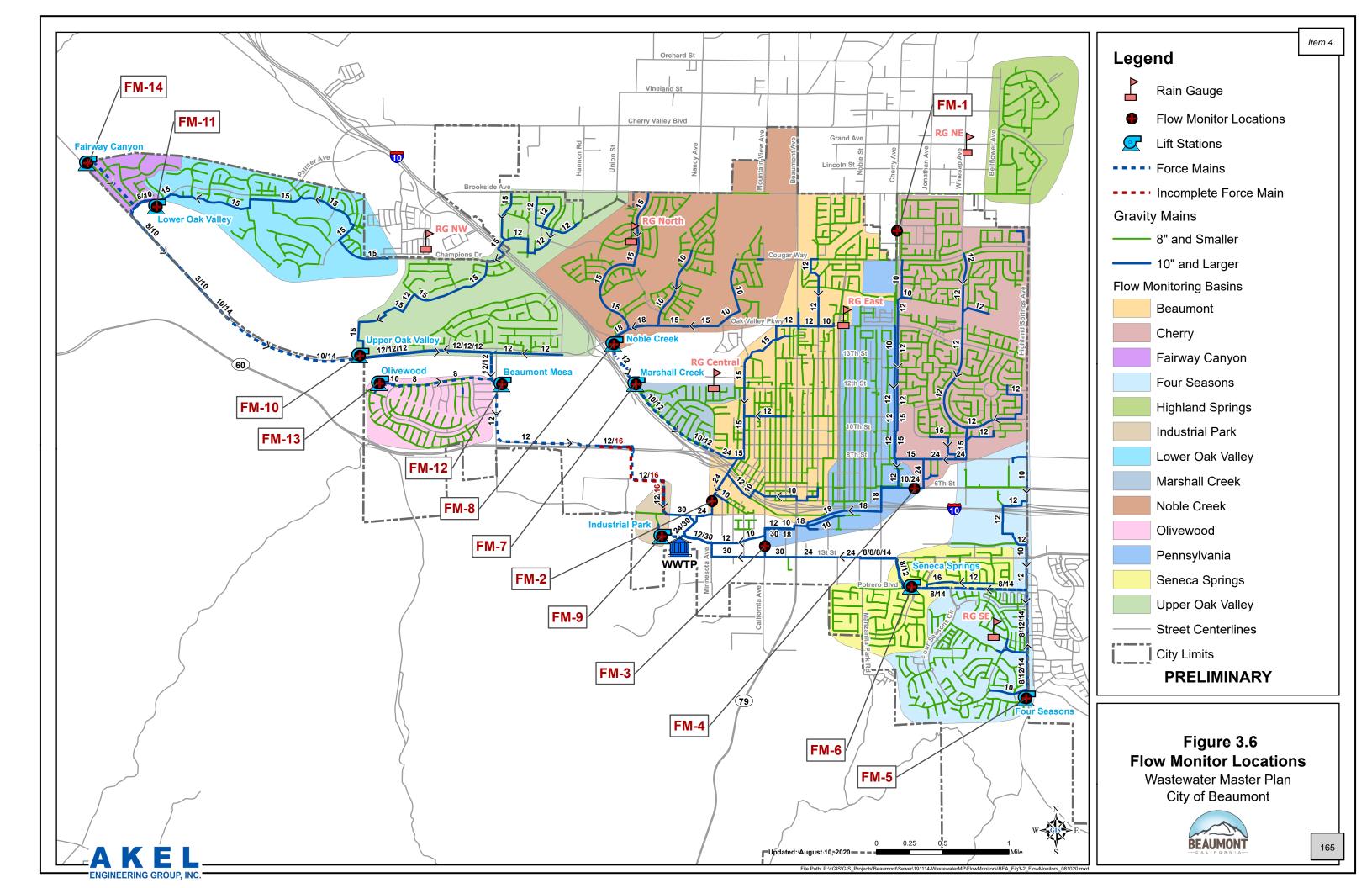


Table 3.4 Precipitation Depth-Duration-Frequency

Wastewater Master Plan

City of Beaumont

Duration	1-Y	'ear	2-Y	'ear	5-Year		5-Year 10-Year		25-	Year	100	-Year
Duration	(in)	(in/hr)	(in)	(in/hr)	(in)	(in/hr)	(in)	(in/hr)	(in)	(in/hr)	(in)	(in/hr)
5-min	0.12	1.48	0.16	1.94	0.22	2.66	0.28	3.32	0.37	4.38	0.53	6.41
10-min	0.18	1.06	0.23	1.40	0.32	1.91	0.40	2.39	0.52	3.14	0.77	4.59
15-min	0.21	0.85	0.28	1.12	0.39	1.54	0.48	1.92	0.63	2.53	0.93	3.70
30-min	0.31	0.62	0.41	0.81	0.56	1.11	0.70	1.39	0.92	1.83	1.34	2.68
1-hr	0.45	0.45	0.60	0.60	0.82	0.82	1.02	1.02	1.34	1.34	1.96	1.96
2-hr	0.65	0.32	0.81	0.40	1.05	0.53	1.27	0.64	1.62	0.81	2.27	1.14
3-hr	0.79	0.26	0.97	0.32	1.24	0.41	1.48	0.49	1.85	0.62	2.54	0.85
6-hr	1.15	0.19	1.40	0.23	1.76	0.29	2.07	0.35	2.54	0.42	3.38	0.56
12-hr	1.57	0.13	1.96	0.16	2.48	0.21	2.92	0.24	3.55	0.30	4.58	0.38
24-hr	2.11	0.09	2.73	0.11	3.55	0.15	4.21	0.18	5.12	0.21	6.52	0.27
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Note:

PRELIMINARY

Source: Noaa Atlas 14 For City Of Beaumont Volume 6 Version 2.

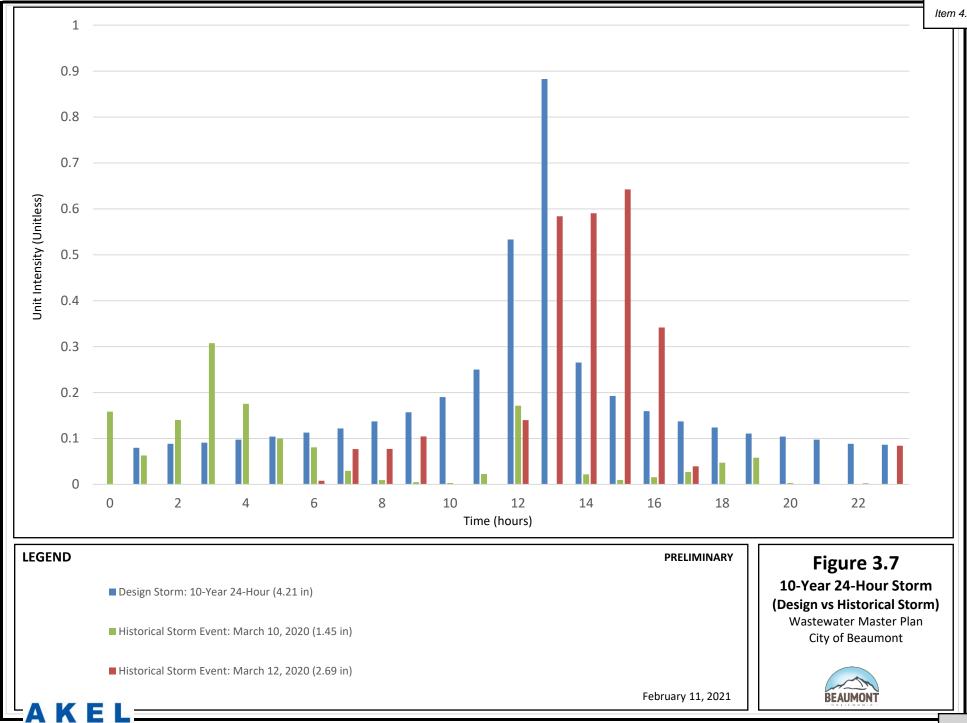
Table 3.5 Storm Events Analysis

Wastewater Master Plan City of Beaumont

PRELIMINARY

	Estimated Return	The second s	Event Volume and ensity
Storm Event	Interval	Volume	Peak Intensity
		(in)	(in//hr)
March 10 - March 11, 2020	2-Year 6-Hour	1.45	0.31
March 12 - March 13, 2020	5-Year 12-Hour	2.69	0.64
Design Storm	10-Year 24-Hour	4.21	0.88
ENGINEERING GROUP, INC.			2/11/2021

Figure 3.7 is intended to show the diurnal comparison between the design storm and the two storm events experienced during March of 2020. The comparison indicates that, based on the balanced centered hyetograph, the design storm's peak hour value is at 0.89 inches per hour (in/hr), while the March 10th and 12nd storms peak values are respectively 0.31 and 0.64 in/hr respectively. This comparison illustrates the more conservative nature of the design storm.



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City of Beaumont

CHAPTER 4 - EXISTING WASTEWATER COLLECTION FACILITIES

This chapter provides a description of the City's existing wastewater collection system facilities including gravity trunks, force mains, lift stations, and sewer collection basins. The chapter also includes a brief description of the City's WWTP, which treats and disposes of the wastewater for the City.

4.1 WASTEWATER COLLECTION SYSTEM OVERVIEW

The City provides wastewater collection services to approximately 15,671 residential, commercial, public facilities and institutional accounts. The City's existing wastewater collection system consists of approximately 196 miles of gravity mains and force mains, and 10 lift stations that convey flows to the City's WWTP as summarized on Table 4.1.

The City's existing wastewater collection system is shown in **Figure 4.1**, which displays the existing system by pipe size. This figure provides a general color coding for the collection mains, as well as labeling the existing lift stations.

4.2 WASTEWATER COLLECTION BASINS AND TRUNKS

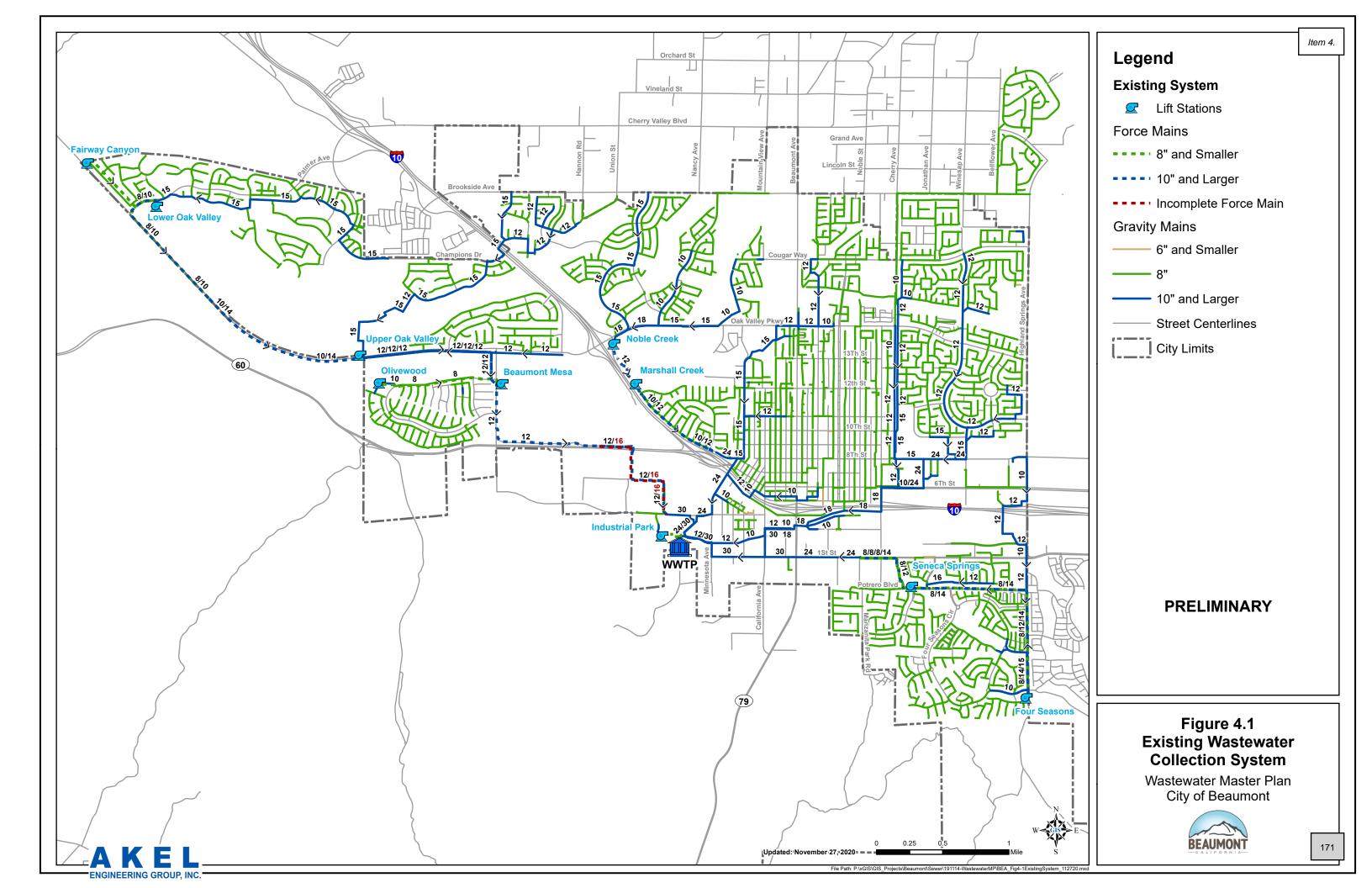
Based on the varying topography and numerous lift stations, the sewer system is divided into multiple collection basins that collect flows from smaller developments and route that flow to larger sewer trunk lines. These basins are based on the areas tributary to the flow monitors installed as part of the 2020 V&A flow monitoring program as discussed in a previous chapter. These collection basins are shown on Figure 4.2 and summarized in the following section.

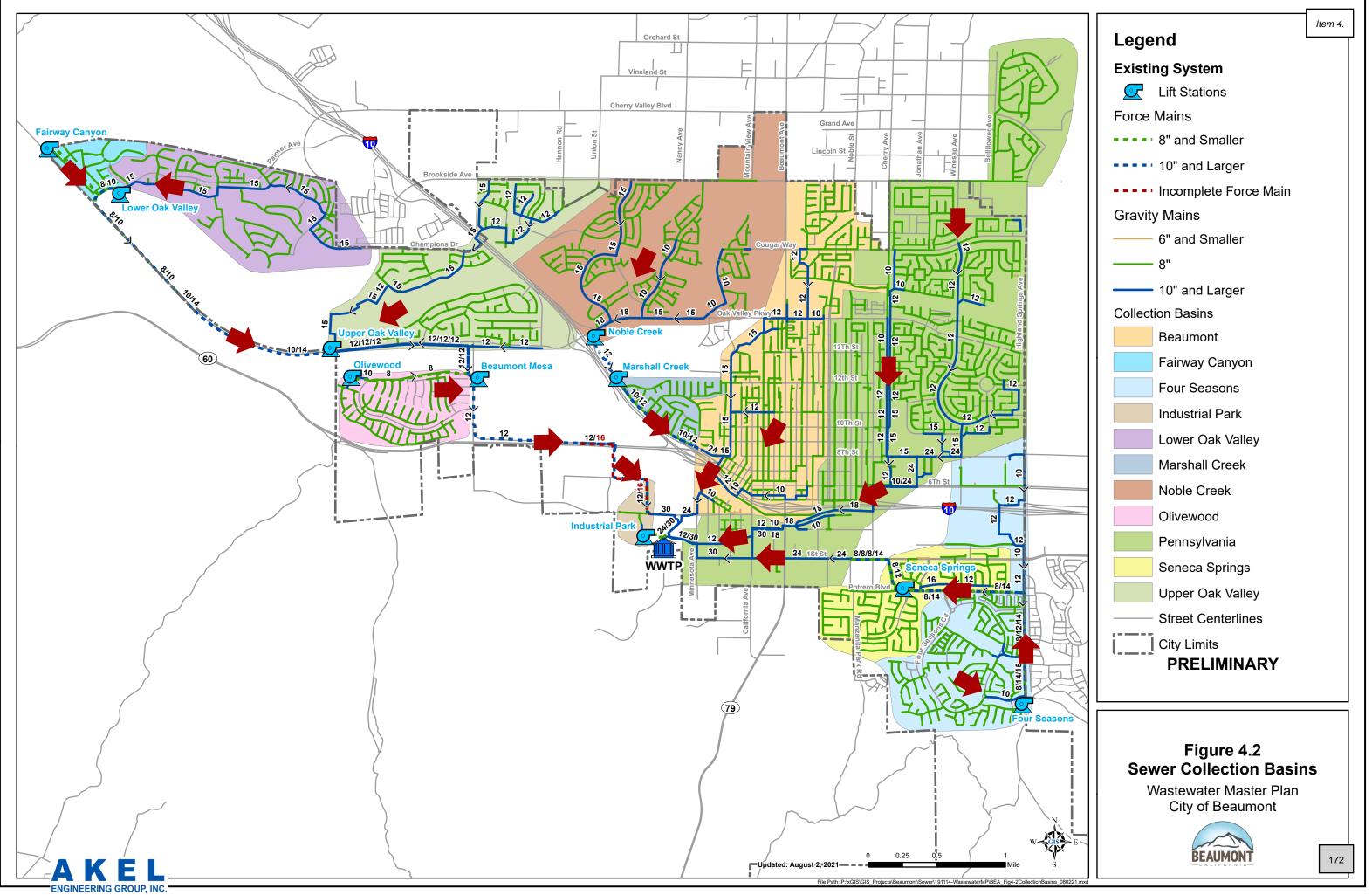
4.2.1 Fairway Canyon Collection Basin

The Fairway Canyon collection basin encompasses approximately 108 acres in the northwest portion of the City of Beaumont service area, north of Palmer Avenue and west of Armour Avenue. Flows are collected in an 8-inch gravity pipeline along Crenshaw Street before entering the Fairway Canyon Lift Station. This collection basin is discharged to the Lower Oak Valley Lift Station at Palmer Avenue via an 8-inch force main.

4.2.2 Lower Oak Valley Collection Basin

The Lower Oak Valley collection basin encompasses approximately 645 acres in the northwest portion of the City of Beaumont service area, generally north of Oak Valley Parkway and west of Plantation Drive. Flows are collected in a 15-inch pipeline along Champions Drive to Palmer Avenue before being conveyed to the Lower Oak Valley Lift Station. This collection basin also includes flows tributary to the Fairway Canyon Lift Station. This collection basin is discharged to the Upper Oak Valley Lift Station at Oak Valley Parkway via dual 10-inch and 14-inch force mains.





Item 4.

Table 4.1 Existing Wastewater Pipeline Inventory

Wastewater Master Plan

City of Beaumont

City of Beau			PRELIMINARY
Pipeline Diameter	Leng	gth	Percent Contribution
(in)	(ft)	(mi)	% Total
Gravity Mains			
4	883	0.2	0.1%
6	2,612	0.5	0.3%
8	759,884	143.9	73.4%
10	28,526	5.4	2.8%
12	59,788	11.3	5.8%
15	48,929	9.3	4.7%
16	1,898	0.4	0.2%
18	7,782	1.5	0.8%
24	13,012	2.5	1.3%
30	8,890	1.7	0.9%
48	222	0.04	0.02%
Unknown	226	0.04	0.02%
Subtotal - Gravity Mains	932,653	176.6	90.1%
Force Mains			
6	1,060	0.2	0.1%
8	33,208	6.3	3.2%
10	17,254	3.3	1.7%
12	31,787	6.0	3.1%
14	18,776	3.6	1.8%
Subtotal - Force Mains	102,086	19.3	9.9%
Total Sewer Pipe			
Total	1,034,739	196.0	100.0%
ENGINEERING GROUP, INC.			2/3/2020

Note:

Source: Sewer System GIS provided by City staff on November 20, 2019.

4.2.3 Upper Oak Valley Collection Basin

The Upper Oak Valley collection basin encompasses approximately 930 acres in the north portion of City of Beaumont service area and is generally divided into two sections. The first section collects flows north of Oak Valley Parkway west of Desert Lawn Drive, which are ultimately conveyed by a 12-inch gravity main on Oak Valley Parkway. The second section consists of two separate 12-inch and 15-inch gravity main along Deodar Road and Monte Verde Drive collects flows before combining into a 15-inch gravity main under Interstate-10 which are then discharged to an existing 15-inch gravity main on Bay Hill Drive. These flows are eventually conveyed to Upper Oak Valley Lift Station on Oak Valley Parkway. This collection basin also includes flows tributary to the Fairway Canyon Lift Station and Lower Oak Valley Lift Station. This collection basin is discharged to the Beaumont Mesa Lift Station at Potrero Boulevard via dual 12-inch force mains.

4.2.4 Olivewood Collection Basin

The Olivewood collection basin encompasses approximately 313 acres in the west portion of the City of Beaumont service area, generally south of Oak Valley Parkway and west of Potrero Boulevard. Flows are collected by an 8-inch gravity mains along Castello Lane and Artisan Place before entering Olivewood Lift Station. This collection basin is discharged to the Beaumont Mesa Lift Station at Potrero Boulevard via 8-inch force main.

4.2.5 Noble Creek Collection Basin

The Noble Creek collection basin encompasses approximately 1,210 acres in the north portion of the City of Beaumont service area, south of Brookside Avenue north of Oak Valley Parkway between Interstate-10 and Beaumont Avenue. Two separate 10-inch and 15-inch gravity mains along Oak View Drive and Golf Club Drive respectively collects flows before combining into 18-inch gravity main on Oak Valley Parkway. These flows are eventually conveyed to Noble Creek Lift Station. This collection basin is discharged to the Marshall Creek Lift Station at Ring Ranch Road via 12-inch force main.

4.2.6 Marshall Creek Collection Basin

The Marshall Creek collection basin encompasses approximately 136 acres in the central portion of the City of Beaumont service area, generally east of Interstate 10, west of Claiborne Avenue and south of Florence Street. Flows are collected by 8-inch gravity mains along Ring Ranch Road before entering Marshall Creek Lift Station. This collection basin also includes flows tributary to Noble Creek Lift Station. This collection basin is discharged to the existing wastewater manhole at 8th Street via dual 10-inch and 12-inch force mains.

4.2.7 Industrial Park Collection Basin

The Industrial Park collection basin encompasses approximately 63 acres in the central portion of the City of Beaumont service area, south of Highway 60 between Distribution Way and Minnesota Avenue. Two separate 8-inch gravity mains on Nicholas Road and 4th Street collect flows before

combining into a 8-inch gravity main on Risco Circle. These flows are eventually conveyed to the Industrial Park Lift Station. This collection basin is discharged to the Beaumont Wastewater Treatment Plant at 4th Street via 6-inch force main.

4.2.8 Beaumont Collection Basin

The Beaumont collection basin encompasses approximately 1,155 acres in the north portion of the City of Beaumont service area, generally west of Palm Avenue, north of 4th Street and south of Brookside Avenue. Flows are collected by 12-inch and 15-inch pipelines along Luis Estrada Road and Elm Avenue before entering an existing 24-inch gravity main on Veile Avenue. This collection basin also includes flows tributary to Marshall Creek Lift Station.

4.2.9 Pennsylvania Collection Basin

The Pennsylvania collection basin encompasses approximately 1,810 acres in the north portion of the City of Beaumont service area, generally bound by Brookside Avenue and 1st Street from north to south and Palm Avenue to Highland Springs Avenue from west to east and divided into two sections. The first section collect flows by existing 12-inch gravity pipelines along Starlight Avenue. The second sections collected flows by existing 8-inch, 10-inch, and 15-inch gravity pipelines along American Avenue. This collection basin also includes flows from Highland Springs collection basin.

4.2.10 Highland Springs Collection Basin

The Highland Springs collection basin encompasses approximately 418 acres in the northeast portion of the City of Beaumont service area, generally west of Bellflower Avenue and north of Brookside Avenue. Existing 8-inch gravity pipelines collect flow along Brookside Avenue before being conveyed to existing 8-inch gravity pipelines along Cherry Avenue.

4.2.11 Seneca Springs Collection Basin

The Seneca Springs collection basin encompasses approximately 417 acres in the south portion of the City of Beaumont service area, generally west of Highland Springs Avenue, east of Beaumont Avenue, and south of 2nd Street. Two separate 8-inch and 16-inch gravity mains along Potrero Boulevard collects flows before combining into Seneca Springs Lift Station. This collection basin is discharged to the existing wastewater manhole at 1st Street and Michigan Avenue via dual 8-inch force mains.

4.2.12 Four Seasons Collection Basin

The Four Seasons collection basin encompasses approximately 869 acres in the southeast portion of the City of Beaumont service area, generally west of Highland Springs Avenue and south of 8th Street. Existing 10-inch, 12-inch and 15-inch gravity pipelines along Highland Springs Avenue collects flows before conveying into Four Seasons Lift Station. This collection basin is discharged to the existing wastewater manhole at 1st Street and Michigan Avenue via dual 8-inch and 14-inch force mains.

4.3 LIFT STATIONS

When routing flows by gravity is not possible due to adverse grades, lift stations are used to pump flows. The City currently maintains ten lift stations in the wastewater collection system, summarized on Table 4.2, and shown on Figure 4.2. Additionally, a flow diagram summarizing the connectivity of the existing lift stations is shown on Figure 4.3.

- Fairway Canyon Lift Station. The lift station is located at the northern end of Creenshaw Street. The lift station includes 2 canned pumps that are each rated at 400 gpm. The pumps discharges into an 8-inch force main that conveys flows southeast toward Lower Oak Valley Lift Station.
- Lower Oak Valley Lift Station. The lift station is located on Palmer Avenue, southwest of Morris Street and was built in 2005. The lift station includes 2 duty pumps and 1 standby pump that are rated at 650 gpm and 400 gpm respectively. The pump discharges into a parallel 8-inch and 10-inch force main that conveys flows southeast along Oak Valley Parkway toward Upper Oak Valley Lift Station.
- Upper Oak Valley Lift Station. The lift station is located on Oak Valley Parkway, west of Apron Lane and was built in 2004. The lift station includes 2 duty pumps and 1 standby pump that are rated at 1,350 gpm and 2,300 gpm respectively. The pump discharges into a parallel 12-inch force main that conveys flows north toward Beaumont Mesa Lift Station.
- Olivewood Lift Station. This lift station is located approximately 675 feet northwest of the intersection of Artisan Place and Castello Lane. The lift station includes 2 duty pumps that are both rated at 310 gpm. The pump discharges into an 8-inch force main that conveys flows east along Castello Lane toward Beaumont Mesa Lift Station.
- Beaumont Mesa Lift Station. This lift station is located southeast corner of Castello Lane and Potrero Boulevard, constructed prior 2006 and was rehabilitated in 2020. While this lift station was originally designed to include four pumps, two at 3,500 gpm and two at 1,500 gpm, the current configuration includes 2 duty pumps that are both rated at 1,797 gpm. The pump discharges into a 12-inch force mains that convey flows southeast toward 4th Street.
- Noble Creek Lift Station. The lift station is located approximately 200 feet south of Oak Valley Parkway and was built in 2001. The lift station includes 2 duty pumps that are both rated at 1,865 gpm. The pump discharges into a 12-inch force main that conveys flows southeast along Interstate 10 toward Marshall Creek Lift Station.
- Marshall Creek Lift Station. The lift station is located at the northern end of Ring Ranch Road and was built in 2001. The lift station includes 2 duty pumps that are both rated at 1,150 gpm. The pump discharges into a 10-inch and 12-inch force main that conveys flows southeast along Ring Ranch Road toward Veile Avenue.

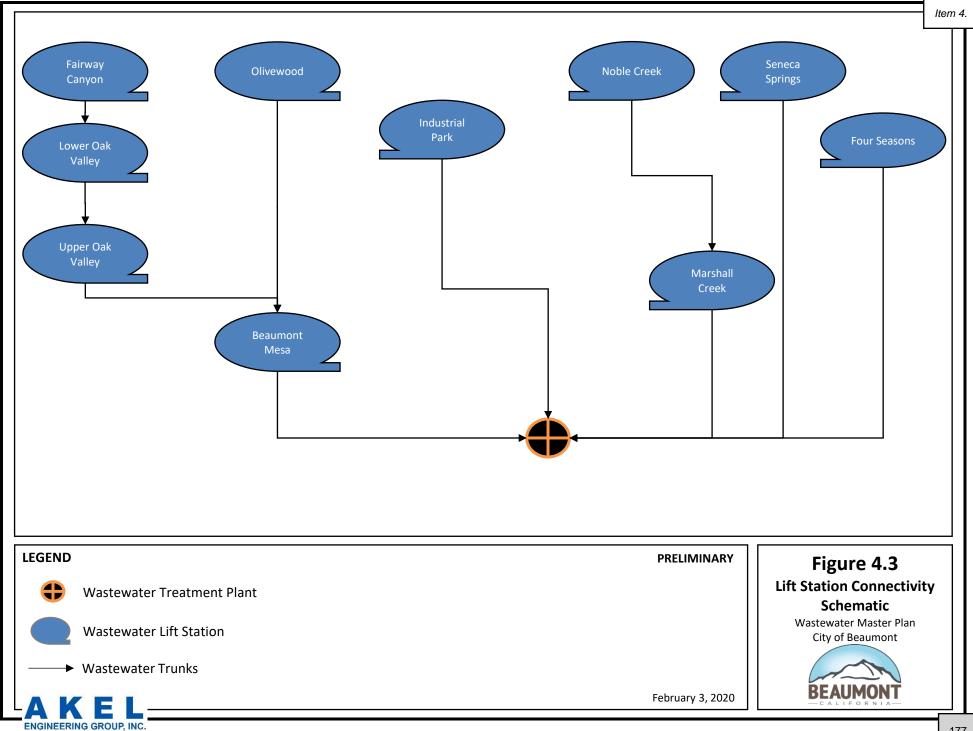


Table 4.2 Lift Station Inventory

Wastewater Master Plan

City of Beaumont

Lift Station I	Lift Station Information Pumps ¹						Pump C	ontrols ²			Wet Well Dimensions ²			
No.	Location	Quantity	Full Capacity	Firm Capacity	Current Capacity	High Level	Low Level					Area	Depth	Volum
			(gpm)	(gpm)	(gpm)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft ²)	(ft)	(gal)
Beaumont Mesa	12940 Potrero Blvd.	2 @ 1,797 gpm	3,594	1,797	3,594	21.50	2.00	9.50	7.00	12.00	7.00	697.4	21.0	109,59
Fairway Canyon ³ (Little Lower Oak Valley)	34003 Crenshaw St.	2 @ 400 gpm	800	400	800	8.33	2.92	6.61	3.58	7.83	6.61	50.3	11.50	2,022
Lower Oak Valley	11246 Palmer Ave.	2 @ 650 gpm 1 @ 400 gpm	1,700	1,050	1,700	7.50	1.50	4.00	2.00	7.00	2.00	212.7	16.5	26,252
Marshall Creek	990 Ring Ranch Rd.	2 @ 1,150 gpm	2,300	1,150	2,300	10.75	8.08	9.75	8.25	10.50	8.25	223.9	18.0	30,149
Noble Creek	1899 W Oak Valley Pkwy.	2 @ 1,865 gpm	3,730	1,865	3,730	6.00	1.50	4.25	2.00	5.75	2.00	180.8	14.5	19,606
Seneca Springs	1390 Potrero Blvd.	3 @ 450 gpm	1,350	900	1,125	6.00	1.25	4.50	2.50	5.50	2.50	184.7	31.5	43,519
Upper Oak Valley	35980 Oak Valley Pkwy.	2 @ 1,350 gpm 1 @ 2,300 gpm	5,000	2,700	5,000	7.50	1.00	4.50	2.50	7.00	2.50	345.7	19.5	51,283
Four Seasons	1075 S Highland Springs Ave.	2 @ 1,675 gpm 1 @ 365 gpm	3,715	1,740	1,675	9.50	1.50	4.75	2.25	9.00	4.75	249.6	22.0	41,078
Industrial Park ⁴ (Coopers Creek)	715 W 4th St.	1 @ 112 gpm 1 @ 150 gpm	262	112	262	6.00	1.00	5.75	2.00	5.75	2.00	58.7	16.0	7,022
Olivewood	North of Artisan Pl.	2 @ 310gpm	620	310	620	6.25	2.00	5.25	3.00	5.75	3.00	50.3	19.5	7,332
AKEL														5/26/202

Notes:

1. Source: Pumps information provided by City staff on December 13, 2019.

2. Unless noted otherwise, pump controls and wet well dimensions provided by City staff on March 04, 2020.

3. Fairway Canyon wet well dimensions provided by City staff on April 28, 2021.

4. Industrial Park pump information provided by City Staff on May 26, 2020.

PRELIMINARY

- Industrial Park (Coopers Creek) Lift Station. The lift station is located at the end of Risco Circle southwest of Beaumont WWTP and was built in 2003. The lift station includes 2 duty pumps that are rated at 112 gpm and 150 gpm. The pump discharges into a 6-inch force main that conveys flows east toward Beaumont WWTP.
- Seneca Springs Lift Station. The lift station is located on Potrero Boulevard between Berkshire Avenue and Seneca Springs Parkway, and was built in 2005. The lift station includes 3 duty pumps that are both rated at 450 gpm. The pump discharges into a parallel 8-inch force main that conveys flows west toward 24-inch gravity pipeline on 1st Street.
- Four Seasons Lift Station. The lift station is located on Highland Springs Avenue approximately 300 ft south of Breckenridge Avenue Berkshire Avenue, and was built in 2005. The lift station includes 2 duty pumps and 1 standby pump that are rated at 1,675 gpm and 365 gpm respectively. The pump discharges into a 8-inch and 14-inch force main that conveys flows west toward existing 24-inch gravity pipeline on 1st Street.

Table 4.2 lists each lift station with relevant information obtained from the City's records including:lift station number, location, wet well dimensions, and number of pumps and respective capacities.The lift stations are operated to turn "on" or "off" based on the levels in their wet wells.

4.4 BEAUMONT WASTEWATER TREATMENT PLANT

Beaumont Wastewater Treatment Plant (WWTP) treats on average 3.66 mgd of sewer flows, collected flows from 11 different tributary basins including: Fairway Canyon, Lower Oak Valley, Upper Oak Valley, Olivewood, Noble Creek, Marshall Creek, Industrial Park, Pennsylvania, Highland Springs, Beaumont, Seneca Springs, and Four Seasons. The wastewater treatment plant currently services approximately 52,000 people, in addition to non-residential users.

A recent expansion at the WWTP included constructing a 12-inch diameter brine waste disposal gravity pipeline extending 23 miles from the WWTP north to the nearest connection point of the Inland Empire Brine Line, located near the north side of E Street Bridge in the City of San Bernardino.

It should be noted that this wastewater master plan focuses on the capacity adequacy of the existing conveyance infrastructure, including gravity and force main pipelines, as well as lift stations. This wastewater master plan does not include any evaluations at the wastewater treatment plant, including treatment facilities, capacities, or redundancies.

City of Beaumont

CHAPTER 5 – WASTEWATER FLOWS

This chapter summarizes historical wastewater flows experienced at the Beaumont WWTP and defines flow terminologies relevant to this evaluation. This chapter discusses the wastewater flow distribution within the collection basins and identifies the design flows used in the hydraulic modeling effort and capacity evaluation. The design flows include the flows due to existing conditions and buildout development conditions.

5.1 FLOWS AT THE BEAUMONT WWTP

The wastewater flows collected and treated at the City of Beaumont WWTP vary monthly, daily, and hourly. While the dry weather flows are influenced by customer uses, the wet weather flows are influenced by severity of storm events and the condition of the system. **Figure 5.1** shows the monthly flows versus rainfall at the Beaumont WWTP for 2019. August and November were the maximum months during 2019, with November also being higher than average due to the considerable amount of rain received that month.

Flow data influent to the City of Beaumont WWTP was obtained from City operation staff. The flow data covered a period from 2012 to 2019. From this data monthly, daily, and peak daily flows, were determined as summarized on Table 5.1.

The following definitions are intended to document relevant terminologies shown on Table 5.1:

- Average Annual Flow (AAF). The average annual flow is the total annual flow, or average monthly flow, for a given year, expressed in daily or other time units. This flow includes the combined average of the average dry weather flow (ADWF) and average wet weather flow (AWWF).
- Average Dry Weather Flow (ADWF). The average dry weather flow occurs on a daily basis during the dry weather season, with no evident reaction to rainfall. The ADWF also includes the Base Wastewater Flow (BWF). The base wastewater flow is the average flow that is generated by residential, commercial, and industrial users. The flow pattern from these users varies depending on land use types.
- Average Wet Weather Flow (AWWF). This average wet weather flow occurs on a daily basis during the wet weather season. In addition to the flow components in the ADWF, the AWWF includes infiltration and inflow from storm rainfall events.
- Maximum Month Dry Weather Flow (MMDWF). This maximum month flow occurs during the dry weather season.
- Maximum Month Wet Weather Flow (MMWWF). This maximum month flow occurs during the wet weather season.

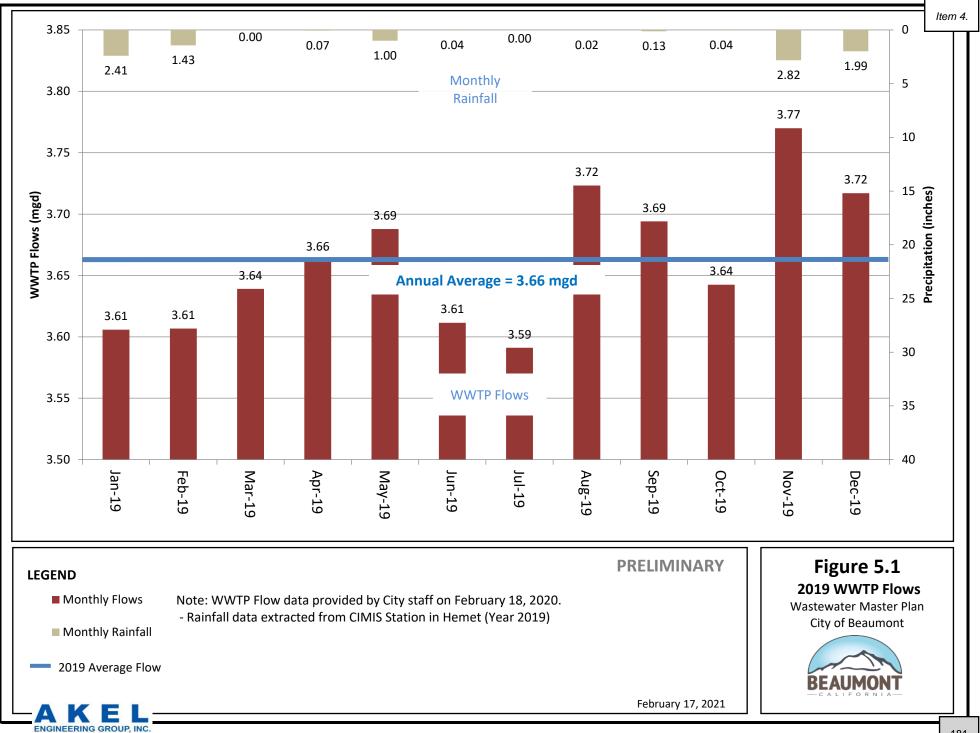


Table 5.1 Wastewater Treatment Plant - Historical Flow Data and Peaking Factors

City of Beaumont

Wastewater Master Plan

	Average Annual	Percentage	Seasona	Average	Maximu	m Month	Maxim	um Day
Year	Flow (AAF)	Change		AWWF ²	MMDWF	MMWWF	MDDWF	MDWW
	(mgd)		(mgd)	(mgd)	(mgd)	(mgd)	(mgd)	(mgd)
2012	2.68		2.70	2.67	2.74	2.80	3.12	3.18
2013	2.79	3.9%	2.68	2.90	2.82	3.12	3.40	3.50
2014	2.98	6.9%	2.97	2.99	3.02	3.19	3.50	3.62
2015	2.92	-1.8%	2.91	2.94	2.97	3.05	3.86	3.58
2016	2.83	-3.4%	2.80	2.86	2.91	3.29	3.27	5.26
2017	3.27	15.8%	-	-	-	-	-	-
2018	3.39	3.7%	3.40	3.38	3.51	3.51	-	-
2019	3.66	8.0%	3.66	3.67	3.72	3.77	4.14	5.07
2020	-	-	-	-	-	4.01	-	4.57
		н	istorical Pea	king Factors (Applied to A	OWF)		
2012	1.00		1.00	0.99	1.02	1.04	1.16	1.18
2013	1.04		1.00	1.08	1.05	1.17	1.27	1.31
2014	1.00		1.00	1.01	1.02	1.07	1.18	1.22
2015	1.00		1.00	1.01	1.02	1.05	1.33	1.23
2016	1.01		1.00	1.02	1.04	1.18	1.17	1.88
2017	-		-	-	-	-	-	-
2018	1.00		1.00	0.99	1.03	1.03	-	-
2019	1.00		1.00	1.00	1.02	1.03	1.13	1.39
2020	-		-	-	-	-	-	-
			Recommend	led Evaluatio	n Peaking Fac	tor		
				1.08	1.05	1.18	1.33	1.88

Notes :

1. Source: 2012-2016 WWTP flows extracted from the City of Beaumont 2017 Inflow and Infiltration Study.

2. Source: 2017-2019 City Flow data provided by City staff on February 18, 2020.

3. Source: Hourly influent flows at the WWTP for the period of 02/20/20 to 04/09/20 provided by City staff on May 1, 2020.

- Maximum Day Dry Weather Flow (MDDWF). This is the highest measured daily flow that occurs during a dry weather season.
- **Maximum Day Wet Weather Flow (MDWWF).** This is the highest measured daily flow that occurs during a wet weather season.
- **Peak Dry Weather Flow (PDWF).** This is the highest measured hourly flow that occurs during a dry weather season.
- **Peak Wet Weather Flow (PWWF).** This is the highest measured hourly flow that occurs during a wet weather season.

Table 5.1 shows the average annual flows (AAF) collected at the City of Beaumont WWTP have increased from 2.68 mgd in 2012 to 3.66 mgd in 2019, which is an increase of approximately 37%.

In addition to listing the 2012-2019 flows, and for comparison purposes, the table calculates the peaking factors applied to the corresponding average dry weather flows (ADWF) for each year. During wet weather flows in 2019, the maximum daily volume (MDWWF) contributed by the City at the City of Beaumont WWTP was 1.39 times higher than the average dry weather flow for the same year.

5.2 BUILDOUT WASTEWATER FLOWS

The land use methodology was used to estimate the buildout wastewater flows from City's Planning Area and to be consistent with the General Plan. Table 5.2 documents the total acreages for residential and non-residential land use, and the undeveloped lands designated for urbanization. The undeveloped lands were multiplied by the corresponding unit flow factor to estimate the wastewater flows. The buildout average daily flows were calculated at 17.8 mgd. Figure 5.2 documents the general hydraulic model allocation locations and methodology for the areas of future development.

5.3 WASTEWATER COLLECTION SYSTEM DESIGN FLOWS

The design flows most relevant in this capacity analysis of the wastewater collection system, in addition to the Maximum Day Dry Weather Flows (MDDWF), include the peak dry weather flow (PDWF) and peak wet weather flow (PWWF).

- **Peak Dry Weather Flow (PDWF).** The PDWF is used for evaluating the capacity adequacy of the wastewater collection system, and to meet the criteria set forth in the previous chapter and in the City standards.
- **Peak Wet Weather Flow (PWWF).** The PWWF is used for designing the capacity of the wastewater collection system, and to meet the criteria set forth in the previous chapter and in the City standards.

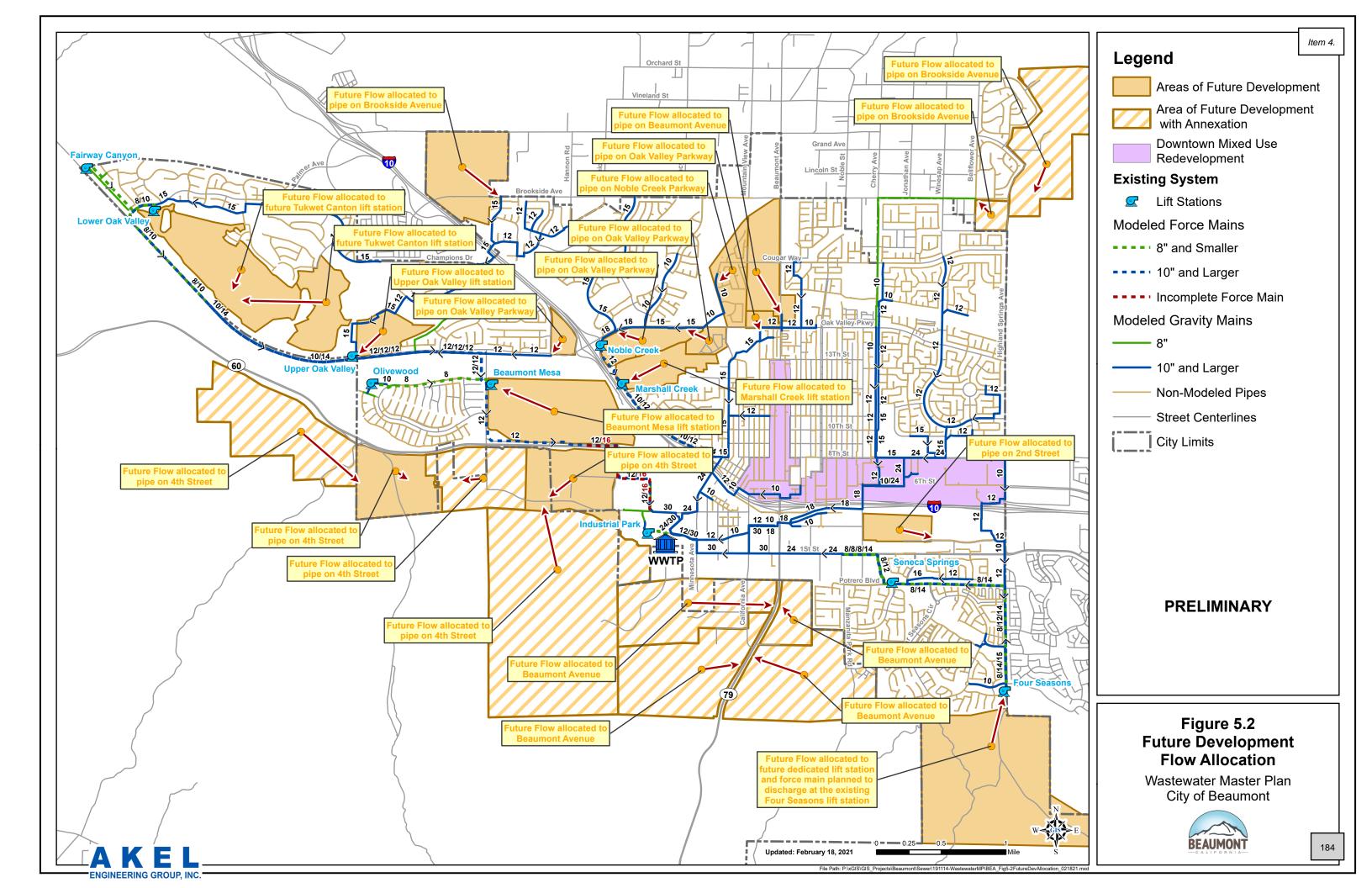


Table 5.2 Future Wastewater Flow Summary

Wastewater Master Plan

City of Beaumont

	Existing	Developmen	t		Future Development within Study Area						
Land Use Type	Existing Lands, No Redevelopment	Sewer Unit Factor	Average Daily Flow	Lands Planned for Redevelopment	New Development	Subtotal Future Development	Sewer Unit Factor	Average Dry Weather Flow	Total Development at Buildout of Study Area	Total Average [Flow	
1	(acre) 2	(gpd/acre) 3	(gpd) 4	(acre) 5	(acre) 6	(acre) 7	(gpd/acre) 8	(gpd) 9	(acre) 10	(gpd) 11	(gpd) 12
General Plan Residential	_										
Single Family Residential	2,389	1,396	3,335,391	118	588.3	706	1,396	986,125	3,096	4,321,516	4.32
High Density Residential	83	2,609	215,334	6	276.1	282	2,609	735,343	364	950,677	0.95
Rural Residential	0	611	0	2,446	312.3	2,758	611	1,685,107	2,758	1,685,107	1.69
Subtotal - General Plan Residential	2,472		3,550,725	2,570	1,176.7	3,746		3,406,575	6,218	6,957,301	6.96
General Plan Non-Residential											
General Commercial	242	1,175	284,837	28	323.8	352	1,175	413,753	595	698,590	0.70
Neighborhood Commercial	0	1,175	0	34	11.5	46	1,175	53,539	46	53,539	0.05
Industrial	211	1,763	371,281	52	315.2	367	1,763	646,780	577	1,018,062	1.02
Public Facility	280	800	224,260	44	63.6	107	800	85,932	388	310,191	0.31
Subtotal - General Plan Non-Residential	733		880,378	158	714.0	872		1,200,004	1,605	2,080,381	2.08
General Plan Overlays											
Traditional Neighborhood ¹	0	-	0	76	498.8	574	-	692,049	574	692,049	0.69
Downtown Mixed Use ¹	0	-	0	321	64.4	386	-	578,272	386	578,272	0.58
Urban Village ¹	0	-	0	107	536.0	643	-	1,041,439	643	1,041,439	1.04
Employment District ¹	0	-	0	0	179.1	179	-	216,814	179	216,814	0.22
Subtotal - General Plan Overlays	0		0	504	1,278.4	1,782		2,528,575	1,782	2,528,575	2.53
Known Developments											
Specific Plan and Other Developments ²	0	-	0	0	4,199.7	4,200	-	6,214,824	4,200	6,214,824	6.21
Subtotal - Known Developments	0		0	0	4,199.7	4,200		6,214,824	4,200	6,214,824	6.21
Total											
	3,205		4,431,103	3,231	7,368.8	10,600		13,349,978	13,805	17,781,081	17.78

Notes:

1. Development flows for Overlay Areas documented in Table 2, General Plan Overlay Development and Flows

2. Specific Plan and Other Development flows documented in Table 5, Specific Plan and Other Development, Remaining Development Flows

PRELIMINARY

The design flows used in evaluating the capacity adequacy of the wastewater collection system are summarized on **Table 5.3**. The table lists the maximum day and peak hour flows for dry and wet weather conditions. PDWF and PWWF used for evaluating the existing wastewater collection system were estimated at 9.3 mgd and 9.8 mgd respectively. The PDWF and PWWF used for designing the General Plan buildout system, including growth, were estimated at 31.2 mgd and 27.9 mgd respectively. It should be noted that the flows shown on **Table 5.3** are extracted from the wastewater system hydraulic model and reflect diurnal flow variations and flow attenuation.

Table 5.3 Design Flows

Wastewater Master Plan

City of Beaumont

PRELIMINARY

Description	Flo	w
	Maximum Day	Peak Hour
	(mgd)	(mgd)
Existing Condition Scenarios		
Existing DWF	5.79	9.27
Existing WWF (10Yr-24HR Design Storm)	5.88	9.76
Ultimate Buildout Scenarios		
Buildout DWF	21.14	31.18
Buildout WWF (10Yr-24HR Design Storm)	18.98	27.85
A K E L ENGINEERING GROUP, INC.		2/18/2021

Notes:

1. Flows shown are extracted from wastewater system hydraulic model and reflect diurnal flow variations and flow attenuation.

City of Beaumont

CHAPTER 6 - HYDRAULIC MODEL DEVELOPMENT

This chapter describes the development and calibration of the City's wastewater collection system hydraulic model. Hydraulic network analysis has become an effectively powerful tool in all aspects of wastewater system planning, design, operation, management, and system reliability analysis. The City's hydraulic model was used to evaluate the capacity adequacy of the existing system and to plan its expansion to service anticipated future growth.

6.1 HYDRAULIC MODEL SOFTWARE SELECTION

The City's hydraulic model combines information on the physical characteristics of the wastewater collection system (pipelines, manholes, and lift stations) and operational characteristics (how they operate). The hydraulic model then performs calculations and solves series of equations to simulate flows in pipes, including backwater calculations for surcharged conditions.

There are several network analysis software products released by different manufacturers that can equally perform the hydraulic analysis satisfactorily. The selection of a particular software depends on user preferences, the wastewater collection system's unique requirements, and the costs for purchasing and maintaining the software.

The hydraulic modeling software used for evaluating the capacity adequacy of the City's wastewater collection system, InfoSWMM by Innovyze Inc., utilizes the fully dynamic St. Venant's equation which has a more accurate engine for simulating backwater and surcharge conditions, in addition to having the capability for simulating manifolded force mains. The software also incorporates the use of the Manning Equation in other calculations including upstream pipe flow conditions. The St Venant's and Manning's equations are discussed in the System Performance and Design Criteria chapter.

6.2 HYDRAULIC MODEL DEVELOPMENT

Developing the hydraulic model included system skeletonization, digitizing and quality control, developing pipe and manhole databases, and wastewater loading allocation.

6.2.1 Skeletonization

Skeletonizing the model refers to the process where pipes not essential to the hydraulic analysis of the system are stripped from the model. Skeletonizing the model is useful in creating a system that accurately reflects the hydraulics of the pipes within the system. In addition, skeletonizing the model will reduce complexities of large models, which will also reduce the time of analysis while maintaining accuracy, but will also comply with the limitations imposed by the computer program.

The hydraulic model for the City of Beaumont was skeletonized to include the pipelines essential to the hydraulic analysis. By comparison, skeletonizing was necessary to reduce the model from

4,300 pipes extracted from GIS to 800 pipes; the total system includes approximately 196 miles of pipe, whereas the hydraulic model includes approximately 56 miles of pipelines. The modeled pipes included pipes 8-inches in a diameter and larger, in addition to some critical smaller gravity wastewater pipes.

Table 6.1 documents the inventory of pipelines included in the hydraulic model by diameter and is approximately 28 percent of the overall system. The modeled wastewater collection system is shown on Figure 6.1.

6.2.2 Digitizing and Quality Control

The City's existing wastewater collection system was digitized in GIS using several sources of data and various levels of quality control. The data sources included the City's existing system as documented in GIS drawings and schematics provided by City staff.

After reviewing the available data sources, the hydraulic model was built and verified by City staff. Using the available wastewater collection system data this master plan developed the wastewater collection system in GIS. Resolving discrepancies in data sources was accomplished by conducted manhole field surveys that recorded the rim elevations, pipe invert elevations, as well as the physical manhole location. Data received were incorporated in the verified model.

6.2.3 Pipes and Manholes

Computer modeling requires the compilation of large numerical databases that enable data input into the model. Detailed physical aspects, such as pipe size, ground elevation, invert elevations, and pipe lengths contribute to the accuracy of the model.

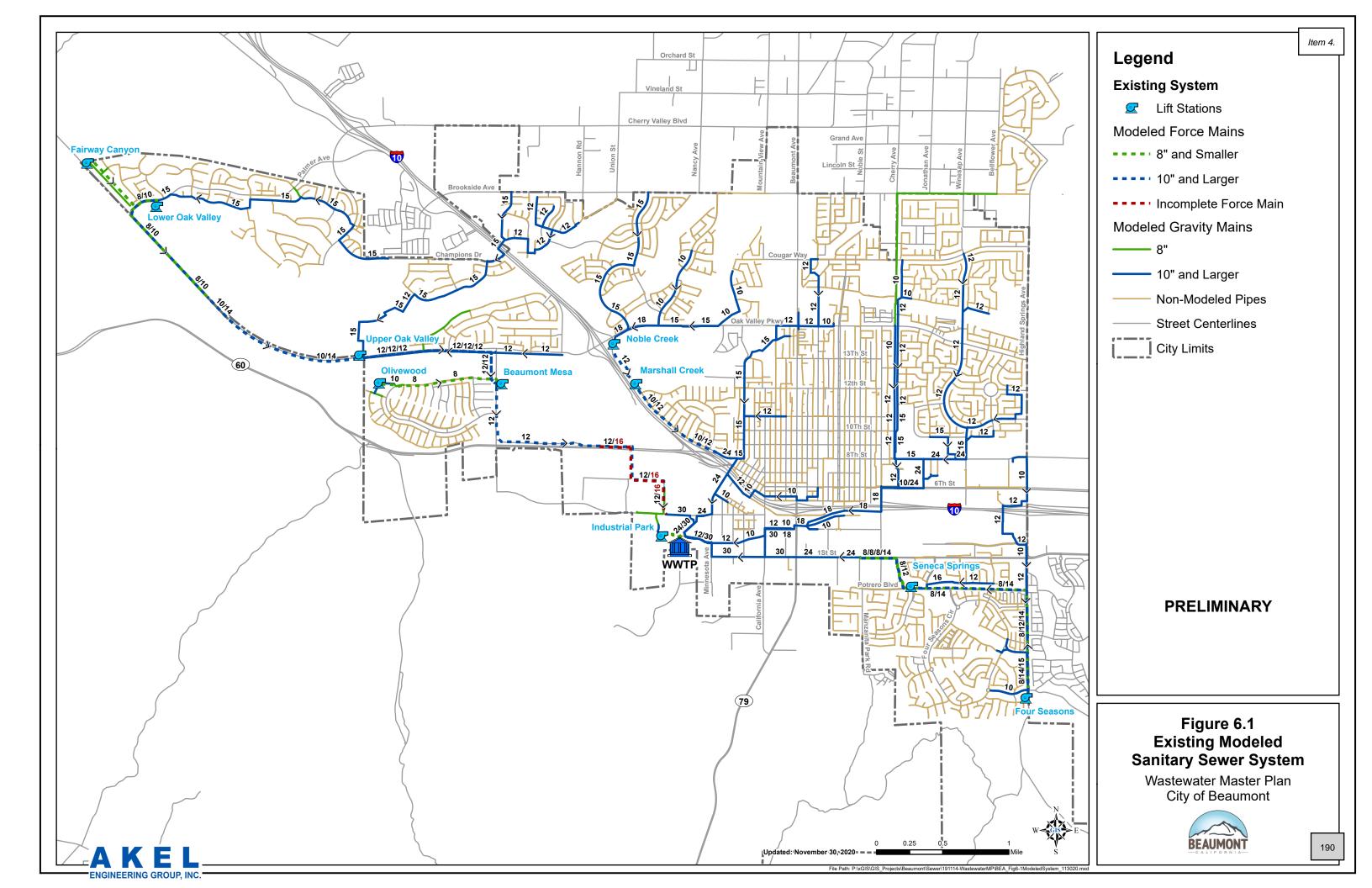
Pipes and manholes represent the physical aspect of the system within the model. A manhole is a computer representation of a place where wastewater flows may be allocated into the hydraulic system, while a pipe represents the conveyance aspect of the wastewater flows. In addition, selected lift station capacity and design head settings were also included into the hydraulic model.

6.2.4 Load Allocation

Load allocation consists of assigning wastewater flow to the appropriate manholes (nodes) in the model. The goal is to distribute the loads throughout the model to best represent actual system response.

The existing loading allocation was based off the water billing records. Using GIS, each customer account was geocoded and spatially joined within the existing wastewater collection system. Wastewater loads were developed by combining the flow factors developed in Chapter 3 with the water billing records for the City. The calculated loads were allocated to the nearest manhole that serves the corresponding customers.

Wastewater loads from each anticipated future development, as presented in previous chapters, were also allocated to the model for the purpose of sizing the required future facilities. The loads



Item 4.

Table 6.1 Existing Modeled Pipeline Inventory

Wastewater Master Plan

City of Beaumont

city of beddin			PRELIMINARY
Pipeline Diameter	Leng	;th	Percent Contribution
(in)	(ft)	(mi)	% Total
Gravity Mains			
8	18,847	3.6	6.4%
10	27,947	5.3	9.5%
12	59,569	11.3	20.3%
15	48,834	9.2	16.6%
16	1,898	0.4	0.6%
18	7,829	1.5	2.7%
24	12,336	2.3	4.2%
30	8,890	1.7	3.0%
Subtotal	186,151	35.3	63.4%
Force Mains			
6	1,060	0.2	0.4%
8	33,212	6.3	11.3%
10	17,260	3.3	5.9%
12	31,796	6.0	10.8%
14	18,941	3.6	6.5%
16	5,058	1.0	1.7%
Subtotal	107,327	20.3	36.6%
Total Modeled Pipe			
Total	293,478	55.6	100.0%
ENGINEERING GROUP, INC.			2/19/2021

from the General Plan Boundary were allocated based on proposed land use and the land use acreages. As many of the areas were very large in size, the loads were allocated evenly to the loading manholes within each area. Infill areas, redevelopment areas, and vacant lands were also included in the future load allocation.

6.3 MODEL CALIBRATION

Calibration is intended to instill a level of confidence in the flows that are simulated, and it generally consists of comparing model predictions to the 2020 V&A flow monitoring program, and making necessary adjustments.

6.3.1 Calibration Plan

Calibration can be performed for steady state conditions, which model the peak hour flows, or for dynamic conditions (24 hours or more). Dynamic calibration consists of comparing the model predictions to diurnal operational changes in the wastewater flows. The City's hydraulic model was calibrated for dynamic conditions.

In wastewater collection systems, and when using dynamic hydraulic modeling to evaluate the impact of wet weather flows, it is common practice to calibrate the model to the following three conditions:

- Peak dry weather flows.
- Peak wet weather flows from storm rainfall Event No. 1(12 March 2020 -13 March 2020)
- Peak wet weather flows from storm rainfall Event No. 2(9 March 2020 10 March 2020)

After the model is calibrated to these conditions, it is benchmarked and used for evaluating the capacity adequacy of the wastewater collection system, under dry and wet weather conditions.

6.3.2 2020 V&A Temporary Flow Monitoring Program

A temporary flow monitoring program was included in this project to validate the existing dry and wet weather flows from each wastewater collection basin. The program consisted of installing 14 flow meters, for a period of 8 weeks, from February 2020 to April 2020. Villalobos and Associates (V&A) was retained to install the flow meters, monitor rainfall, and perform an Infiltration and Inflow analysis. The selected flow monitoring sites are listed on Table 6.2 and shown on Figure 6.2. Additionally, Table 6.3 provided a calibration result summary for each of the respective sites monitored.

The 2020 V&A Flow Monitoring Program captured two rainfall events and included a summary report identifying areas of the City that were most affected by rain dependent infiltration and inflows. The two rainfall events experienced during the flow monitoring period varied in duration and intensity (Table 3.5), and provided an insight into the wastewater collection system response to storm conditions.

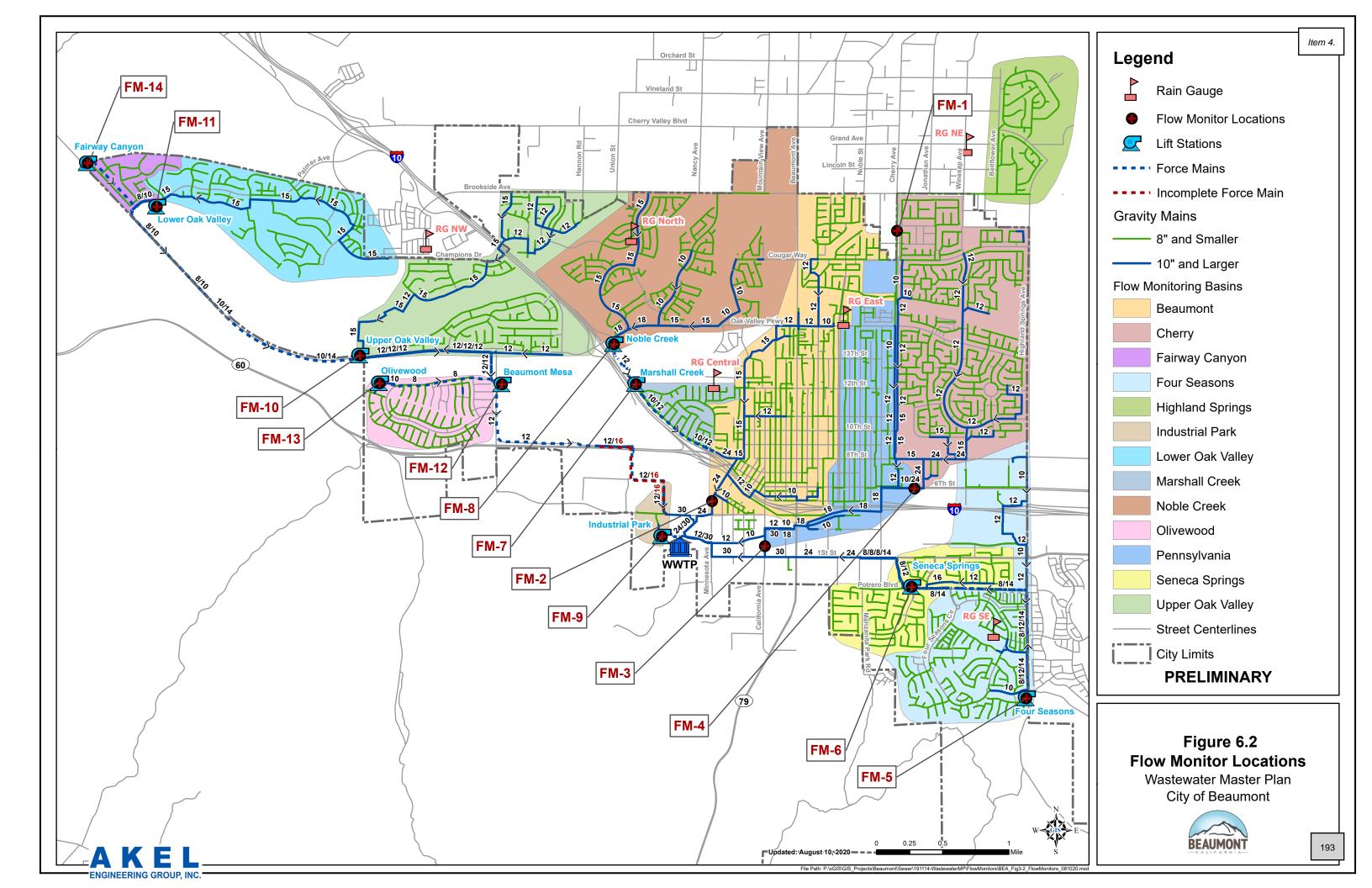


Table 6.2 Flow Monitor Locations

Wastewater Master Plan

City of Beaumont

			PRELIMIN
Site ID	Location Description	Pipe Size (in)	Manhole ID
iravity Main	n Flow Monitors		
FM-1	Cherry Avenue north of Mary Lane	8" N (In Pipe)	SSMH01048
FM-2	Minnesota Avenue approx 500' north of 4th Street	24" N (In Pipe)	SSMH01728
FM-3	California Avenue approx 400' north of 1st Street	30" N (In Pipe)	SSMH00381
FM-4	6th Street approx 400' west of American Avenue	24" E (In Pipe)	SSMH00330
ift Station F	low Monitors		
FM-5	1075 South Highland Springs Road	-	LS-1 (Four Seasons)
FM-6	1390 Potrero Boulevard	-	LS-2 (Seneca Springs)
FM-7	990 Ring Ranch Road	-	LS-3 (Marshall Creek)
FM-8	1899 West Oak Valley Parkway	-	LS-4 (Noble Creek)
FM-9	715 West 4th Street	-	LS-5 (Industrial Park)
FM-10	35980 Oak Valley Parkway	-	LS-6 (Upper Oak Valley)
FM-11	11246 Palmer Avenue	-	LS-7 (Lower Oak Valley)
FM-12	34003 Crenshaw Street	-	LS-8 (Beaumont Mesa)
FM-13	12940 Potrero Boulevard	-	LS-9 (Olivewood)
FM-14	Castello Lane approx 450' north of Artisan Place	-	LS-10 (Fairway Canyon)
AKE I			2/11

Notes:

1. GIS Manhole IDs based on GIS shapefiles provided by City staff November 18, 2019.

Item 4.

Table 6.3 Calibration Results Summary

Wastewater Master Plan City of Beaumont

Elo	w Monitoring ID	Units	Dry Period (Weekday) Dry Period (Weekend)				Weather (Eve Irch 12- March			Weather (Eve Irch 9 - March				
		D Onits	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum		Average	Minimum	Maximum	Avera
	Flow Monitored	(mgd)	0.018	0.156	0.066	0.017	0.166	0.073	0.017	0.351	0.127	0.014	0.191	0.084
S-1	Model	(mgd)	0.018	0.155	0.066	0.018	0.163	0.069	0.018	0.313	0.109	0.018	0.163	0.078
	Difference	(mgd)	0.0002	-0.0009	0.0001	0.0009	-0.0024	-0.0043	0.0006	-0.0384	-0.0182	0.0035	-0.0288	-0.005
	Flow Monitored	(%)	1.36 0.334	-0.60 1.077	0.08	5.51 0.329	-1.43 1.202	-5.93 0.783	3.55 0.319	-10.94 1.955	-14.33 0.965	25.02 0.290	-15.03 1.407	- 7.0 4 0.872
	Model	(mgd) (mgd)	0.334	1.077	0.791	0.329	1.202	0.783	0.319	1.955	0.963	0.290	1.407	0.85
S-2		(mgd)	-0.0320	-0.0224	-0.0023	-0.0416	0.0601	0.0111	-0.0168	-0.1500	-0.0016	0.0116	-0.1865	-0.01
	Difference	(%)	-9.58	-2.08	-0.29	-12.64	5.00	1.42	-5.26	-7.67	-0.17	4.01	-13.26	-1.8
	Flow Monitored	(mgd)	0.195	1.471	0.955	0.150	1.687	1.026	0.169	2.839	1.240	0.194	2.102	1.05
S-3	Model	(mgd)	0.171	1.543	0.955	0.153	1.718	1.048	0.171	2.607	1.259	0.171	1.691	1.04
0-0	Difference	(mgd)	-0.0234	0.0713	0.0001	0.0030	0.0304	0.0230	0.0027	-0.2318	0.0189	-0.0222	-0.4111	-0.00
		(%)	-12.01	4.84	0.01	2.01	1.80	2.24	1.62	-8.17	1.53	-11.48	-19.56	-0.5
	Flow Monitored	(mgd)	0.063	0.854	0.488	0.058	0.917	0.551	0.064	1.084	0.573	0.066	1.147	0.53
S-4	Model	(mgd)	0.067	0.852	0.489	0.064 0.0063	0.903	0.552	0.067	1.100 0.0162	0.588	0.067	0.910	0.52
	Difference	(mgd) (%)	6.40	-0.0024 - 0.28	0.0005 0.11	10.82	-0.0147 - 1.60	0.0004 0.07	0.0025 3.81	1.49	2.65	0.0010 1.53	-0.2366 -20.65	-0.00
	Flow Monitored	(mgd)	0.082	0.399	0.254	0.078	0.390	0.243	0.083	0.549	0.280	0.084	0.404	0.25
	Model	(mgd)	0.085	0.397	0.254	0.082	0.380	0.241	0.085	0.537	0.282	0.085	0.410	0.26
S-5	Difference	(mgd)	0.0032	-0.0022	-0.0001	0.0044	-0.0094	-0.0019	0.0025	-0.0118	0.0016	0.0012	0.0052	0.014
	Dillerence	(%)	3.93	-0.56	-0.05	5.66	-2.42	-0.79	2.98	-2.15	0.55	1.38	1.30	5.8
Flow	Flow Monitored	(mgd)	0.057	0.217	0.143	0.057	0.247	0.163	0.060	0.236	0.154	0.047	0.306	0.14
S-6	Model	(mgd)	0.058	0.216	0.143	0.059	0.244	0.163	0.058	0.232	0.159	0.058	0.228	0.14
	Difference	(mgd)	0.0015	-0.0014	0.0001	0.0014	-0.0027	-0.0003	-0.0018	-0.0039	0.0056	0.0109	-0.0776	0.00
	Flow Monitored	(%)	2.65	-0.66	0.09	2.48	-1.09	-0.19	-3.03	-1.67	3.68	22.99	-25.37	2.3
S-7	Model	(mgd) (mgd)	0.118 0.126	0.595 0.586	0.416 0.416	0.115 0.123	0.768 0.711	0.431 0.423	0.080 0.129	1.062 0.958	0.521 0.493	0.113 0.123	0.711 0.666	0.45 0.44
		(mgd)	0.0077	-0.0085	0.0002	0.0079	-0.0562	-0.0080	0.0485	-0.1046	-0.0284	0.0101	-0.0452	-0.00
	Difference	(%)	6.54	-1.43	0.04	6.92	-7.33	-1.85	60.59	-9.85	-5.44	8.98	-6.36	-1.6
	Flow Monitored	(mgd)	0.076	0.341	0.241	0.072	0.394	0.242	0.069	0.560	0.286	0.074	0.375	0.25
S-8	Model	(mgd)	0.077	0.340	0.241	0.072	0.390	0.241	0.077	0.572	0.284	0.077	0.387	0.25
0-0	Difference	(mgd)	0.0009	-0.0006	0.0002	0.0005	-0.0043	-0.0011	0.0077	0.0122	-0.0023	0.0029	0.0126	0.00
		(%)	1.18	-0.16	0.08	0.66	-1.10	-0.45	11.03	2.18	-0.79	3.90	3.36	0.4
	Flow Monitored	(mgd)	0.030	0.108	0.054	0.027	0.052	0.030	0.008	0.205	0.058	0.009	0.132	0.05
S-9	Model	(mgd)	0.029	0.107	0.055	0.027	0.050	0.030	0.029	0.143	0.063	0.029	0.109	0.05
	Difference	(mgd) (%)	-0.0004 - 1.20	-0.0011 - 1.04	0.0006 1.13	-0.0003 - 0.97	-0.0014 -2.73	-0.0005 - 1.81	0.0208 246.44	-0.0620 - 30.20	0.0050 8.70	0.0206 236.48	-0.0224 - 17.02	0.00 6.9
	Flow Monitored	(mgd)	0.213	1.070	0.696	0.204	1.117	0.734	0.154	1.451	0.864	0.159	1.475	0.77
	Model	(mgd)	0.208	1.036	0.716	0.222	1.178	0.777	0.240	1.436	0.818	0.236	1.126	0.76
S-10		(mgd)	-0.0057	-0.0334	0.0198	0.0174	0.0616	0.0432	0.0855	-0.0148	-0.0461	0.0768	-0.3488	-0.01
	Difference	(%)	-2.67	-3.12	2.84	8.54	5.52	5.89	55.36	-1.02	-5.33	48.25	-23.65	-2.2
	Flow Monitored	(mgd)	0.116	0.564	0.371	0.116	0.664	0.416	0.109	0.627	0.400	0.107	0.603	0.37
S-11	Model	(mgd)	0.130	0.560	0.379	0.119	0.639	0.421	0.130	0.642	0.413	0.130	0.585	0.39
• • •	Difference	(mgd)	0.0139	-0.0041	0.0078	0.0027	-0.0245	0.0045	0.0210	0.0152	0.0133	0.0238	-0.0174	0.01
		(%)	11.92	-0.73	2.11	2.36	-3.69	1.09	19.19	2.43	3.32	22.36	-2.89	4.3
	Flow Monitored	(mgd)	0.294	1.065	0.739	0.255	1.092	0.756	0.198	1.370	0.910	0.253	1.283	0.80
S-12	Model	(mgd) (mgd)	0.228	1.071	0.735	0.212	1.156 0.0640	0.780	0.248	1.505 0.1347	0.847	0.225	1.143 -0.1401	-0.02
	Difference	(mgu) (%)	-0.0002 -22.51	0.0000 0.62	-0.0044 -0.59	-0.0427 -16.78	5.86	3.12	24.77	9.83	-0.0020 - 6.88	-0.0279 -11.01	-0.1401 -10.92	-0.02 - 2.6
	Flow Monitored	(mgd)	0.003	0.036	0.022	0.002	0.021	0.012	0.007	0.057	0.032	0.000	0.000	0.00
0.40	Model	(mgd)	0.004	0.036	0.022	0.002	0.021	0.012	0.004	0.068	0.031	0.004	0.045	0.02
S-13	Difference	(mgd)	0.0008	-0.0002	0.0000	0.0006	0.0003	0.0000	-0.0023	0.0112	-0.0003	0.0043	0.0450	0.02
	Difference	(%)	23.44	-0.64	0.09	33.44	1.37	0.20	-34.88	19.73	-0.93	0.00	0.00	0.0
	Flow Monitored	(mgd)	0.021	0.090	0.061	0.017	0.096	0.064	0.020	0.087	0.043	0.016	0.110	0.06
S-14	Model	(mgd)	0.023	0.090	0.061	0.018	0.095	0.064	0.023	0.090	0.062	0.023	0.090	0.06
	Difference	(mgd)	0.0023	-0.0002	0.0000	0.0007	-0.0009	0.0000	0.0026	0.0033	0.0183	0.0068	-0.0206	-0.00
	E L	(%)	11.30	-0.24	0.00	3.87	-0.89	0.00	12.70	3.80	42.14	42.02	-18.65	-4.1

Item 4.

During the V&A flow monitoring program six rain gauges were set up within the City service area to record storm events during the monitoring period and are shown on Figure 6.1. Data from the V&A flow monitoring effort, as documented in the 2020 V&A Flow Monitoring Program, was used in this analysis to calibrate the computer hydraulic model to average dry weather flow (ADWF) and peak wet weather flow (PWWF) conditions.

6.3.3 Dynamic Model Calibration

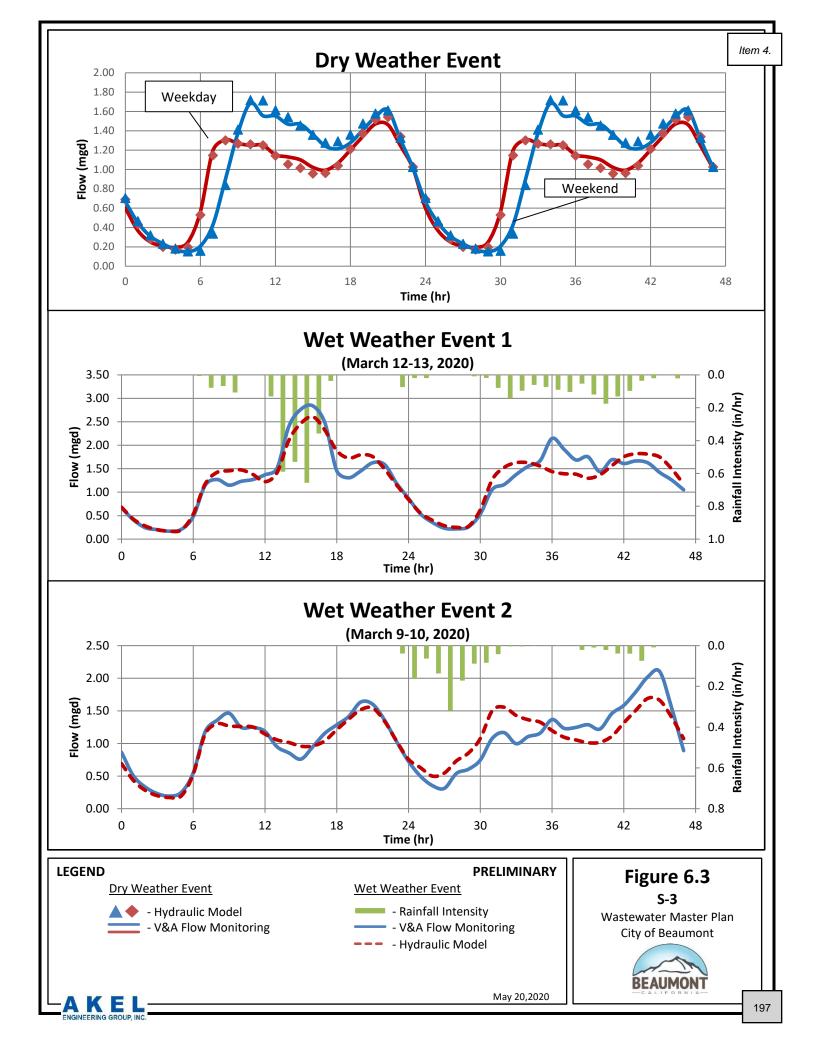
The calibration process was iterative as it involved calibrating each of the 14 flow monitored sites and for the three calibration conditions: 1) peak dry weather flow, 2) peak wet weather flows from storm rainfall Event No. 1, and 3) peak wet weather flows from storm rainfall Event No. 2.

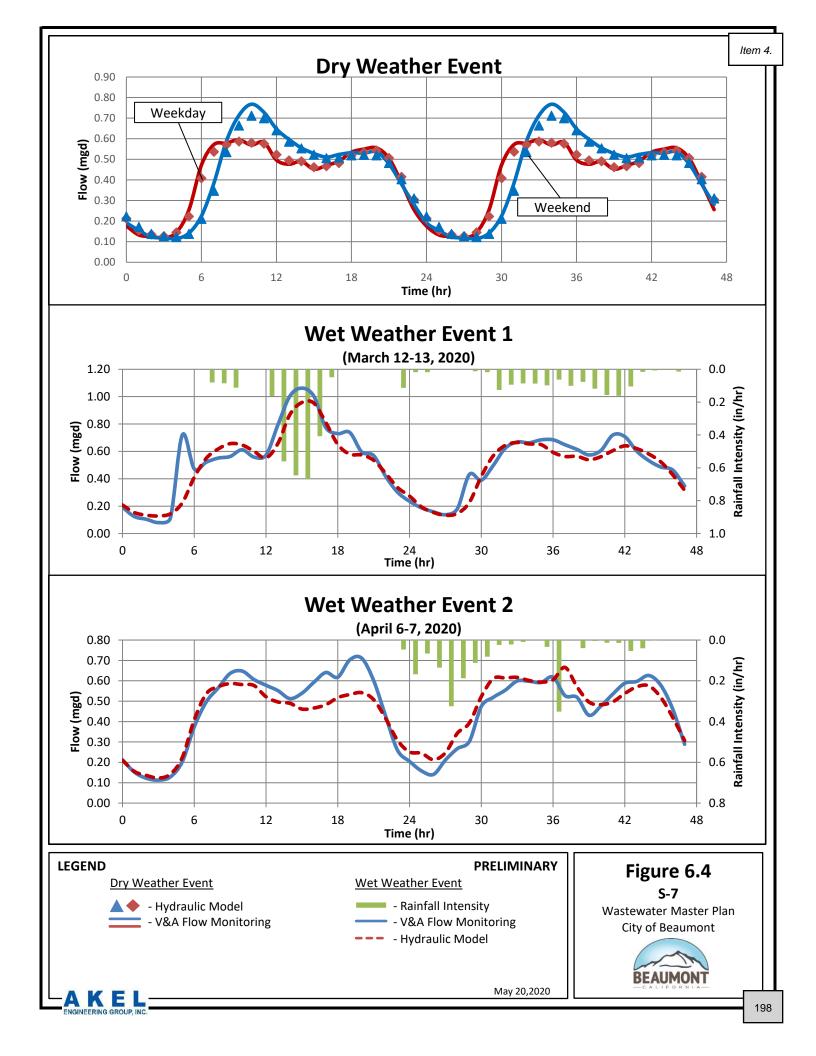
The rain events of March 12-13, 2020 (Event No. 1) and March 10-11, 2020 (Event No. 2), as listed on **Table 3.5**, were used to calibrate the hydraulic model to the wet weather conditions. The diurnal curves for each of the 14 sites were extracted from the 2020 V&A Flow Monitoring Program and the data was used for comparison purposes with the hydraulic model predictions. The calibration effort is an iterative process and continues until it yields acceptable results for each site and for each of the three calibration conditions.

The calibration results for each flow monitoring site are documented in Appendix B and briefly summarized on Table 6.3. These results indicate the calibration effort yielded reasonable comparisons between the flow monitoring data and the hydraulic model predictions at the 14 sites. The calibration results were reviewed and approved by City staff, and representative extracts from Appendix B are shown on Figures 6.3 and Figure 6.4. After each of the calibration process has been completed, the hydraulic model was benchmarked for further analysis and evaluation.

6.3.4 Use of the Calibrated Model

The calibrated hydraulic model was used as an established benchmark in the capacity evaluation of the existing wastewater collection system. The model was also used to identify improvements necessary for mitigating existing system deficiencies and for accommodating future growth. The hydraulic model is a valuable investment that will continue to prove its worth to the City as future planning issues or other operational conditions surface. It is recommended that the model be maintained and updated with new construction projects to preserve its integrity.





City of Beaumont

CHAPTER 7 - EVALUATION AND PROPOSED IMPROVEMENTS

This chapter presents a summary of the wastewater collection system capacity evaluation during peak dry weather flows and peak wet weather flows for the existing and buildout development conditions. This chapter summarizes the lift station condition assessment performed by V&A. The recommended wastewater collection system improvements needed to mitigate capacity deficiencies are also discussed in this chapter.

7.1 OVERVIEW

The calibrated hydraulic model was used for evaluating the wastewater collection system for capacity deficiencies during peak dry weather flows (PDWF) and peak wet weather flows (PWWF). Since the hydraulic model was calibrated for dynamic modeling, the analysis duration was established at 24 hours for most analyses.

The criteria used for evaluating the capacity adequacy of the wastewater collection system facilities (gravity mains, force mains, and lift stations) were discussed and summarized in the System Performance and Design Criteria chapter.

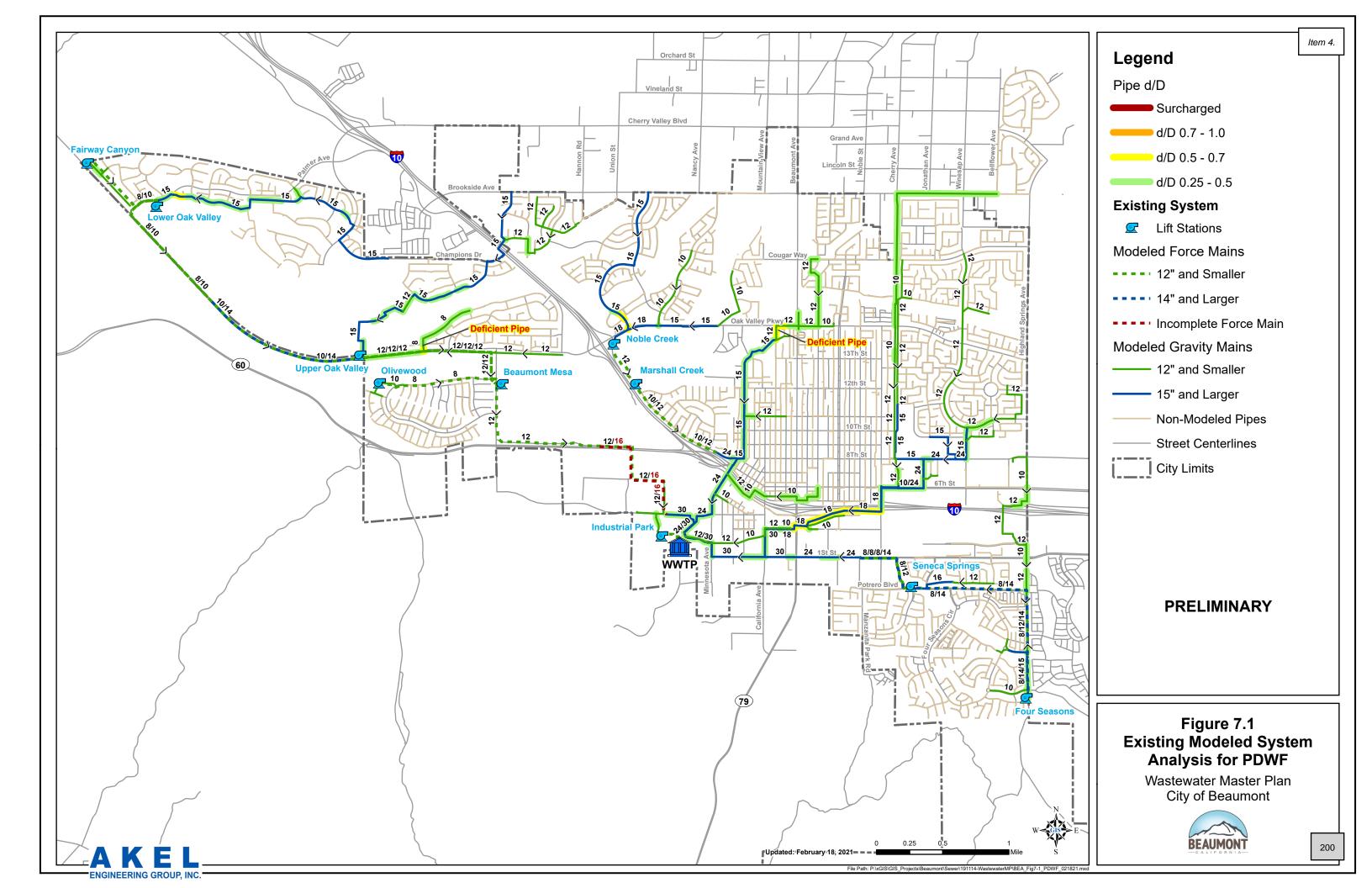
7.2 EXISTING SYSTEM CAPACITY EVALUATION

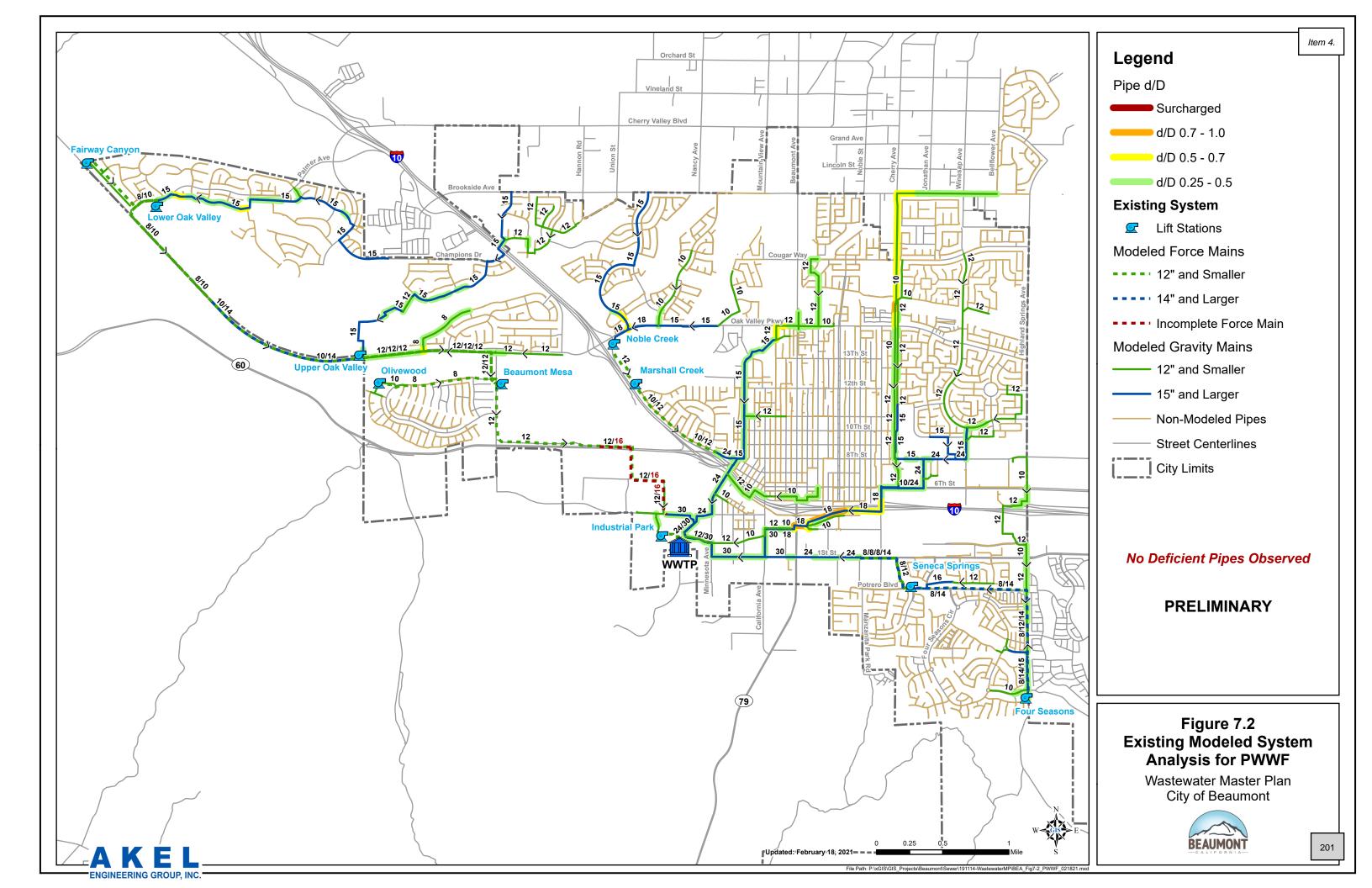
The system performance and design criteria summarized on **Table 3.1** were used as a basis to judge the adequacy of capacity for the existing wastewater collection system. The design flows simulated in the hydraulic model for existing conditions were summarized on **Table 5.3** and are listed as follows:

- Existing PDWF = 9.3 mgd
- Existing PWWF = 9.8 mgd

During the peak dry weather simulations, the maximum allowable pipe d/D criteria for gravity pipelines (0.50 for wastewater mains less than or equal to 12-inch or, 0.70 for wastewater mains greater than 12-inch) was used. During the peak wet weather simulations, the existing wastewater mains are allow to reach the full capacity of 1.0 while the future wastewater mains are allow to 75 percent full.

In general, the hydraulic model indicated that the wastewater collection system exhibited acceptable performance to service the existing customers during both peak dry weather flows (Figure 7.1) and peak wet weather flows (Figure 7.2). The results of the existing system capacity evaluations are discussed in the following sections.





7.2.1 Existing Peak Dry Weather Flows Capacity Evaluation

The existing dry weather flow analysis indicated that the existing wastewater collection system exhibited acceptable performance to service existing customers during peak dry weather flows, as documented on Figure 7.1, with the following exception:

- Apron Lane from Stableford Court to Oak Valley Parkway. This existing 8-inch pipeline experiences d/D ratios over 0.5 under peak dry weather flow conditions.
- Edgar Avenue from Oak Valley Parkway to approximately 580-feet south of Oak Valley Parkway. This existing 12-inch pipeline experiences d/D ratios over 0.5 under peak dry weather flow conditions.

7.2.2 Existing Peak Wet Weather Flows Capacity Evaluation

The existing wet weather flow analysis is intended to document the impact of rainfall events on the existing system, and to identify the improvements necessary to limit wastewater overflows. The design criteria for wet weather events allows pipeline to approach maximum allowable capacity criteria (d/D Ratio of 1.0). The hydraulic analysis indicates no existing deficient pipes observed, as shown on Figure 7.2.

7.3 BEAUMONT MESA LIFT STATION SPECIAL STUDIES

The Beaumont Mesa Lift Station serves as the critical lift station that conveys flows form the north reaches of the City's wastewater system to the WWTP. During the preparation of the WMP several special studies were performed for this lift station. These additional reviews included the following:

- Lift Station As-Built Preparation
- Offline Force Main Exploration
- Wet Well Expansion Site Constraints Analysis

These special studies are summarized in detail in the following sections.

7.3.1 Lift Station As-Built Preparation

City staff requested that detailed schematic drawings be prepared for the Beaumont Mesa Lift station, which would aid staff in reviewing the lift station and provide an updated record drawing source. Cannon completed a detailed survey of the lift station, which included imaging of the dry well interior and a detailed site plan. These updated record drawings are included in Appendix C.

7.3.2 Offline Force Main Exploration

The Beaumont Mesa Lift Station currently conveys flows to the City's WWTP via a single 12-inch force main. Additionally, an incomplete 16-inch force main exists between Highway 60 and the WWTP. However, prior to the WMP it was unknown if the incomplete force main crossed beneath Highway 60 or was only constructed up to the Highway's southern edge. In coordination with

Cannon and C-Below a field survey was completed to confirm the presence of the force main on the north side of the freeway. This field survey discovered approximately 5,220 feet of 16-inch force main on the north side of Highway 60, parallel to the existing 12-inch force main. The existence of this segment beneath the freeway mitigates the need for costly bore and jack construction to connect the 16-inch force main to the Beaumont Mesa Lift station. The survey report is included in **Appendix D**.

7.3.3 Wet Well Capacity Expansion

In order to provide emergency storage capacity at the lift station a wet well capacity analysis was performed. Following discussion with City staff it was determined that the wet well would be expanded to hold a volume equal to a one-hour duration of the peak inflow rate. Table 7.1 summarizes the results of the capacity analysis, which indicates that an additional volume of 0.25 MG is required to provide this emergency storage capacity. Additionally, a cost comparison was performed between constructing this expansion capacity and a no-action alternative. This cost comparison, summarized on Table 7.1, shows that the estimated cost to expand the wet well is less than the minimum possible fine should a sanitary sewer overflow occur.

Following the estimation of the volume expansion a review of the site constraints was performed. Based on the existing site layout and configuration of the existing lift station facilities, as shown on Figure 7.3, there is sufficient area within the existing site to construct the recommended additional volume. Table 7.2 summarizes the Beaumont Mesa available wet well expansion volume excluding concrete volume.

7.4 BEAUMONT MESA LIFT STATION OPERATION

The Beaumont Mesa wet well analysis summarized on **Table 7.1** were used to size the volume of the new wet well with 30 minutes inflow and 60 minutes inflow assuming no wastewater pumping out. During the general plan buildout conditions, the spill duration for 60 minutes inflow are 49.2 minutes and 49.3 minutes under peak hour dry weather and peak hour wet weather events respectively.

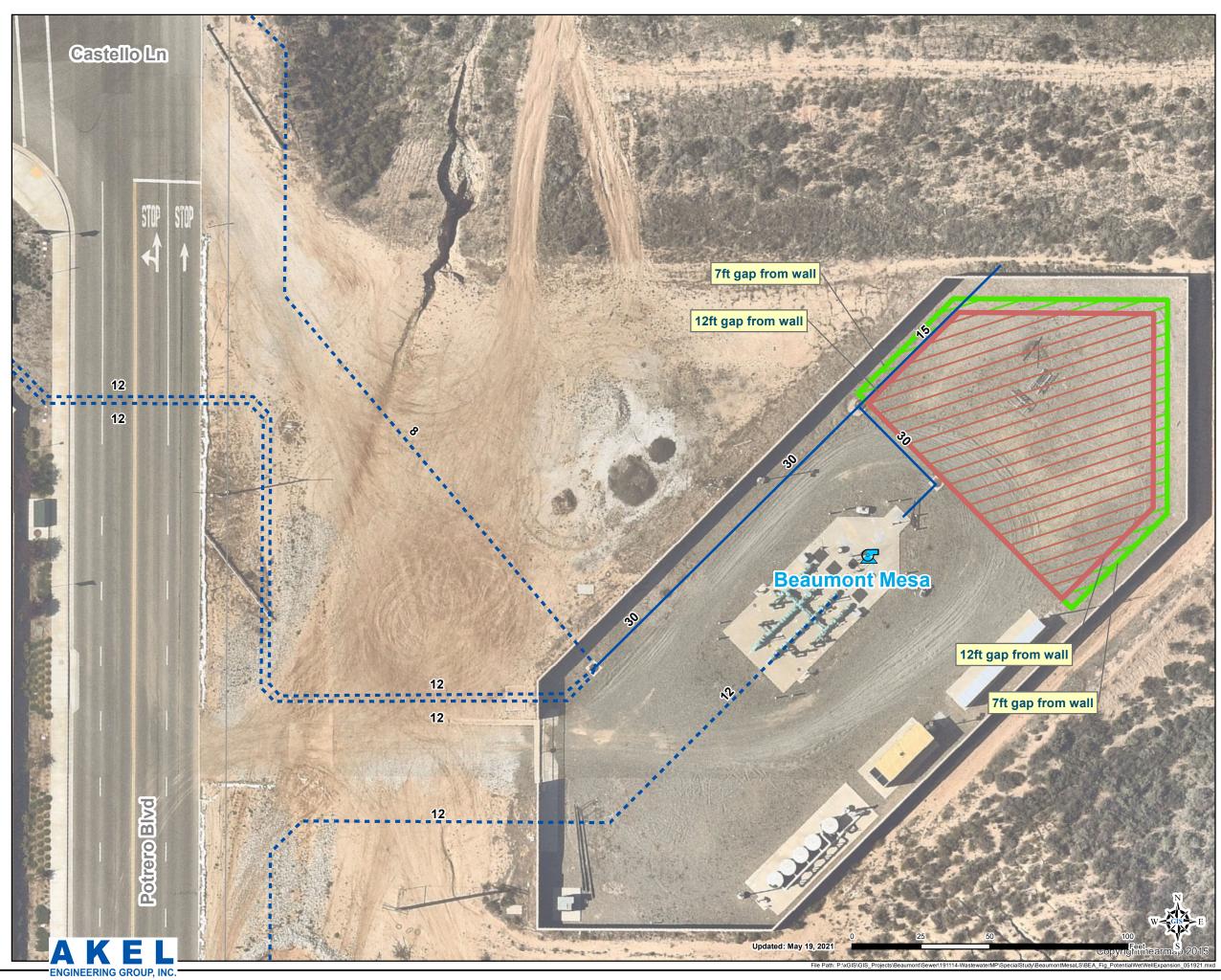
The estimated minimum spill fine is \$2,501,400 dollar for 60 minutes wastewater inflows with possible spill fine rate range from minimum \$10 to \$1,000 dollars based on the fine rate provided by City staff. The estimated CIP cost for the new wet well is \$3,326,000 dollar based on Cannon's preliminary wet well design cost estimate.

7.5 OTHER SPECIAL STUDIES

This Wastewater Master Plan included several special studies requested by City staff and are included in the following:

- Fairway Canyon Preliminary Design Report (PDR) Review
- Wastewater Hydraulic Analysis for McClure Industrial Building

These special studies are summarized in detail in the following sections.



	Item 4.
Legend	
Existing System	
🔄 Lift Station	
· Force Mains	
—— Gravity Mains	
Potential Expansion Exte	nts
Potential Expansion Exter	nts
PRELIMINARY	

Figure 7.3 Potential Wet Well Expansion Wastewater Master Plan City of Beaumont



Table 7.1 Beaumont Mesa LS - Estimated Time to Spill

Wastewater Master Plan

City of Beaumont

	Future Flow	Conditions		
	Average Flor	w Conditions	Peak Flow	Conditions
	Dry Weather	Wet Weather	Dry Weather	Wet Weathe
Beamont Mesa LS Inflow (gpm)				
Upper Oak Valley LS^1	1,850	1,850	3,700	3,700
Olivewood LS ²	650	650	650	650
Gravity Drainage ³	331	412	650	719
Maximum Infow	2,831	2,912	5,000	5,069
Estimated time to Spill				
Maximum Wet Well Volume (gallon) ⁴	54,000	54,000	54,000	54,000
Time to Spill, (mins) ⁵	19.1	18.5	10.8	10.7
30 Minutes Inflow				
Required Total Volume (gallon)	84,927	87,369	150,000	152,070
Existing Wet Well Volume	54,000	54,000	54,000	54,000
Required Remaining Volume (gallon)	30,927	33,369	96,000	98,070
Spill duration (mins)	10.9	11.5	19.2	19.3
Min. Estimated Spill Fine (\$10/gallon) ⁶	\$309,265	\$333,690	\$960,000	\$980,700
New Wet Well				
Recommended Volume	31,000	34,000	96,000	99,000
Estimated CIP Cost (\$8.50/gallons) ^{7,8}	\$410,800	\$450,600	\$1,272,100	\$1,311,900
60 Minutes Inflow				
Required Total Volume (gallon)	169,853	174,738	300,000	304,140
Existing Wet Well Volume	54,000	54,000	54,000	54,000
Required Remaining Volume (gallon)	115,853	120,738	246,000	250,140
Spill time (mins)	40.9	41.5	49.2	49.3
Min. Estimated Spill Fine (\$10/gallon) ⁶	\$1,158,530	\$1,207,380	\$2,460,000	\$2,501,400
New Wet Well				
Recommended Volume	116,000	121,000	246,000	251,000
Estimated CIP Cost (\$8.50/gallons) ^{7,8}	\$1,537,200	\$1,603,400	\$3,259,800	\$3,326,000

Notes:

1. Flow based on recommended pump improvements and assumes the following pump operations:

Average Flow: One duty pump active

Peak Flow Conditions: Two duty pumps active

2. Flow based on recommended pump improvements and assumes the following pump operations:

Average/Peak Flow: One duty pump active

3. Peak flows extracted from wastewater hydraulic model. Average flows estimated based on peak flows and associated peaking factors.

4. Volume estimated based on 21.0 wet well level and total wet well area estimated based on drawings provided by Cannon May 12, 2020.

5. Time to spill estimated based on maximum wet well volume and maximum inflow.

6. Spill fine cost shown reflected the minimum fine rate. Possible spill fine rate range from \$10 to \$1,000 dollars.

7. Wet Well costs estimated based on cost provided by Cannon August 12, 2020.

8. Cost includes additional Master Plan Contingencies of 20% for Construction Contingencies and 30% for Capital Improvement Contingencies

Table 7.2 Potential Beaumont Mesa Wet Well Expansion

Wastewater Master Plan City of Beaumont

PRELIMINARY

Potential Expansion Exte	Potential Expansion Extents			
Wet Well Interior	Units			
Maximum Depth ¹	ft	9	9	
Freeboard ¹	ft	1	1	
Available Depth ¹	ft	8	8	
Interior Slope ²	%	6.76%	7.25%	
Available Wet Well Volume				
Total Volume With Sloped Concrete	gal	500,988	428,512	
Volume of Sloped Concrete	gal	182,049	155,923	
Available Wet Well Volume	gal	318,938	272,589	
ENGINEERING GROUP, INC.			5/19/2021	

Notes:

1. Wet well expansion maximum depth and available depth based on drawings provided by Cannon August 12, 2020.

2. Wet well expansion interior slope assumed 7-feet drop across wet well.

Item 4.

7.5.1 Fairway Canyon Preliminary Design Report (PDR) Review

City staff requested Akel Engineering Group to review the PDR prepared by Proactive Engineering Consultants West, Inc. for consistency with criteria documented in the City's inprogress 2021 Wastewater Master Plan. Fairway Canyon development is a four-phase residential development consists of 1,312 total dwelling units spread over approximately 310 acres in the northwest portion of the City of Beaumont (City). The PDR estimated the average flows using per capita sewer flow generation rates based on Eastern Municipal Water District (EMWD) standards while the in-progress City of 2021 Wastewater Master Plan estimated average flows for the study area that is based on EMWD unit flow factors applied to overall site acreage.

The review also included a lift station and force main capacity evaluation. Based on the findings, this study indicated that the PDR flow estimation methodology results are slightly higher than the flows estimated in the 2021 Wastewater Master Plan. The review indicates this PDR assumptions meet the 2021 Wastewater Master Plan criteria, as documented in the technical memorandum included in Appendix E.

7.5.2 Wastewater Hydraulic Analysis for McClure Industrial Building

McClure Industrial building is a 1.02 acres lot size development located at the northeast corner of Minnesota Avenue and 1st Street. The estimated average flows are based on EMWD unit flow factors on per acres basis, and uses daily peaking factors based on historical flow data and hourly peaking factors based on flow monitoring data. This study evaluates the capacity adequacy of the existing wastewater collection system to service the development flows and if necessary, improvements to mitigate capacity deficiencies. Based on the findings, this study indicates that the existing wastewater collection system is adequate to serve development flow. The hydraulic analysis package is included in Appendix F.

7.6 LIFT STATION ASSESSMENT

This Wastewater Master Plan included a review of the City's exiting wastewater lift stations, which included the following analyses:

- **Pumping Capacity Evaluation:** The pumping capacity of each modeled lift station was reviewed to ensure each station is capable of conveying wastewater flows under existing and buildout development conditions. This evaluation compared peak lift station inflows under peak wet weather conditions against the existing lift station firm capacities and documented any recommended improvements. The results of the pump station capacity evaluation are documented on Table 7.3.
- Force Main Capacity Evaluation: The existing lift station force mains were evaluated to
 determine capacity adequacy for both existing and buildout development conditions. This
 evaluation analyzed the pipeline velocity for the existing force mains and determined if a
 larger pipeline is required to convey either existing or buildout sewer flows. The results of
 the force main evaluation are documented on Table 7.4.

Table 7.3 Lift Station Capacity Analysis

Wastewater Master Plan

City of Beaumont

	Design Firm Capacity	Total Capacity	Exis	ting System An	alysis	Fut	ure System Ana	alysis	
Pump Station		(Includes Standby)	Peak Wet We	eather Flows ¹	Surplus/ Deficiency	Peak Wet We	eather Flows ¹	Surplus/ Deficiency	Recommended Improvements
	(gpm)	(gpm)	(gpm)	(mgd)	(gpm)	(gpm)	(mgd)	(gpm)	
Existing System									
Beaumont Mesa ³	1,797	3,594	2,020	2.91	-223	4,530	6.52	-2,733	Construct two 3,500 gpm and two 1,50 gpm pumps, three duty and one standb for total capacity of 10,000 gpm.
Fairway Canyon ²	400	800	77	0.11	323	90	0.13	310	
Lower Oak Valley	1,050	1,700	965	1.39	85	1,217	1.75	-167	Construct three 625 gpm pumps, two du and one standby, for total capacity of 1,875 gpm
Marshall Creek	1,150	2,300	778	1.12	372	1,696	2.44	-546	Construct two 1,700 gpm pumps, one du and one standby, for total capacity of 3,400 gpm
Noble Creek	1,865	3,730	465	0.67	1,400	958	1.38	907	
Seneca Springs	900	1,350	201	0.29	699	378	0.54	522	
Upper Oak Valley	2,700	5,000	1,914	2.76	786	3,634	5.23	-934	Construct three 1,850 gpm pumps, two duty and one standby, for total capacity 5,550 gpm
Four Seasons	1,740	3,715	442	0.64	1,298	2,616	3.77	-876	Construct three 1,350 gpm pumps, two duty and one standby, for total capacity 4,050 gpm
Industrial Park	112	262	106	0.15	6	288	0.41	-176	Construct two 300 gpm pumps, one du and one standby, for total capacity of 6 gpm
Olivewood	310	620	53	0.08	257	612	0.88	-302	Construct two 625 gpm pumps, one du and one standby, for total capacity of 1,250 gpm
Future System									
Beaumont Ave South		-	-	-	-	1,788	2.57	-1,788	Construct three 900 gpm pumps, two du and one standby, for total capacity of 2,700 gpm
Beaumont Crossroads	-	-	-	-	-	4,659	6.71	-4,659	Construct three 2,350 gpm pumps, two duty and one standby, for total capacity 7,050 gpm
Brookside Ave	-	-	-	-	-	278	0.40	-278	Construct two 300 gpm pumps, one du and one standby, for total capacity of 6 gpm
Tukwet Canyon	-	-	-	-	-	709	1.02	-709	Construct three 375 gpm pumps, two du and one standby, for total capacity of 1,125 gpm

Notes:

1. Maximum average hour flows extracted from sewer system hydraulic model.

2. Lift station current capacity is different than Design Capacity as directed by City staff December 15, 2020.

3. Pump information provided by Xylem staff March 02, 2021.

Table 7.4 Force Main Capacity Analysis

Wastewater Master Plan

City of Beaumont

Lift Station ID	Force Main Length	Force Main Diameter		Wet Weather		Wet Weather	Recommended
	Longen		Flow	Velocity	Flow	Velocity	Improvements
	(ft)	(in)	(mgd)	(ft/s)	(mgd)	(ft/s)	
Existing System							
Beaumont Mesa	11,750	12	2.91	5.7	2.09	4.1	
	5,250	16	-	-	4.46	4.9	Connect to currently incomplete force main
Faiway Canyon	3,800	8	0.11	0.5	0.13	0.6	-
Lower Oak Valley ²	13,000	Varies 8- inch/10-inch	0.50	2.2	0.99	4.4	-
	13,000	Varies 10- inch/14-inch	0.89	2.5	1.77	5.0	-
Marshall Creek	4,300	10	0.43	1.2	0.93	2.6	-
	4,300	12	0.69	1.4	1.51	3.0	-
Noble Creek	1,950	12	0.67	1.3	1.38	2.7	-
Seneca Springs	3,150	8	0.14	0.6	0.27	1.2	-
	3,100	8	0.14	0.6	0.27	1.2	-
Upper Oak Valley	6,950	12	1.38	2.7	2.65	5.2	-
	6,950	12	1.38	2.7	2.65	5.2	-
Four Seasons	12,000	8	0.12	0.5	0.70	3.1	-
	12,000	14	0.52	0.7	3.06	4.4	-
Industrial Park	1,100	6	0.15	1.2	0.41	3.3	-
Olivewood	5,100	8	0.08	0.3	0.88	3.9	-
Future System							
Beaumont Ave	5,050	10	-	-	2.57	7.3	-
Beaumont Crossroads	9,150	6	-	-	0.47	3.7	-
	9,200	16	-	-	6.24	6.9	-
Brookside Ave	2,850	6	-	-	0.40	3.2	-
Tukwet Canyon	6,250	8	-	-	0.51	2.3	-
	6,250	8	-	-	0.51	2.3	-

ENGINEERING GROUP, INC. Notes:

1. Maximum average hour flows extracted from sewer system hydraulic model.

2. The maximum velocities shown are based on the peak wet weather flow in the smaller of the two force main diameters.

 Condition Assessment: V&A conducted a condition assessment of the 10 lift stations, which included documentation of the existing physical conditions, a condition rating of 1 (Very Good) to 5 (Very Poor) for various onsite components, and an opinion of probable cost for potential improvements. The condition assessment did not review the condition of the lift station pumps or the electrical, mechanical, and control elements of the lift stations.

The report completed by V&A for the condition assessment is included in **Appendix G**, while the following sections include a brief summary of the information prepared for each lift station. It should be noted that the discussion in the following sections only includes a summary of the condition assessment results for components that received a score of 4 (Poor) or 5 (Very Poor).

7.6.1 Fairway Canyon Lift Station

The following sections document the pumping capacity evaluation, force main evaluation, and condition assessment for the Fairway Canyon Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 77 gpm and 90 gpm under buildout PWWF conditions. The existing lift station capacity is sufficient for existing and buildout conditions.
- Force Main Evaluation: As documented on Table 7.4 the existing 8-inch Fairway Canyon force main is adequate to convey flows under existing and buildout development conditions.
- **Condition Assessment:** Leak observed on the second duty pump, immediate repair is recommended to prevent further corrosion.

7.6.2 Lower Oak Valley Lift Station

The following sections document the pumping capacity evaluation, force main evaluation, and condition assessment for the Lower Oak Valley Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 965 gpm and 1,217 gpm under buildout PWWF conditions. This lift station is under capacity during buildout development conditions and is recommended for replacement.
- Force Main Evaluation: As documented on Table 7.4 the existing parallel of 8-inch, 10inch and 10-inch, 14-inch combination force main are adequate to convey flows under existing and buildout development conditions.
- **Condition Assessment:** The condition assessment indicated that replacement of heavily corroded pump discharge pipeline is necessary.

7.6.3 Upper Oak Valley Lift Station

The following sections document the pumping capacity evaluation and force main evaluation for the Upper Oak Valley Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 1,914 gpm and 3,634 gpm under buildout PWWF conditions. This lift station is under capacity during buildout development conditions and is recommended for replacement.
- Force Main Evaluation: As documented on Table 7.4 the existing parallel 12-inch force main are adequate to convey flows under existing and buildout development conditions.
- **Condition Assessment:** The condition assessment indicated that replacement of heavily corroded pump discharge pipeline is necessary. Additionally, repair cracking on pipe supports spanning concrete base to protect from moisture.

7.6.4 Olivewood Lift Station

The following sections document the pumping capacity evaluation, force main evaluation, and condition assessment for the Olivewood Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 53 gpm and 612 gpm under buildout PWWF conditions. This lift station is under capacity during buildout development conditions and is recommended for replacement.
- Force Main Evaluation: As documented on Table 7.4 the existing 8-inch force main is adequate to convey flows under existing and buildout development conditions
- **Condition Assessment:** The condition assessment recommended paving site surface to reduce risk of animals hiding.

7.6.5 Beaumont Mesa Lift Station

The following sections document the pumping capacity evaluation, force main evaluation, and condition assessment for the Beaumont Mesa Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 2,020 gpm and 4,530 gpm under buildout PWWF conditions. This lift station is under capacity during existing and buildout development conditions. It is recommended that the originally design pumps be installed, which will provide sufficient capacity under existing and buildout PWWF conditions.
- Force Main Evaluation: As documented on Table 7.4 the existing 12-inch force main is under capacity during buildout development conditions. It is recommended that the

existing incomplete force main be extended to the lift station. and is recommended to complete the existing 16-inch incomplete force main.

• **Condition Assessment:** The condition assessment recommended repair heavily corroded conduit (instrumentation) at top of wet well structure.

7.6.6 Noble Creek Lift Station

The following sections document the pumping capacity evaluation and force main evaluation for the Noble Creek Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 465 gpm and 958 gpm under buildout PWWF conditions. The existing lift station capacity is sufficient for existing and buildout conditions.
- Force Main Evaluation: As documented on Table 7.4 the existing 12-inch force main is adequate to convey flows under existing and buildout development conditions.
- **Condition Assessment:** The condition assessment indicated that the components of this lift station are in generally acceptable condition, with no components receiving a score of 4 or greater.

7.6.7 Marshall Creek Lift Station

The following sections document the pumping capacity evaluation, force main evaluation, and condition assessment for the Marshall Creek Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 778 gpm and 1,696 gpm under buildout PWWF conditions. This lift station is under capacity during buildout development conditions and is recommended for replacement.
- Force Main Evaluation: As documented on Table 7.4 the existing parallel 10-inch and 12-inch force main are adequate to convey flows under existing and buildout development conditions.
- **Condition Assessment:** The condition assessment recommended that pump discharge piping should be replace; additionally, lid and cover frame replacement are necessary.

7.6.8 Industrial Park Lift Station

The following sections document the pumping capacity evaluation, force main evaluation, and condition assessment for the Industrial Park Lift Station.

• **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 106 gpm and 288 gpm under buildout PWWF conditions. This lift

station is under capacity during buildout development conditions and is recommended for replacement.

- Force Main Evaluation: As documented on Table 7.4 the existing 6-inch force main is adequate to convey flows under existing and buildout development conditions.
- **Condition Assessment:** The condition assessment indicated that the components of this lift station are in generally acceptable condition, with no components receiving a score of 4 or greater.

7.6.9 Seneca Springs Lift Station

The following sections document the pumping capacity evaluation and force main evaluation for the Seneca Springs Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 201 gpm and 378 gpm under buildout PWWF conditions. The existing lift station capacity is sufficient for existing and buildout conditions.
- Force Main Evaluation: As documented on Table 7.4 the existing parallel 8-inch force mains are adequate to convey flows under existing and buildout development conditions.
- **Condition Assessment:** The condition assessment indicated that the components of this lift station are in generally acceptable condition, with no components receiving a score of 4 or greater.

7.6.10 Four Seasons Lift Station

The following sections document the pumping capacity evaluation, force main evaluation, and condition assessment for the Four Seasons Lift Station.

- **Pumping Capacity Evaluation:** The maximum modeled lift station inflow under existing PWWF conditions is 442 gpm and 2,616 gpm under buildout PWWF conditions. This lift station is under capacity during buildout development conditions and is recommended for replacement.
- Force Main Evaluation: As documented on Table 7.4 the existing parallel 8-inch and 14inch force mains are adequate to convey flows under existing and buildout development conditions.
- **Condition Assessment:** The condition assessment indicated that the components of this lift station are in generally acceptable condition, with no components receiving a score of 4 or greater.

7.7 ULTIMATE BUILDOUT CAPACITY IMPROVEMENTS

The system performance and design criteria summarized on **Table 3.1** were used as a basis to evaluate the capacity adequacy of the existing wastewater collection system. The design flows simulated in the hydraulic model for the General Plan buildout were summarized on **Table 5.3** and are documented as follows:

- Buildout PDWF = 31.2 mgd
- Buildout PWWF = 27.9 mgd

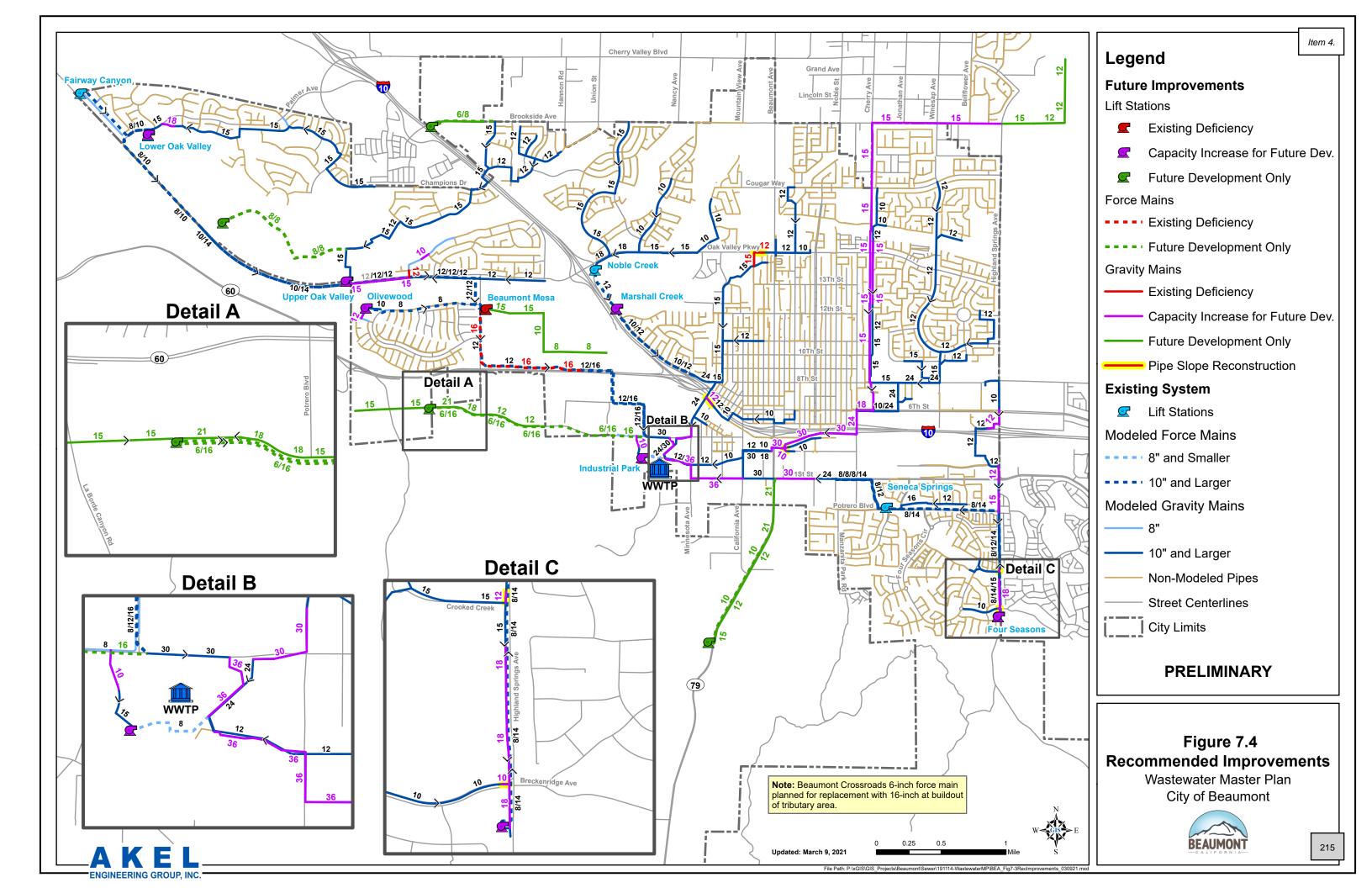
During the peak dry weather simulations, the maximum allowable pipe d/D criteria (0.5 for 12-inch or smaller and 0.70 for larger than 12-inches) was used. During the peak wet weather simulations, the maximum allowable pipe d/D criteria for new pipes 0.75 was used. For existing pipes, the criteria were relaxed to allow a maximum d/D ratio of 1.0 to prevent unnecessary pipe replacements.

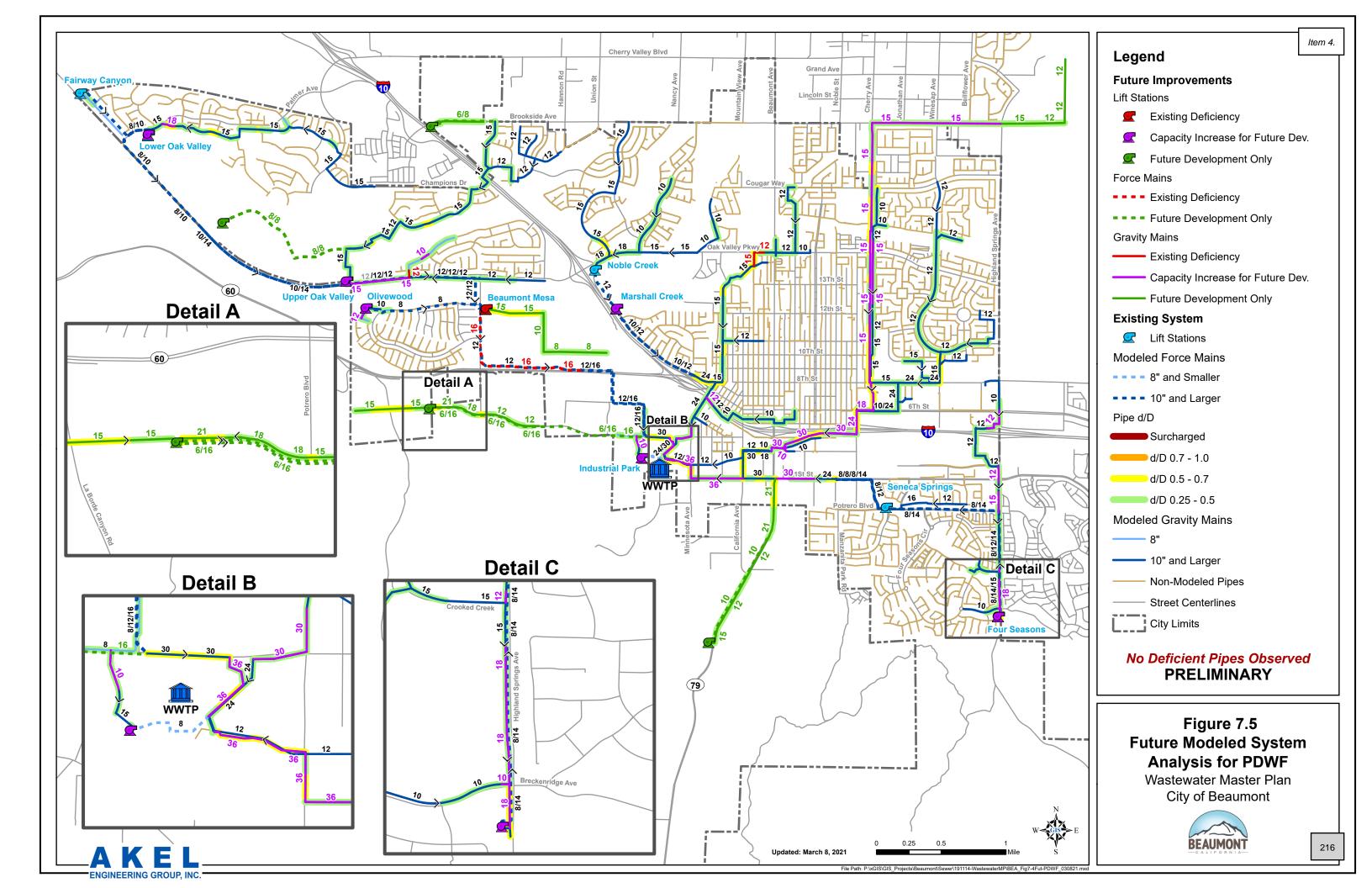
The proposed capacity improvements for the wastewater collection system are shown graphically on **Figure 7.4** and summarized on **Table 7.5**, which includes lift station, force main, and gravity main improvements. This table lists the master plan assigned improvement number (e.g., P-1), along with other relevant information including alignment description, capacity or pipe size, and pipe length. These improvements are also summarized on the following pages. As shown on **Figure 7.4**, the improvements are separated into three categories, which are described as follows:

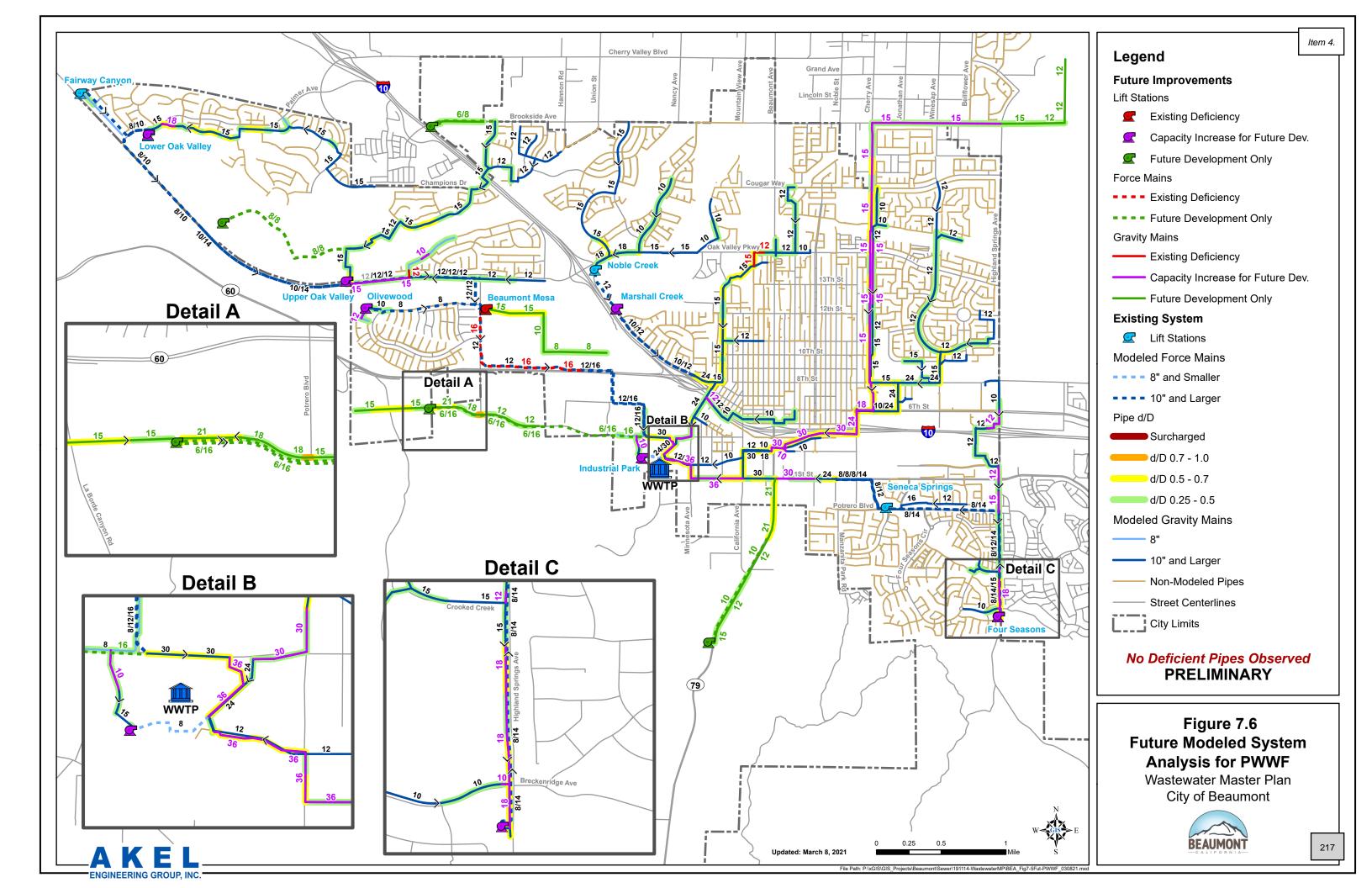
- Existing Pipeline Existing Capacity Deficiency: These improvements are intended to mitigate a capacity deficiency in an existing pipeline. The proposed improvement is sized to address this deficiency.
- Existing Pipeline Capacity Deficiency Triggered by Future Development: These improvements reflect existing system pipeline alignment that become deficient due to future developments. The proposed improvement is sized to address this future deficiency, when it is triggered. City staff are currently completing special studied for future developments, as they happen, to identify the triggers for these improvements.
- New Pipeline Triggered by Future Development: These improvements are intended to extend the wastewater collection system to serve future growth in new areas. City staff are currently completing special studied for future developments, as they happen, to identify the final alignments and final pipeline size requirements.

7.7.1 Lift Station Capacity Improvements

This section documents lift station improvements for the wastewater collection system. Lift station improvements were identified based on the results of the capacity analysis shown on Table 7.3 and summarized in a previous section.







Wastewater Master Plan

PRFI IMINARY **Pipeline Improvements** Type of Improv. No. Alignment Limits Existing New/ Improvement Diameter Length Replace Diameter Lower Oak Valley Lift Station Tributary Area **Gravity Main Improvements Future Capacity** LOV-P1 Irwin St From Floyd Cir to Palmer Ave 15 Replace 18 525 Increase **Lift Station Improvements** Lift Station LOV-LS Lower Oak Valley Lift Station Replace 3 @ 625 gpm Replacement **Tukwet Canyon (New) Lift Station Tributary Area Force Main Improvements** From Tukwet Canyon lift station to TC-FM1 New Force Main Sorenstam Dr/Price St approx. 1,000' n/o Upper Oak Valley lift 8 6.250 New station From Tukwet Canyon lift station to TC-FM2 Sorenstam Dr/Price St 8 6,250 New Force Main approx. 1,000' n/o Upper Oak Valley lift New station Lift Station Improvements TC-LS New Lift Station **Tukwet Canyon Lift Station** 3 @ 375 gpm New **Upper Oak Valley Lift Station Tributary Area Gravity Main Improvements Future Capacity** UOV-P1 Straightaway Dr From Balata St to 350' sw/o Balata St 8 Replace 10 350 Increase **Existing Capacity** UOV-P2 Apron Ln 8 Replace 12 300 From Stableford Ct to Oak Valley Pkwy Deficiency **Future Capacity** UOV-P3 Oak Valley Pkwy From Apron Ln to 2,450' w/o Apron Ln 12 Replace 2,500 15 Increase **Lift Station Improvements** Lift Station UOV-LS Upper Oak Valley Lift Station Replace 3 @ 1,850 gpm Replacement **Olivewood Lift Station Tributary Area Gravity Main Improvements Future Capacity** From Artisan PI to approx. 500' n/o **O-P1** ROW 10 525 Replace 12 Artisan Pl Increase Lift Station Improvements Lift Station O-LS **Olivewood Lift Station** Replace 2 @ 625 gpm Replacement **Brookside Avenue (New) Lift Station Tributary Area Gravity Main Improvements** From 480' w/o Deodar Dr to Brookside BR-P1 Brookside Ave 8 2,200 New Capacity New Ave lift station **Force Main Improvements** From Brookside Ave lift station to Deodar BR-FM1 Brookside Ave New Force Main New 6 2,825 Dr Lift Station Improvements BR-LS New Lift Station Brookside Ave Lift Station New 2 @ 300 gpm **Beaumont Mesa Lift Station Tributary Area Gravity Main Improvements** From 800' n/o Monero Valley Fwy to ROW BM-P1 New Capacity New 8 2,575 2,600' e/o Potrero Blvd

Wastewater Master Plan

						PR	ELIMINAR
	Type of				Pipelii	ne Improvem	ents
Improv. No.	Improvement	Alignment	Limits	Existing Diameter	New/ Replace	Diameter	Length
				(in)		(in)	(ft)
BM-P2	New Capacity	ROW	From 2,600' e/o Potrero Blvd to 1,400' s/o Oak Valley Pkwy	-	New	10	1,600
BM-P3	New Capacity	ROW	From 1,400' s/o Oak Valley Pkwy to Beaumont Mesa lift station	-	New	15	2,350
Force Main In	nprovements						
BM-FM1	New Force Main	Potrero Blvd/Western Knolls Ave	From Beaumont Mesa lift station to 1,300' w/o Western Knolls Ave	-	New	16	6,500
Lift Station Im	provements				1		
BM-LS	New Pump	Beaumont Mesa Lift Si	ation		New	2 @ 3,50 2 @ 1,50	
BM-WW	New Wet Well	Beaumont Mesa Lift St	tation		New		
Beaumont	Crossroads (New) Lift Station Tributar	y Area				
Gravity Main	Improvements						
BC-P1	New Capacity	W 4th St	From 1,875' s/o Moreno Valley Fwy to Beaumont Crossroads lift station	-	New	15	3,125
BC-P2	New Capacity	W 4th St	From 275' w/o of Prosperity Way to 400' e/o Potrero Blvd	-	New	12	2,100
BC-P3	New Capacity	W 4th St	From 400' e/o Potrero Blvd to Potrero Blvd	-	New	15	375
BC-P4	New Capacity	W 4th St	From Potrero Blvd to 1,350' w/o Potrero Blvd	-	New	18	1,450
BC-P5	New Capacity	W 4th St	From 1,350' w/o Potrero Blvd to Beaumont Crossroads lift station	-	New	21	800
Force Main In	nprovements						
BC-FM1	New Force Main	W 4th St	From Beaumont Crossroads lift station to 100' e/o Nicholas Rd	-	New	16	9,175
BC-FM2	New Force Main	W 4th St	From Beaumont Crossroads lift station to 100' e/o Nicholas Rd	-	New	6	9,175
Lift Station Im	nprovements						
BC-LS	New Lift Station	Beaumont Crossroads	Lift Station		New	3 @ 2,3	50 gpm
Marshall Cr	reek Lift Station T	ributary Area					
Lift Station Im	provements						
MC-LS	Lift Station Replacement	Marshall Creek Lift Sta	tion		Replace	2 @ 1,70	00 gpm
Industrial P	ark Lift Station T	ributary Area					
Gravity Main	Improvements						
IP-P1	Future Capacity Increase	Risco Cir	From W 4th St to 425' s/o W 4th St	8	Replace	10	475
Lift Station Im	provements						
IP-LS	Lift Station Replacement	Industrial Park Lift Stat	tion		Replace	2 @ 30	0 gpm
Beaumont	Avenue South (N	ew) Lift Station Tribu	tary Area				
	Improvements						
BAS-P1	New Capacity	Beaumont Ave	From 1,200' n/o Laird Rd to 2,775' sw/o Laird Rd	-	New	12	4,125
BAS-P2	New Capacity	Beaumont Ave	From 2,775' sw/o Laird Rd to Beaumont Avenue lift station	-	New	15	875
Force Main In	nprovements						
BAS-FM1	New Force Main	Beaumont Ave	From Beaumont Avenue lift station to 2,450' s/o E 1st St	-	New	10	5,025

Wastewater Master Plan

					Pineli	ne Improvem	ELIMINAF ents
Improv. No.	Type of Improvement	Alignment	Limits	Existing Diameter	New/ Replace	Diameter	Length
Lift Station Im	provements			(in)		(in)	(ft)
BAS-LS	New Lift Station	Beaumont Avenue Sout	h Lift Station		New	3 @ 90	0 gpm
Wastewate	r Treatment Plar	nt Tributary Area					
Gravity Main I	mprovements						
WWTP-P1	Future Capacity Increase	Oak Valley Pkwy	From 550' w/o San Miguel Dr to 150' w/o San Miguel Dr	12	Replace	12	425
WWTP-P2	Existing Capacity Deficiency	Edgar Ave	From Oak Valley Pkwy to 575' s/o Oak Valley Pkwy	12	Replace	15	575
WWTP-P3	Future Capacity Increase	Luis Estrada Rd	From 400' se/o Veile Ave to Veile Ave	12	Replace	12	425
WWTP-P4	Future Capacity Increase	Minnesota Ave/W 4th St	From 525' n/o W 4th St to 600' w/o Minnesota Ave	24	Replace	30	1,125
WWTP-P5	Future Capacity Increase	ROW	From 4th St to 1,100' w/o Minnesota Ave	30	Replace	36	950
WWTP-P6	New Capacity	ROW	From 2,300 ne/o Highland Springs Ave to 1,300 e/o Highland Springs Ave	-	New	12	3,875
WWTP-P7	New Capacity	ROW	From 1,300' e/o Highland Springs Ave to Highland Springs Ave	-	New	15	1,300
WWTP-P8	Future Capacity Increase	Brookside Ave	From Highland Springs Ave to Orchard Heights Ave	8	Replace	15	2,650
WWTP-P9	Future Capacity Increase	Brookside Ave	From Orchard Heights Ave to Cherry Ave	8	Replace	15	2,700
WWTP-P10	Future Capacity Increase	Cherry Ave	From Brookside Ave to Cougar Way	8	Replace	15	2,650
WWTP-P11	Future Capacity Increase	Cherry Ave	From Cougar Way to Oak Valley Pkwy	8	Replace	15	2,675
WWTP-P12	Future Capacity Increase	Cherry Ave	From oak Valley Pkwy to Antonell Ct	10	Replace	15	1,700
WWTP-P13	Future Capacity Increase	Cherry Ave	From Antonell Ct to E 8th St	12	Replace	15	3,675
WWTP-P14	Future Capacity Increase	Illinois Ave	From E 8th St to E 6th St	12	Replace	15	1,175
WWTP-P15	Future Capacity Increase	E 6th St	From Illinois Ave to Pennsylvania Ave	15	Replace	18	700
WWTP-P16	Future Capacity Increase	Pennsylvania Ave	From E 6th St to 175' s/o Interstate 10	18	Replace	24	975
WWTP-P17	Future Capacity Increase	ROW	From Pennsylvania Ave to 75' w/o Beaumont Ave	18	Replace	30	3,800
WWTP-P18	Future Capacity Increase	ROW	From 125' n/o 3rd St to 400' e/o Beaumont Ave	10	Replace	10	125
WWTP-P19	Future Capacity Increase	ROW	From 3rd St to 400' e/o Beaumont Ave	10	Replace	10	175
WWTP-P20	Future Capacity Increase	ROW	From Rover Ln to 350' w/o Houstonia Ln	12	Replace	15	2,550
WWTP-P21	Future Capacity Increase	E 1st St	From Palm Ave to Beaumont Ave	24	Replace	30	1,600
WWTP-P22	Future Capacity Increase	E 1st st	From California Ave to Minnesota Ave	30	Replace	36	2,125
WWTP-P23	Future Capacity Increase	Minnesota Ave	From E 1st St to 575' n/o E 1st St	30	Replace	36	575
WWTP-P24	Future Capacity Increase	ROW	From 575' n/o E 1st St to 1,025' w/o Minnesota Ave	30	Replace	36	1,100
WWTP-P25	New Capacity	Beaumont Ave	From E 1st St to 1,275' n/o Laird Rd	-	New	21	2,475

Wastewater Master Plan

City of Beaumont

	ity of beautiont					PR	ELIMINAR
	Turne of				Pipeli	ne Improvem	ents
Improv. No.	Type of Improvement	Alignment	Limits	Existing Diameter	New/ Replace	Diameter	Length
				(in)		(in)	(ft)
Four Seaso	ns Lift Station Tri	butary Area					
Gravity Main	Improvements						
FS-P1	Future Capacity Increase	Highland Springs Ave	From E 6th St to 450' w/o Highland Springs Ave	10	Replace	12	1,225
FS-P2	Future Capacity Increase	Highland Springs Ave	From 550' n/o E 1st St to 100' s/o E 1st St	10	Replace	12	650
FS-P3	Future Capacity Increase	Highland Springs Ave	From 800' n/o Potrero Blvd to 50' s/o Potrero Blvd	12	Replace	15	850
FS-P4	Pipe Slope Reconstruction	Highland Springs Ave	From 100' n/o Crooked Creek to Crooked Creek	12	Replace	12	100
FS-P5	Future Capacity Increase	Highland Springs Ave	From 350' s/o Crooked Creek to 375' s/o Breckenridge Ave	15	Replace	18	1,525
FS-P6	Future Capacity Increase	Breckenridge Ave	From 75' w/o Highland Springs Ave to Highland Springs Ave	10	Replace	10	75
Lift Station In	nprovements						
FS-LS	Lift Station Replacement	Four Seasons Lift Statio	n		Replace	3 @ 1,39	50 gpm
A K E	DUP, INC.						2/12/202

Note:

1. Beaumont Crossroads 6-inch force main planned for replacement with 16-inch at buildout of tributary area.

- Lower Oak Valley: As documented on Table 7.3 the buildout flow requirement for the Lower Oak Valley lift station is 1,217 gpm. A new lift station is recommended for construction with three 625 gpm pumps, two duty and one standby, for a total lift station capacity of 1,875 gpm.
- Upper Oak Valley: As documented on Table 7.3 the buildout flow requirement for the Upper Oak Valley lift station is 3,634 gpm. A new lift station is recommended for construction with three 1,850 gpm pumps, two duty and one standby, for a total lift station capacity of 5,550 gpm.
- **Olivewood:** As documented on **Table 7.3** the buildout flow requirement for the Olivewood lift station is 612 gpm. A new lift station is recommended for construction with two 625 gpm pumps, one duty and one standby, for a total lift station capacity of 1,250 gpm.
- Industrial Park: As documented on Table 7.3 the buildout flow requirement for the Industrial Park lift station is 288 gpm. A new lift station is recommended for construction with two 300 gpm pumps, one duty and one standby, for a total lift station capacity of 600 gpm.
- **Beaumont Mesa:** As documented on **Table 7.3** the buildout flow requirement for the Beaumont Mesa lift station is 4,530 gpm. A new lift station is recommended for construction with two 1,500 gpm and two 3,500 gpm pumps, three duty and one standby, for a total lift station capacity of 10,000 gpm.
- **Marshall Creek:** As documented on **Table 7.3** the buildout flow requirement for the Marshall Creek lift station is 1,696 gpm. A new lift station is recommended for construction with two 1,700 gpm pumps, one duty and one standby, for a total lift station capacity of 3,400 gpm.
- Four Seasons: As documented on Table 7.3 the buildout flow requirement for the Four Seasons lift station is 2,616 gpm. A new lift station is recommended for construction with three 1,350 gpm pumps, two duty and one standby, for a total lift station capacity of 4,050 gpm.
- **Beaumont Ave South:** In order to convey the future flows from the South urban development, a new lift station is recommended. This lift station is planned to have three 900 gpm pumps, two duty and one standby, for a total lift station capacity of 2,700 gpm.
- **Beaumont Crossroads:** In order to convey the future flows from the Beaumont Crossroads, a new lift station is recommended. This lift station is planned to have three 2,350 gpm pumps, two duty and one standby, for a total lift station capacity of 7,050 gpm.

- **Brookside Ave:** In order to convey the future flows from north of Brookside Avenue and west of Interstate 10, a new lift station is recommended. This lift station is planned to have two 300 gpm pumps, one duty and one standby, for a total lift station capacity of 600 gpm.
- **Tukwet Canyon:** In order to convey future flows from Tukwet Canyon development, a new lift station is recommended. This lift station is planned to have three 375 gpm pumps, two duty and one standby, for a total lift station capacity of 1,125 gpm.

7.7.2 Force Main Improvements

This section documents the recommended force main capacity improvements.

- **BR-FM1:** Construct a new 6-inch force main in Brookside Avenue from future Brookside Avenue lift station to Deodar Drive.
- **BM-FM1:** Connect a new 16-inch force main connecting to the incomplete 16-inch force main in Potrero Boulevard and Western Knolls Avenue from Beaumont Mesa lift station to 1,300 feet west of Western Knolls Avenue.
- **BC-FM1:** Construct a new 16-inch force main in 4th Street from future Beaumont Crossroads lift station to Nicholas Road.
- **BC-FM2**: Construct a new 6-inch force main in 4th Street from future Beaumont Crossroads lift station to Nicholas Road.
- **BAS-FM1:** Construct a new 10-inch force main in Beaumont Avenue from future Beaumont Avenue lift station to approximately 2,450 feet south of 1st Street.

7.7.3 Gravity Main Improvements

This section documents the gravity main improvements. This section documents pipeline improvements within the City of Beaumont wastewater collection service area.

7.7.3.1 Lower Oak Valley

This section documents pipeline improvements within the Lower Oak Valley collection basin.

• LOV-P1: Replace existing 15-inch gravity main with a new 18-inch gravity main in Irwin Street from Floyd Circle to Palmer Avenue.

7.7.3.2 Upper Oak Valley

This section documents pipeline improvements within the Upper Oak Valley collection basin.

• **UOV-P1:** Replace existing 8-inch gravity main with a new 10-inch gravity main in Straightway Drive from Balata Street to 350 feet southwest of Balata Street.

- **UOV-P2:** Replace existing 8-inch gravity main with a new 12-inch gravity main in Apron Lane from Stableford Court to Oak Valley Parkway.
- **UOV-P3**: Replace existing 12-inch gravity main with a new 15-inch gravity main in Oak Valley Parkway from Apron Lane to 2,450 feet west of Apron Lane.

7.7.3.3 Olivewood

This section documents pipeline improvements within the Olivewood collection basin.

• **O-P1:** Replace existing 10-inch gravity main with a new 12-inch gravity main in Right-Of-Way from Artisan Place to 525 feet north of Artisan Place.

7.7.3.4 Brookside Avenue

This section documents pipeline improvements within the Brookside Avenue collection basin.

• **BR-P1:** Construct a new 8-inch gravity main in Brookside Avenue from 480 feet west of Deodar Drive to new Brookside Avenue lift station.

7.7.3.5 Beaumont Mesa

This section documents pipeline improvements within the Beaumont Mesa collection basin.

- **BM-P1:** Construct a new 8-inch gravity main in Right-Of-Way from 800 feet north of Monero Valley Freeway to 2,600 feet east of Potrero Boulevard.
- **BM-P2:** Construct a new 10-inch gravity main in Right-Of-Way from 2,600 feet east of Potrero Boulevard to 1,400 feet south of Oak Valley Parkway.
- **BM-P3:** Construct a new 15-inch gravity main in Right-Of-Way from 1,400 feet south of Oak Valley Parkway to Beaumont Mesa lift station.

7.7.3.6 Beaumont Crossroads

This section documents pipeline improvements within the Beaumont Crossroads collection basin.

- **BC-P1:** Construct a new 15-inch gravity main in 4th Street from 1,875 feet south of Monero Valley Freeway to Beaumont Crossroads lift station.
- **BC-P2:** Construct a new 12-inch gravity main in 4th Street from 275 feet west of Prosperity Way to 400 feet east of Potrero Boulevard.
- **BC-P3:** Construct a new 15-inch gravity main in 4th Street from 400 feet east of Potrero Boulevard to Potrero Boulevard.
- **BC-P4:** Construct a new 18-inch gravity main in 4th Street from Potrero Boulevard to 1,350 feet west of Potrero Boulevard.

• **BC-P5:** Construct a new 21-inch gravity main in 4th Street from 1,350 feet west of Potrero Boulevard to future Beaumont Crossroads lift station.

7.7.3.7 Industrial Park

This section documents pipeline improvements within the Industrial Park collection basin.

• **IP-P1:** Replace existing 8-inch gravity main with a new 10-inch gravity main in Risco Circle from 4th Street to 425 feet south of 4th Street.

7.7.3.8 Beaumont Avenue South

This section documents pipeline improvements within the Beaumont Avenue South collection basin.

- **BAS-P1:** Construct a new 12-inch gravity main in Beaumont Avenue from 1,200 feet north of Laird Road to 2,775 southwest of Laird Road.
- **BAS-P2:** Construct a new 15-inch gravity main in Beaumont Avenue from 2,775 feet southwest of Laird Road to future Beaumont Avenue South lift station.

7.7.3.9 Wastewater Treatment Plant

This section documents pipeline improvements within the Wastewater Treatment Plant collection basin.

- **WWTP-P1**: Reconstruct existing 12-inch gravity main with a steeper slope in Oak Valley Parkway from 550 feet west of San Miguel Drive to 150 feet west of San Miguel Drive.
- **WWTP-P2:** Replace existing 12-inch gravity main with a new 15-inch gravity main in Edgar Avenue from Oak Valley Parkway to 575 feet south of Oak Valley Parkway.
- **WWTP-P3:** Reconstruct existing 12-inch gravity main with a steeper slope in Luis Estrada Road from 400 feet southeast of Veile Avenue to Veile Avenue. Prior to project initialization, it is recommended that this improvement section be surveyed by a licensed professional surveyor to determine the feasibility of reconstructing the pipe slope to meet necessary grade and corresponding capacity requirements.
- WWTP-P4: Replace existing 24-inch gravity main with a new 30-inch gravity main in Minnesota Avenue and 4th Street from 525 feet north of 4th Street to 600 feet west of Minnesota Avenue.
- **WWTP-P5**: Replace existing 30-inch gravity main with a new 36-inch gravity main in Right-Of-Way from 4th Street to 1,100 feet west of Minnesota Avenue.
- **WWTP-P6:** Construct a new 12-inch gravity main in Right-Of-Way from 2,300 feet northeast of Highland Springs Avenue to 1,300 feet east of Highland Springs Avenue.

- **WWTP-P7:** Construct a new 15-inch gravity main in Right-Of-Way from 1,300 feet east of Highland Springs Avenue to Highland Springs Avenue.
- **WWTP-P8**: Replace existing 8-inch gravity main with a new 15-inch gravity main in Brookside Avenue from Highland Springs Avenue to Orchard Heights Avenue.
- **WWTP-P9**: Replace existing 8-inch gravity main with a new 15-inch gravity main in Brookside Avenue from Orchard Heights Avenue to Cherry Avenue.
- **WWTP-P10:** Replace existing 8-inch gravity main with a new 15-inch gravity main in Cherry Avenue from Brookside Avenue to Cougar Way.
- **WWTP-P11:** Replace existing 8-inch gravity main with a new 15-inch gravity main in Cherry Avenue from Cougar Way to Oak Valley Parkway.
- **WWTP-P12**: Replace existing 10-inch gravity main with a new 15-inch gravity main in Cherry Avenue from Oak Valley Parkway to Antonell Court.
- **WWTP-P13:** Replace existing 12-inch gravity main with a new 15-inch gravity main in Cherry Avenue from Antonell Court 8th Street.
- **WWTP-P14:** Replace existing 12-inch gravity main with a new 15-inch gravity main in Illinois Avenue from 8th Street to 6th Street.
- **WWTP-P15:** Replace existing 15-inch gravity main with a new 18-inch gravity main in 6th Street from Illinois Avenue to Pennsylvania Avenue.
- **WWTP-P16:** Replace existing 18-inch gravity main with a new 24-inch gravity main in Pennsylvania Avenue from 6th Street to 175 feet south of Interstate 10.
- **WWTP-P17:** Replace existing 18-inch gravity main with a new 30-inch gravity main in Right-Of-Way from Pennsylvania Avenue to 75 feet west of Beaumont Avenue.
- **WWTP-P18:** Reconstruct existing 10-inch gravity main with a steeper slope in Right-Of-Way from 125 feet north of 3rd Street to 400 feet east of Beaumont Avenue. Prior to project initialization, it is recommended that this improvement section be surveyed by a licensed professional surveyor to determine the feasibility of reconstructing the pipe slope to meet necessary grade and corresponding capacity requirements.
- **WWTP-P19:** Reconstruct existing 10-inch gravity main with a steeper slope in Right-Of-Way from 3rd Street to 400 feet east of Beaumont Avenue. Prior to project initialization, it is recommended that this improvement section be surveyed by a licensed professional surveyor to determine the feasibility of reconstructing the pipe slope to meet necessary grade and corresponding capacity requirements.

- **WWTP-P20**: Replace existing 12-inch gravity main with a new 15-inch gravity main in Right-Of-Way from Rover Lane to 350 feet west of Houstonia Lane.
- **WWTP-P21**: Replace existing 24-inch gravity main with a new 30-inch gravity main in 1st Street from Palm Avenue to Beaumont Avenue.
- **WWTP-P22:** Replace existing 30-inch gravity main with a new 36-inch gravity main in 1st Street from California Avenue to Minnesota Avenue.
- **WWTP-P23:** Replace existing 30-inch gravity main with a new 36-inch gravity main in Minnesota Avenue from 1st Street to 575 feet north of 1st Street.
- **WWTP-P24**: Replace existing 30-inch gravity main with a new 36-inch gravity main in Right-Of-Way from 575 feet north of 1st Street to 1,025 feet west of Minnesota Avenue.
- **WWTP-P25**: Construct a new 21-inch gravity main in Beaumont Avenue from 1st Street to 1,275 feet north of Laird Road.

7.7.3.10 Four Seasons

This section documents pipeline improvements within the Four Seasons collection basin.

- **FS-P1:** Replace existing 10-inch gravity main with a new 12-inch gravity main in Highlands Springs Avenue from 6th Street to 450 feet west of Highland Springs Avenue.
- **FS-P2:** Replace existing 10-inch gravity main with a new 12-inch gravity main in Highlands Springs Avenue from 550 feet north of 1st Street to 100 feet south of 1st Street.
- **FS-P3:** Replace existing 12-inch gravity main with a new 15-inch gravity main in Highlands Springs Avenue from 800 feet north of Potrero Boulevard to 50 feet south of Potrero Boulevard.
- **FS-P4**: Reconstruct existing 12-inch gravity main with a steeper slope in Highland Springs Avenue from 100 feet north of Crooked Creek to Crooked Creek. Prior to project initialization, it is recommended that this improvement section be surveyed by a licensed professional surveyor to determine the feasibility of reconstructing the pipe slope to meet necessary grade and corresponding capacity requirements.
- **FS-P5:** Replace existing 15-inch gravity main with a new 18-inch gravity main in Highlands Springs Avenue from 350 feet south of Crooked Creek to 375 feet south of Breckenridge Avenue.
- **FS-P6**: Reconstruct existing 10-inch gravity main with a steeper slope in Breckenridge Avenue from 75 feet west of Highland Spring Avenue to Highland Springs Avenue. Prior to project initialization, it is recommended that this improvement section be surveyed by a

licensed professional surveyor to determine the feasibility of reconstructing the pipe slope to meet necessary grade and corresponding capacity requirements.

City of Beaumont

CHAPTER 8 - CAPITAL IMPROVEMENT PROGRAM

This chapter provides a summary of the recommended Capital Improvement Program (CIP) for the City's wastewater collection system. The program is based on the evaluation of the City's wastewater collection system and on the recommended projects described in the previous chapters. The CIP has been prepared to assist the City in planning and constructing the collection system improvements through the ultimate buildout scenario. This chapter also presents the cost criteria and methodologies for developing the capacity improvement costs.

8.1 COST ESTIMATE ACCURACY

Cost estimates presented in the capacity improvement costs were prepared for general master planning purposes and, where relevant, for further project evaluation. Final costs of a project will depend on several factors including the final project scope, costs of labor and material, and market conditions during construction.

The Association for the Advancement of Cost Engineering (AACE International), formerly known as the American Association of Cost Engineers, has defined three classifications. These classifications are presented in order of increasing accuracy: Order of Magnitude, Budget, and Definitive.

• Order of Magnitude Estimate. This classification is also known as an "original estimate", "study estimate", or "preliminary estimate", and is generally intended for master plans and studies.

This estimate is not supported with detailed engineering data about the specific project, and its accuracy is dependent on historical data and cost indices. It is generally expected that this estimate would be accurate within -30 percent to +50 percent.

- **Budget Estimate.** This classification is also known as an "official estimate" and generally intended for pre-design studies. This estimate is prepared to include flow sheets and equipment layouts and details. It is generally expected that this estimate would be accurate within -15 percent to +30 percent.
- **Definitive Estimate.** This classification is also known as a "final estimate" and prepared during the time of contract bidding. The data includes complete plot plans and elevations, and equipment data sheets, and complete specifications. It is generally expected that this estimate would be accurate within -5 percent to +15 percent.

Costs developed in this study should be considered "Order of Magnitude" and have an expected accuracy range of -30 percent and +50 percent.

8.2 COST ESTIMATE METHODOLOGY

Cost estimates presented in this chapter are opinions of probable construction and other relevant costs developed from several sources including cost curves, Akel experience on other master planning projects, and input from District staff on the development cost sharing. Where appropriate, costs were escalated to reflect the more current Engineering News Records (ENR) Construction Cost Index (CCI).

This section documents the unit costs used in developing the opinion of probable construction costs, the Construction Cost Index, and markups to account for construction contingency and other project related costs.

8.2.1 Unit Costs

The unit cost estimates used in developing the Capital Improvement Program are summarized on **Table 8.1**. Wastewater pipeline unit costs are based on length of pipe per chosen diameter. Lift station costs are based on capacity, per million gallons per day (MGD). The unit costs are intended for developing the Order of Magnitude estimate, and do not account for site specific conditions, labor or material costs during the time of construction, final project scope, implementation schedule, detailed utility and topography surveys, investigation of alternative routings for pipes, and other various factors. The capital improvement program included in this report accounts for construction and project-related contingencies as described in this chapter.

8.2.2 Construction Cost Index

Costs estimated in this study are adjusted utilizing the Engineering News Record (ENR) Construction Cost Index (CCI), which is widely used in the engineering and construction industries.

The costs in this Wastewater Master Plan were benchmarked using a 20-City national average ENR CCI of 11,849, reflecting a date of April 2021.

8.2.3 Land Acquisition

Construction of pipelines is assumed to generally be within existing or future street right-of-ways. Lift station land acquisition costs are included in the lift station unit costs.

8.2.4 Construction Contingency Allowance

Knowledge about site-specific conditions for each proposed project is limited at the master planning stage; therefore construction contingencies were used. The estimated construction costs in this master plan include a **20 percent** contingency allowance to account for unforeseen events and unknown field conditions.

Table 8.1 Unit Costs

Wastewater Master Plan

City of Beaumont

	PRELIMINARY
Pipeline	
Gravity Main ¹	
Pipe Size	Cost ¹
(in)	(\$/lineal foot)
8	\$191
10	\$200
12	\$208
15	\$230
18	\$247
21	\$331
24	\$396
27	\$468
30	\$526
36	\$670
Force Main ¹	
6	\$216
8	\$264
10	\$278
16	\$376
Operational and Maintenance ²	
Sewer Pipeline CCTV	\$2.10
Sewer Pipeline Cleaning	\$1.80
Lift Station ³	
Estimated Lift Station Project Co 314,097*Q + 365,718, where	
ENGINEERING GROUP, INC.	5/21/2021

Notes :

- 1. Unit costs indexed using the Engineering News Record (ENR) Construction Cost Index of 11,849 for April 2021.
- 2. Sewer pipeline operational and maintenance costs based on Akel Engineering Group experience on similar projects.
- 3. Lift Station costs based on Akel Engineering Group experience on similar projects and escalated using the Engineering News Record (ENR) Construction Cost Index of 11,849 for April 2021.

8.2.5 Project Related Costs

The capital improvement costs also account for project-related costs, comprising of engineering design, project administration (developer and District staff), construction management and inspection, and legal costs. The project related costs in this master plan were estimated by applying an additional **30 percent** to the estimated construction costs.

8.3 LIFT STATION CONDITION ASSESSMENT COSTS

The lift station condition assessment, completed by V&A, included condition improvement recommendations for deficiencies identified during the assessment. An estimated opinion of probable costs for these improvements was prepared and submitted to City staff for review and approval. The recommended improvements and associated costs are documented in Table 8.2.

8.4 CAPITAL IMPROVEMENT PROGRAM

This section documents the capital improvement program, including estimated costs and recommended construction phasing.

8.4.1 Capital Improvement Costs

The Capital Improvement Program costs for the projects identified in this master plan for mitigating existing deficiencies and for servicing anticipated future growth throughout the City are summarized on Table 8.3.

Each improvement was assigned a unique coded identifier associated with the improvement type and is summarized graphically on **Figure 8.1**. The estimated construction costs include the baseline costs plus **20 percent** contingency allowance to account for unforeseen events and unknown filed conditions, as described in a previous section. Capital improvement costs include the estimated construction costs plus **30 percent** projected-related costs (engineering design, project administration, construction management and inspection, and legal costs).

Capital Improvement project sheets are provided in **Appendix H**. These project sheets document the location of the recommended improvements as well as providing a description of the improvement and the capital improvement costs.

8.4.2 Pipelines

The recommended pipeline improvements are grouped by collection basin and listed on **Table 8.3**. Each improvement includes a general description of the street alignment and limits as well as existing pipe diameter and length.

The Capital Improvement Program generally includes the following three types of improvements:

• **Replacement Pipeline, Existing Capacity Deficiency.** An existing pipeline is recommended for replacement to mitigate an existing system deficiency. This type of

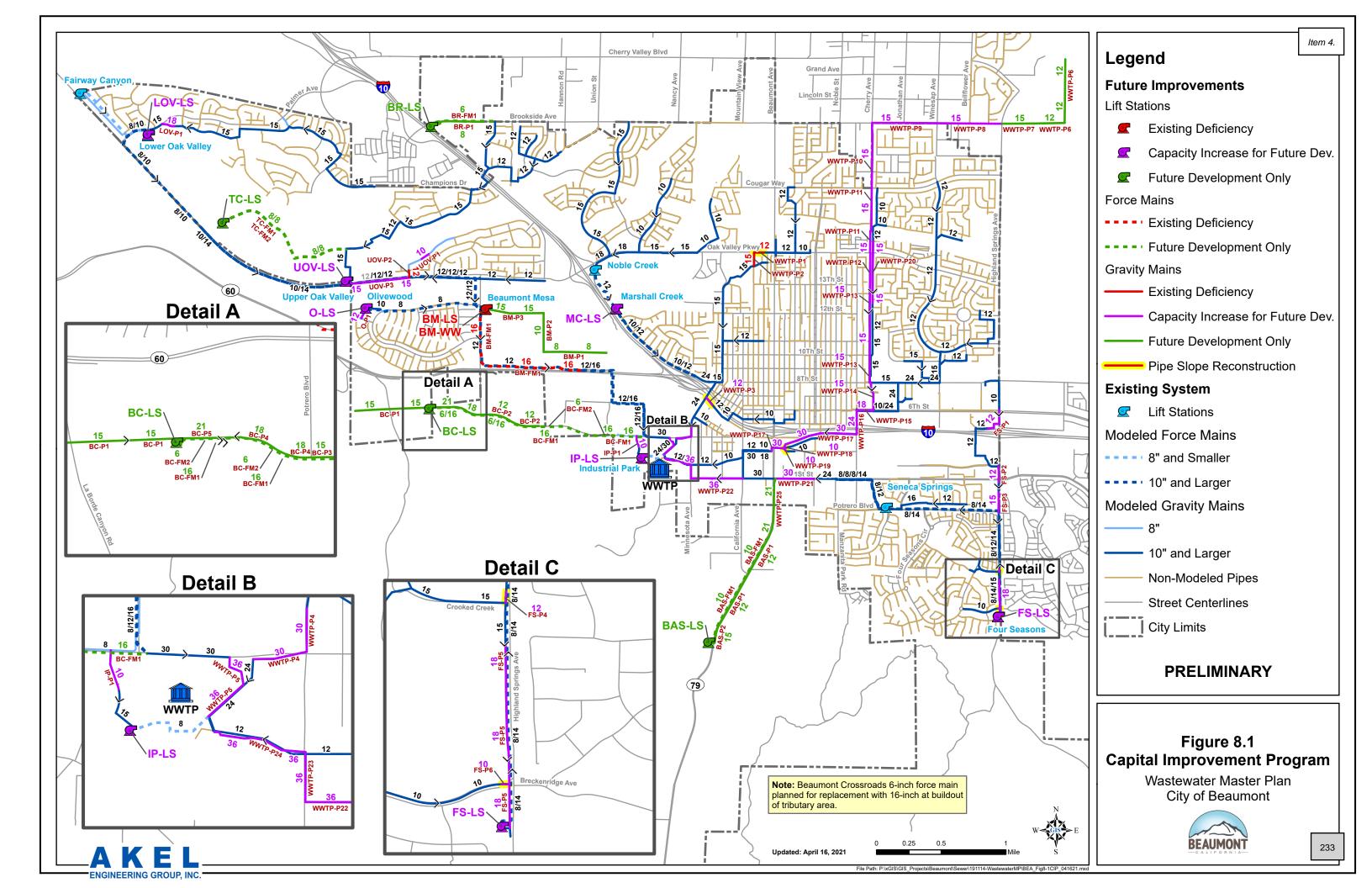


Table 8.2 Lift Station Condition Assessment Improvements

Wastewater Master Plan

							1		PRELIMINAR'
			Recommended		Infrastructure Costs		Baseline	Estimated	Capital
Lift Station	Specific Facility	Lift Station Component	Timeline	Unit Cost	Unit	Amount	Construction Cost	Construction Cost ¹	Improvement Cost ²
				(\$/unit)		(unit)			
Fairway Car	nyon								
FC-1	Pump	Repair leak from Pump #2	Immediately				0	0	0
FC-2	Wet Well	Apply mortar	2 to 5 years	30	Square Foot	30	900	1,100	1,500
FC-3	Dry Well	Repair Liner	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
FC-4	Dry Well	Touch up pipe coating	2 to 5 years	30	Square Foot	130	3,900	4,700	6,200
				Subtotal - Fair	rway Canyon Lift Statio	n Improvements	7,800	9,400	12,400
Lower Oak	Valley								
LOV-1	Wet Well	Replace pump discharge piping	Immediately	5,200	Lump	-	5,200	6,300	8,200
LOV-2	Concrete	Monitor the state of degradation	2 to 5 years		No cost		0	0	0
LOV-3	Concrete	Repair cracked/broken concrete	2 to 5 years	2,600	Lump	-	2,600	3,200	4,200
LOV-4	Liner	Bond liner to concrete	2 to 5 years	30	Square Foot	30	900	1,100	1,500
LOV-5	Piping	Re-coat piping	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
				Subtotal - Lowe	er Oak Valley Lift Statio	n Improvements	11,700	14,200	18,600
Upper Oak	Valley								
UOV-1	Wet Well	Replace pump discharge piping	Immediately	5,200	Lump	-	5,200	6,300	8,200
UOV-2	Connection	Replace threaded tap connection	Immediately	1,000	Lump	-	1,000	1,200	1,600
UOV-3	Concrete	Repair cracked/broken concrete	2 to 5 years	2,600	Lump	-	2,600	3,200	4,200
UOV-4	Bypass Manhole	Replace liner	2 to 5 years	30	Square Foot	500	15,000	18,000	23,400
UOV-5	Piping	Re-coat piping	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
				Subtotal - Uppe	er Oak Valley Lift Statio	n Improvements	26,800	32,300	42,100
Olivewood									
0-1	Piping	New coating	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
				Subtotal	- Olivewood Lift Statio	n Improvements	3,000	3,600	4,700
Beaumont I	Viesa								
BM-1	Piping	New coating	Immediately	30	Square Foot	100	3,000	3,600	4,700
BM-2	Concrete	Repair cracked/broken concrete	2 to 5 years	2,600	Lump	-	2,600	3,200	4,200
BM-3	Wet Well	Repair liner	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
BM-4	Manhole	Replace liner	2 to 5 years	45	Square Foot	500	22,500	27,000	35,100
BM-5	Dry Well	Touch up pipe coating	2 to 5 years	30	Square Foot	130	3,900	4,700	6,200

Table 8.2 Lift Station Condition Assessment Improvements

Wastewater Master Plan

City of Beaumont

					Infrastructure Costs			Estimated	Capital
Lift Station	Specific Facility	Lift Station Component	Recommended Timeline	Unit Cost	Unit	Amount	Baseline Construction Cost	Construction Cost ¹	Improvemer Cost ²
				(\$/unit)		(unit)			
BM-6	Wet Well	Coat the inlet pipe	2 to 5 years	30	Square Foot	130	3,900	4,700	6,200
				Subtotal - Beau	umont Mesa Lift Statio	n Improvements	38,900	46,800	61,100
Noble Creek									
NC-1	Wet Well	Replace pump discharge piping	2 to 5 years	5,200	Lump	-	5,200	6,300	8,200
NC-2	Piping	Re-coat piping	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
				Subtotal -	Noble Creek Lift Statio	n Improvements	8,200	9,900	12,900
Marshall Cre	eek								
MC-1	Wet Well	Replace pump discharge piping	Immediately	5,200	Lump	-	5,200	6,300	8,200
MC-2	Piping	Re-coat piping	Immediately	30	Square Foot	100	3,000	3,600	4,700
MC-3	Manhole	Patch-repair liner	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
MC-4	Manhole	Repair/replace lid and cover frame	2 to 5 years	1,500	Lump	-	1,500	1,800	2,400
				Subtotal - Ma	rshall Creek Lift Statio	n Improvements	12,700	15,300	20,000
Cooper Cree	•k								
CC-1	Piping	Re-coat piping	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
				Subtotal - C	ooper Creek Lift Statio	n Improvements	3,000	3,600	4,700
Seneca Sprii	ngs								
SS-1	Couplings	Replace couplings showing damage	Immediately	1,500	Lump	-	1,500	1,800	2,400
SS-2	Concrete	Monitor state of corrosion	2 to 5 years		No cost		0	0	0
SS-3	Piping	Touch up pipe coating	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
				Subtotal - Se	neca Springs Lift Statio	n Improvements	4,500	5,400	7,100
Four Season	s								
FS-1	Manhole	Patch-repair liner	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
FS-2	Piping	Touch up pipe coating	2 to 5 years	30	Square Foot	100	3,000	3,600	4,700
FS-3	Couplings	Replace couplings showing damage	2 to 5 years	1,500	Lump	-	1,500	1,800	2,400
				Subtotal - F	our Seasons Lift Statio	n Improvements	7,500	9,000	11,800
Total Costs									
							124,100	149,500	195,400

ENGINEERING GROUP, INC. Notes:

1. Estimated Construction costs include 20 percent of baseline construction costs to account for unforeseen events and unknown field conditions.

2. Capital Improvement Costs also include an additional 30 percent of the estimated construction costs to account for administration, construction management, and legal costs.

Item 4.

Wastewater Master Plan

	City of Beaumon	-												PRELIMINAR
	Type of				Improvemer	nts Details		Infrastruc	ture Costs	Baseline Constr.	Estimated Const.	Capital Impro.	Future Flow	
mprov. No.	Improvement	Alignment	Limits	Existing Diameter	New/ Replace	Diameter	Length		Infr. Cost	Cost	Cost ¹	Cost ^{2,3}	Service Location	Construction Trigger ⁴
				(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
Lower Oak	Valley Lift Statio	n Tributary Area												
Gravity Mair	n Improvements												1	
LOV-P1	Future Capacity Increase	Irwin St	From Floyd Cir to Palmer Ave	15	Replace	18	525	247	129,621	129,700	155,700	202,500	Within City Limit	Approximately 200 EDUs
Lift Station I	mprovements													
LOV-LS	Lift Station Replacement	Lower Oak Valley Lift St	ation	-	Replace	3 @ 62	5 gpm	-	1,284,238	1,284,300	1,541,200	2,003,600	Within City Limit	Approximately 260 EDUs
				Subtot	al - Lower Oak	Valley Lift St	ation Tribu	itary Area Im	provements	1,414,000	1,696,900	2,206,100		
Tukwet Car	nyon (New) Lift S	tation Tributary Area		I				I					1	
Force Main I	mprovements													
TC-FM1	New Force Main	Sorenstam Dr/Price St	From Tukwet Canyon lift station to approx. 1,000' n/o Upper Oak Valley	-	New	8	6,250	264	1,652,656	1,652,700	1,983,300	2,578,300	Within City Limit	As Development Occurs
TC-FM2	New Force Main	Sorenstam Dr/Price St	lift station From Tukwet Canyon lift station to approx. 1,000' n/o Upper Oak Valley lift station	-	New	8	6,250	264	1,652,656	1,652,700	1,983,300	2,578,300	Within City Limit	As Development Occurs
Lift Station I	mprovements		int station	I				I						
TC-LS	New Lift Station	Tukwet Canyon Lift Stat	ion	-	New	3 @ 37	5 gpm	-	899,920	900,000	1,080,000	1,404,000	Within City Limit	As Development Occurs
				Subtotal - T	ukwet Canyor	n (New) Lift St	ation Tribu	itary Area Im	provements	4,205,400	5,046,600	6,560,600		
Upper Oak	Valley Lift Statio	n Tributary Area		ļ				1					1	
Gravity Mair	n Improvements													
UOV-P1	Future Capacity Increase	Straightaway Dr	From Balata St to 350' sw/o Balata St	8	Replace	10	350	200	69,910	70,000	84,000	109,200	Within City Limit	Approximately 70 EDUs
UOV-P2	Existing Capacity Deficiency	Apron Ln	From Stableford Ct to Oak Valley Pkwy	8	Replace	12	300	208	62,342	62,400	74,900	97,400	Within City Limit	FY 2023/24
UOV-P3	Future Capacity Increase	Oak Valley Pkwy	From Apron Ln to 2,450' w/o Apron Ln	12	Replace	15	2,500	230	575,740	575,800	691,000	898,300	Within City Limit	Approximately 1,360 EDUs
Lift Station I	mprovements													
UOV-LS	Lift Station Replacement	Upper Oak Valley Lift St	ation	-	Replace	3 @ 1,8	50 gpm	-	3,493,305	3,493,400	4,192,100	5,449,800	Within City Limit	Approxiamtely 2,360 EDUs
				Subtot	al - Upper Oak	Valley Lift St	ation Tribu	tary Area Im	provements	4,201,600	5,042,000	6,554,700		
Olivewood	Lift Station Tribu	tary Area								1			1	
Gravity Mair	n Improvements													
O-P1	Future Capacity Increase	ROW	From Artisan PI to approx. 500' n/o Artisan PI	10	Replace	12	525	208	109,099	109,100	131,000	170,300	Within City Limit	Approximately 750 EDUs
Lift Station I	mprovements													
O-LS	Lift Station Replacement	Olivewood Lift Station		-	Replace	2 @ 65	0 gpm	-	987,577	987,600	1,185,200	1,540,800	Within City Limit	Approximately 710 EDUs
					Subtotal - Oliv	ewood Lift St	ation Tribu	tary Area Im	provements	1,096,700	1,316,200	1,711,100		

Wastewater Master Plan

	City of Beaumor							1		1				PRELIMINAR
	Type of				Improveme	nts Details		Infrastruc	cture Costs	Baseline Constr	Estimated Const.	Capital Impro.	Future Flow	
Improv. No.	Improvement	Alignment	Limits	Existing Diameter	New/ Replace	Diameter	Length	Unit Cost	Infr. Cost	Cost	Cost ¹	Cost ^{2,3}	Service Location	Construction Trigger ⁴
Brookside	Avenue (New) Li	ft Station Tributary A	rea	(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
	n Improvements													
BR-P1	New Capacity	Brookside Ave	From 480' w/o Deodar Dr to	-	New	8	2,200	191	420,656	420,700	504,900	656,400	Within City Limit	As Development Occurs
	Improvements		Brookside Ave lift station			C C	_)_00		,	,		,		
BR-FM1	New Force Main	Brookside Ave	From Brookside Ave lift station to Deodar Dr	-	New	6	2,825	216	609,832	609,900	731,900	951,500	Within City Limit	As Development Occurs
Lift Station	Improvements			1						1			1	
BR-LS	New Lift Station	Brookside Ave Lift Sta	ation	-	New	2 @ 30	0 gpm	-	644,313	644,400	773,300	1,005,300	Within City Limit	As Development Occurs
			S	subtotal - Broo	okside Avenue	e (New) Lift St	ation Tribu	utary Area Im	provements	1,675,000	2,010,100	2,613,200		
Beaumont	Mesa Lift Statio	n Tributary Area		1				T						
	n Improvements													
BM-P1	New Capacity	ROW	From 800' n/o Monero Valley Fwy to 2,600' e/o Potrero Blvd	-	New	8	2,575	191	492,359	492,400	590,900	768,200	Within City Limit	As Development Occurs
BM-P2	New Capacity	ROW	From 2,600' e/o Potrero Blvd to 1,400' s/o Oak Valley Pkwy	-	New	10	1,600	200	319,588	319,600	383,600	498,700	Within City Limit	As Development Occurs
BM-P3	New Capacity	ROW	From 1,400' s/o Oak Valley Pkwy to Beaumont Mesa lift station	-	New	15	2,350	230	541,196	541,200	649,500	844,400	Within City Limit	As Development Occurs
Force Main	Improvements ⁵			1						1				
BM-FM1	Force Main Des	ign and Pump Design		-	New			-	-	-	-	450,000	Within City Limit	FY 2021/22
BM-FM1	New Force Main	Potrero Blvd/Wester Knolls Ave	n From Beaumont Mesa lift station to 1,300' w/o Western Knolls Ave	-	New	16	6,500	-	-	-	-	4,000,000	Within City Limit	FY 2022/23
Lift Station	Improvements ⁵							1		1				
BM-LS	Pump Replacen	nent/Addition Construct	tion	-	New	2 @ 3,5) 2 @ 1,5)		-	-	-	-	750,000	Within City Limit	FY 2022/23
BM-WW	Wet Well Desig	n		-	New			-	-	-	-	400,000	Within City Limit	FY 2021/22
BM-WW	New Wet Well			-	New			-	-	-	-	4,000,000	Within City Limit	FY 2024/25
				Subto	tal - Beaumor	nt Mesa Lift Si	ation Tribu	utary Area Im	provements	1,353,200	1,624,000	11,711,300		
Beaumont	Crossroads (New	v) Lift Station Tributa	ry Area	I				1						
Gravity Mai	n Improvements									1				
BC-P1	New Capacity	W 4th St	From 1,875' s/o Moreno Valley Fwy to Beaumont Crossroads lift station	-	New	15	3,125	230	719,676	719,700	863,700	1,122,900	Within City Limit	As Development Occurs
BC-P2	New Capacity	W 4th St	From 275' w/o of Prosperity Way to 400' e/o Potrero Blvd	-	New	12	2,100	208	436,397	436,400	523,700	680,900	With Annexation	As Development Occurs
BC-P3	New Capacity	W 4th St	From 400' e/o Potrero Blvd to Potrero Blvd	-	New	15	375	230	86,361	86,400	103,700	134,900	With Annexation	As Development Occurs
BC-P4	New Capacity	W 4th St	From Potrero Blvd to 1,350' w/o Potrero Blvd	-	New	18	1,450	247	358,001	358,100	429,800	558,800	With Annexation	As Development Occurs
BC-P5	New Capacity	W 4th St	From 1,350' w/o Potrero Blvd to Beaumont Crossroads lift station	-	New	21	800	331	264,625	264,700	317,700	413,100	With Annexation	As Development Occurs

Wastewater Master Plan

City of Beaumont

					Improveme	nts Details		Infrastruc	ture Costs					
mprov. No.	Type of Improvement	Alignment	Limits	Existing Diameter	New/ Replace	Diameter	Length		Infr. Cost	Baseline Constr. Cost	Estimated Const. Cost ¹	Capital Impro. Cost ^{2,3}	Future Flow Service Location	Construction Trigger ⁴
				(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
Force Main	Improvements													
BC-FM1	New Force Main	W 4th St	From Beaumont Crossroads lift station to 100' e/o Nicholas Rd	-	New	16	9,175	376	3,447,614	3,447,700	4,137,300	5,378,500	With Annexation	As Development Occurs
BC-FM2	New Force Main	W 4th St	From Beaumont Crossroads lift station to 100' e/o Nicholas Rd	-	New	6	9,175	216	1,980,605	1,980,700	2,376,900	3,090,000	With Annexation	As Development Occurs
Lift Station I	mprovements							1					1	
BC-LS	New Lift Station	Beaumont Crossroads	Lift Station	-	New	3 @ 2,3	50 gpm	-	4,550,536	4,550,600	5,460,800	7,099,100	With Annexation	As Development Occurs
			Subt	otal - Beaumo	ont Crossroad	s (New) Lift S	tation Tribu	utary Area Im	provements	11,844,300	14,213,600	18,478,200		
Marshall C	reek Lift Station T	ributary Area		I				1						
Lift Station I	mprovements													
MC-LS	Lift Station Replacement	Marshall Creek Lift Sta	ition	-	Replace	2 @ 1,7	00 gpm	-	2,135,215	2,135,300	2,562,400	3,331,200	Within City Limit	Approximately 1,200 EDUs
				Subt	otal - Marsha	ll Creek Lift S	tation Tribu	utary Area Im	provements	2,135,300	2,562,400	3,331,200		
Industrial F	Park Lift Station Tr	ibutary Area		I				1						
Gravity Mai	n Improvements													
IP-P1	Future Capacity Increase	Risco Cir	From W 4th St to 425' s/o W 4th St	8	Replace	10	475	200	94,878	94,900	113,900	148,100	Within City Limit	Approximately 190 EDUs
Lift Station I	mprovements													
IP-LS	Lift Station Replacement	Industrial Park Lift Stat	tion	-	Replace	2@30	10 gpm	-	644,313	644,400	773,300	1,005,300	Within City Limit	Approximately 20 EDUs
				Subt	total - Industi	ial Park Lift S	tation Tribu	utary Area Im	provements	739,300	887,200	1,153,400		
Beaumont	Avenue South (Ne	ew) Lift Station Tribu	tary Area											
Gravity Mai	n Improvements													
BAS-P1	New Capacity	Beaumont Ave	From 1,200' n/o Laird Rd to 2,775' sw/o Laird Rd	-	New	12	4,125	208	857,209	857,300	1,028,800	1,337,500	With Annexation	As Development Occurs
BAS-P2	New Capacity	Beaumont Ave	From 2,775' sw/o Laird Rd to Beaumont Avenue lift station	-	New	15	875	230	201,509	201,600	242,000	314,600	With Annexation	As Development Occurs
Force Main	Improvements							1					1	
BAS-FM1	New Force Main	Beaumont Ave	From Beaumont Avenue lift station to 2,450' s/o E 1st St	-	New	10	5,025	278	1,398,669	1,398,700	1,678,500	2,182,100	With Annexation	As Development Occurs
Lift Station I	mprovements							_					1	
BAS-LS	New Lift Station	Beaumont Avenue Sou	uth Lift Station	-	New	3 @ 90	10 gpm	-	1,733,029	1,733,100	2,079,800	2,703,800	With Annexation	As Development Occurs
			Subtota	l - Beaumont	Avenue Sout	h (New) Lift S	tation Tribu	utary Area Im	provements	4,190,700	5,029,100	6,538,000		
Wastewate	er Treatment Plan	t Tributary Area												
Gravity Mai	n Improvements													
WWTP-P1	Future Capacity Increase	Oak Valley Pkwy	From 550' w/o San Miguel Dr to 150' w/o San Miguel Dr	12	Replace	12	425	208	88,319	88,400	106,100	138,000	Within City Limit	Approximately 370 EDUs

PRELIMINARY

Wastewater Master Plan

City of Beaumont

														PRELIMINARY
	Type of				Improvemer	ts Details		Infrastruc	ture Costs	Baseline Constr	Estimated Const.	Capital Impro.	Future Flow	
Improv. No.	Improvement	Alignment	Limits	Existing Diameter	New/ Replace	Diameter	Length	Unit Cost	Infr. Cost	Cost	Cost ¹	Cost ^{2,3}	Service Location	Construction Trigger ⁴
				(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
WWTP-P2	Existing Capacity Deficiency	Edgar Ave	From Oak Valley Pkwy to 575' s/o Oak Valley Pkwy	12	Replace	15	575	230	132,420	132,500	159,000	206,700	Within City Limit	FY 2022/23
WWTP-P3	Future Capacity Increase	Luis Estrada Rd	From 400' se/o Veile Ave to Veile Ave	12	Replace	12	425	208	88,319	88,400	106,100	138,000	Within City Limit	Approximately 3,830 EDUs
WWTP-P4	Future Capacity Increase	Minnesota Ave/W 4th St	From 525' n/o W 4th St to 600' w/o Minnesota Ave	24	Replace	30	1,125	526	592,178	592,200	710,700	924,000	Within City Limit	Approximately 5,890 EDUs
WWTP-P5	Future Capacity Increase	ROW	From 4th St to 1,100' w/o Minnesota Ave	30	Replace	36	950	670	636,064	636,100	763,400	992,500	Within City Limit	Approximately 8,820 EDUs
WWTP-P6	New Capacity	ROW	From 2,300 ne/o Highland Springs Ave to 1,300 e/o Highland Springs Ave	-	New	12	3,875	208	805,257	805,300	966,400	1,256,400	With Annexation	As Development Occurs
WWTP-P7	New Capacity	ROW	From 1,300' e/o Highland Springs Ave to Highland Springs Ave	-	New	15	1,300	230	299,385	299,400	359,300	467,100	With Annexation	As Development Occurs
WWTP-P8	Future Capacity Increase	Brookside Ave	From Highland Springs Ave to Orchard Heights Ave	8	Replace	15	2,650	230	610,285	610,300	732,400	952,200	With Annexation	As Development Occurs
WWTP-P9	Future Capacity Increase	Brookside Ave	From Orchard Heights Ave to Cherry Ave	8	Replace	15	2,700	230	621,800	621,800	746,200	970,100	Within City Limit With Annexation	Approximately 320 EDUs
WWTP-P10	Future Capacity Increase	Cherry Ave	From Brookside Ave to Cougar Way	8	Replace	15	2,650	230	610,285	610,300	732,400	952,200	Within City Limit With Annexation	Approximately 300 EDUs
WWTP-P11	Future Capacity Increase	Cherry Ave	From Cougar Way to Oak Valley Pkwy	8	Replace	15	2,675	230	616,042	616,100	739,400	961,300	Within City Limit With Annexation	Approximately 210 EDUs
WWTP-P12	Future Capacity Increase	Cherry Ave	From oak Valley Pkwy to Antonell Ct	10	Replace	15	1,700	230	391,504	391,600	470,000	611,000	Within City Limit With Annexation	Approximately 1,170 EDUs
WWTP-P13	Future Capacity Increase	Cherry Ave	From Antonell Ct to E 8th St	12	Replace	15	3,675	230	846,338	846,400	1,015,700	1,320,500	Within City Limit With Annexation	Approximately 2,430 EDUs
WWTP-P14	Future Capacity Increase	Illinois Ave	From E 8th St to E 6th St	12	Replace	15	1,175	230	270,598	270,600	324,800	422,300	Within City Limit With Annexation	Approximately 2,300 EDUs
WWTP-P15	Future Capacity Increase	E 6th St	From Illinois Ave to Pennsylvania Ave	15	Replace	18	700	247	172,828	172,900	207,500	269,800	Within City Limit With Annexation	Approximately 4,070 EDUs
WWTP-P16	Future Capacity Increase	Pennsylvania Ave	From E 6th St to 175' s/o Interstate 10	18	Replace	24	975	396	385,811	385,900	463,100	602,100	Within City Limit With Annexation	Approximately 1,940 EDUs
WWTP-P17	Future Capacity Increase	ROW	From Pennsylvania Ave to 75' w/o Beaumont Ave	18	Replace	30	3,800	526	2,000,246	2,000,300	2,400,400	3,120,600	Within City Limit With Annexation	Approximately 380 EDUs
WWTP-P18	Future Capacity Increase	ROW	From 125' n/o 3rd St to 400' e/o Beaumont Ave	10	Replace	10	125	200	24,968	25,000	30,000	39,000	Within City Limit	Approximately 2,680 EDUs
WWTP-P19	Future Capacity Increase	ROW	From 3rd St to 400' e/o Beaumont Ave	10	Replace	10	175	200	34,955	35,000	42,000	54,600	Within City Limit	Approximately 1,760 EDUs
WWTP-P20	Future Capacity Increase	ROW	From Rover Ln to 350' w/o Houstonia Ln	12	Replace	15	2,550	230	587,255	587,300	704,800	916,300	Within City Limit	Approximately 2,070 EDUs
WWTP-P21	Future Capacity Increase	E 1st St	From Palm Ave to Beaumont Ave	24	Replace	30	1,600	526	842,209	842,300	1,010,800	1,314,100	Within City Limit	Approximately 6,350 EDUs
WWTP-P22	Future Capacity Increase	E 1st st	From California Ave to Minnesota Ave	30	Replace	36	2,125	670	1,422,776	1,422,800	1,707,400	2,219,700	Within City Limit With Annexation	Approximately 15,780 EDUs
WWTP-P23	Future Capacity Increase	Minnesota Ave	From E 1st St to 575' n/o E 1st St	30	Replace	36	575	670	384,986	385,000	462,000	600,600	Within City Limit With Annexation	Approximately 23,390 EDUs
WWTP-P24	Future Capacity Increase	ROW	From 575' n/o E 1st St to 1,025' w/o Minnesota Ave	30	Replace	36	1,100	670	736,496	736,500	883,800	1,149,000	Within City Limit With Annexation	Approximately 2,500 EDUs
WWTP-P25	New Capacity	Beaumont Ave	From E 1st St to 1,275' n/o Laird Rd	-	New	21	2,475	331	818,683	818,700	982,500	1,277,300	With Annexation	As Development Occurs
				Subtota	ıl - Wastewate	r Treatment I	Plant Tribu	tary Area Im	provements	14,021,100	16,826,200	21,875,400		

PRELIMINARY

Wastewater Master Plan

City of Beaumont

														PRELIMINA
nprov. No.	Type of Improvement	Alignment	Limits	Existing	Improvemen	nts Details			ture Costs	Baseline Constr. Cost	Estimated Const. Cost ¹	Capital Impro. Cost ^{2,3}	Future Flow Service Location	Construction Trigger ⁴
	improvement			Diameter	Replace	Diameter	Length		Infr. Cost				Service Location	
				(in)		(in)	(ft)	(\$)	(\$)	(\$)	(\$)	(\$)		
our Seaso	ns Lift Station Tri	butary Area												
Gravity Mai	n Improvements													
FS-P1	Future Capacity Increase	Highland Springs Ave	From E 6th St to 450' w/o Highland Springs Ave	10	Replace	12	1,225	208	254,565	254,600	305,600	397,300	Within City Limit	Approximately 640 EDU
FS-P2	Future Capacity Increase	Highland Springs Ave	From 550' n/o E 1st St to 100' s/o E 1st St	10	Replace	12	650	208	135,075	135,100	162,200	210,900	Within City Limit	Approximately 690 EDU
FS-P3	Future Capacity Increase	Highland Springs Ave	From 800' n/o Potrero Blvd to 50' s/o Potrero Blvd	12	Replace	15	850	230	195,752	195,800	235,000	305,500	Within City Limit	Approximately 1,340 EDU
FS-P4	Pipe Slope Reconstruction	Highland Springs Ave	From 100' n/o Crooked Creek to Crooked Creek	12	Replace	12	100	208	20,781	20,800	25,000	32,500	Within City Limit	Approximately 1,470 EDU
FS-P5	Future Capacity Increase	Highland Springs Ave	From 350' s/o Crooked Creek to 375' s/o Breckenridge Ave	15	Replace	18	1,525	247	376,518	376,600	452,000	587,600	Within City Limit	Approximately 1,840 EDL
FS-P6	Future Capacity Increase	Breckenridge Ave	From 75' w/o Highland Springs Ave to Highland Springs Ave	10	Replace	10	75	200	14,981	15,000	18,000	23,400	Within City Limit	Approximately 1,830 EDU
ift Station I	mprovements							1		1			1	
FS-LS	Lift Station Replacement	Four Seasons Lift Statio	n	-	Replace	3 @ 1,3	50 gpm	-	2,526,260	2,526,300	3,031,600	3,941,100	Within City Limit	Approximately 3,810 EDU
				Su	btotal - Four S	Seasons Lift S	ation Tribu	itary Area Im	provements	3,524,200	4,229,400	5,498,300		
Other Was	tewater System I	mprovements ⁶						T		T				
	Lift Station Cond	lition Assessment						-	-	-	-	3,600,000	Within City Limit	FY 2022/23 - FY 2030/3
	CCTV Program							-	-	-	-	300,000	Within City Limit	FY 2023/24 FY 2029/30
	On-going Pipelin	e Replacement Program						-	-	-	-	4,800,000	Within City Limit	FY 2023/24 - FY 2030/32
	Wastewater Trea	atment Plant Improveme	ents					-	-	-	-	2,000,000	Within City Limit	FY 2021/22 - FY 2024/25 FY 2028/29 - FY 2030/31
					Su	btotal - Other	Wastewat	er System Im	provements	-	-	10,700,000		
Fotal Costs										1				
							Gra	vity Main Im	provements	20,759,000	24,912,800	32,388,800		
							F	orce Main Im	provements	10,742,400	12,891,200	21,208,700		
								ift Station Im	-		22,679,700	34,634,000		
						Other	Wastewat	er System Im	provements	-	-	10,700,000		
	E 1							Total Improv	vement Cost	50,400,800	60,483,700	98,931,500		
NGINEERING	GROUP, INC.									1				6/16/

Notes:

1. Estimated Construction costs include 20 percent of baseline construction costs to account for unforeseen events and unknown field conditions.

2. Unless noted otherwise, Capital Improvement Costs also include an additional 30 percent of the estimated construction costs to account for administration, construction management, and legal costs.

3. Cost allocation for development related improvements to be reviewed as construction triggers are reached.

4. EDU triggers based on remaining pipeline and lift station capacity and assumes 235 gpd/EDUs, consistent with EMWD Wastewater Master Plan Criteria.

5. Beaumont Mesa force main and wet well expansion reflects City staff budgetary planning estimate provided by City staff June 1, 2021.

6. Other wastewater system improvements reflects City staff budgetary planning estimate provided by City staff June 1, 2021.

improvement is listed as *Existing Capacity Deficiency* on **Table 8.3**. The recommended size for these improvements are based on buildout flow requirements.

- **Replacement Pipeline, Capacity Deficiency Triggered by Future Development.** An existing pipeline is recommended for replacement where additional flow due to future development will create a capacity deficiency. This type of improvement is listed as *Future Capacity Increase* on Table 8.3.
- New Pipeline, Triggered by Future Development. A new pipeline is proposed to serve future growth. This type of improvement is listed as *New Capacity* on Table 8.3.

The opinion of probable construction costs, for the projects included in this master plan, are based on the pipe unit costs summarized on Table 8.1.

It is assumed that in general any replacement pipes will be in the same alignment and the same slope as the existing pipe. However, this study recommends an investigation of the alignment during the pre-design stage of each project.

8.4.3 Improvement Service Location

The Capital Improvement Program on **Table 8.3** classifies the improvements based on the future flow service location. These classifications are summarized as follows:

- Within City Limits: This improvement will convey existing and future flows from development within the existing City limits.
- With Annexation: This improvement will convey future flows from development outside of the existing City limits but within the General Plan Boundary, which would require future annexation.

It should be noted that some improvements convey flows from both service location classifications, as shown on Table 8.2.

8.4.4 Construction Triggers

The CIP improvements are prioritized based on their urgency to mitigate existing deficiencies and to serve future growth. The construction triggers for each improvement are classified as:

- **Fiscal Year:** For improvements included in the 10-Year Capital Improvement Program (Table 8.4) the fiscal year for planned implementation is shown on Table 8.3.
- Equivalent Dwelling Unit: A equivalent dwelling unit (EDU) construction trigger is provided for improvements designated as capacity increases for future development. This trigger is based on remaining capacity in the existing facility planned for future improvement. The remaining capacity is converted to EDUs assuming 235 gpd/EDU.

Table 8.4 10-Year Improvement Phasing

Wastewater Master Plan

City of Beaumont

									Fiscal Year Impr	ovement Phasing					Tota
CIP ID	Funding Type	Type of Improvement	Project Name	Project Description	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	Improve
					(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Gravity Ma	lain Improveme	ents ²													
UOV-P2		Existing Capacity Deficiency	Apron Lane Pipeline Replacement	Replace existing 8-inch gravity main with new 12-inch gravity main in Apron Ln			97,400								97,4
WWTP-P2		Existing Capacity Deficiency	Edgar Ave Pipeline Replacement	Replace existing 12-inch gravity main with new 15-inch gravity main in Edgar Ave		206,700									206,
				Subtotal - Gravity Main Improvements	0	206,700	97,400	0	0	0	0	0	0	0	304,
Beaumont	t Mesa Improv	ements													
		New Force Main	Force Main Design and Pump Design	Design of new force main and pump additions	450,000										450,
			Pump Replacement/Addition Construction	Construction of replacement pumps and additional pumps for LS		750,000									750,
			Force Main Construction	Construction of new 16-inch force main		4,000,000									4,000
		New Wet Well	Wet Well Design	Design of New Wet Well	400,000										400
			Wet Well Construction	Construction of New Wet Well				4,000,000							4,00
				Subtotal - Beaumont Mesa Improvements	850,000	4,750,000	0	4,000,000	0	0	0	0	0	0	9,60
Lift Station	n Condition As	sessment Improver	nents									I			1
		Lift Station Condition		Ongoing lift station improvements to include new electrical, new pumps, repairs to wetwells, repairs to components at the LS, etc		400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	3,60
			Sub	ototal - Lift Station Condition Assessment Improvements	0	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	3,60
Operation	n and Maintena	ance Improvements			I		1			I	I	I	I		1
			CCTV Program	CCTV Wastewater System every 3-years (approx. 59 miles/year) - camera & truck			150,000						150,000		300
			On-going Pipeline Replacement Program	As-needed pipeline replacement for ongoing system improvements			500,000	500,000	500,000	600,000	600,000	600,000	750,000	750,000	4,80
				Subtotal - Operation and Maintenance Improvements	0	0	650,000	500,000	500,000	600,000	600,000	600,000	900,000	750,000	5,10
Wastewat	ter Treatment I	Plant								'		'	'		
		Study	Wastewater Rate Study	Rate Study for FY24 - FY28	200,000										200
		Construction	I&I Project - Flow Meters	Installation of Flow Meters at LS	200,000										200
		Construction	I&I System Repairs - Phase 3	Various needed repairs system wide		200,000									200
		Design/ Construction	Office Expansion	WWTP office and staff workspace building			500,000								500
		Construction	UV Bulb Replacement	WWTP UV bulb replacement			50,000	50,000	50,000			50,000	50,000	50,000	300
		Construction	RO Module Replacement	WWTP RO module replacement					300,000					300,000	600
				Subtotal - Wastewater Treatment Plant	400,000	200,000	550,000	50,000	350,000	0	0	50,000	50,000	350,000	2,00
Total Impr	rovement Cost	s								I	l 	I	I		
				Fiscal Year Total	1,250,000	5,556,700	1,697,400	4,950,000	1,250,000	1,000,000	1,000,000	1,050,000	1,350,000	1,500,000	
				Cumulative Total	1,250,000	6,806,700	8,504,100	13,454,100	14,704,100	15,704,100	16,704,100	17,754,100	19,104,100	20,604,100	20,60

Notes:

1. Unless noted otherwise, budgetary planning estimate provided by City staff on June 01, 2021.

2. Existing Wastewater System capacity deficiency Capital Improvement Program.

PRELIMINARY

^{6/2/2021}

 As Development Occurs: New infrastructure required to serve future growth is to be constructed on an as-needed basis as development occurs.

8.5 10-YEAR IMPROVEMENT PHASING

This section discusses the 10 Year Capital Improvement Program (10 Year CIP) and recommended improvement phasing. This 10-Year CIP includes capacity improvements for the existing wastewater collection system, as identified as part of the existing system capacity evaluation, as well as other improvements and planning efforts for the ongoing operations and maintenance of the collection system. The improvements included in the 10 Year CIP are summarized as follows:

- **Gravity Main Improvements:** These improvements reflect the required pipeline upgrades to mitigate existing system deficiencies.
- **Beaumont Mesa Improvements:** These improvements consist of the design and construction of a wet well expansion and new force main for the Beaumont Mesa Lift Station. This also includes new and replacement lift station pumps.
- Lift Station Condition Assessment Improvements: This reflects ongoing lift station improvements including new electrical equipment, replacement pumps, wet well repairs, component repairs, and other as-needed improvements identified by City staff.
- **Operation and Maintenance Improvements:** This reflects the acquisition of a new CCTV camera and truck as well as an allowance for as-needed pipeline replacement
- Wastewater Treatment Plant: This reflects currently planned improvements related to the wastewater treatment plant, including flow meters and system-wide improvements to identify and mitigate I/I issues and on-site improvements. This also includes a wastewater race study for FY2024-28.

The 10-Year CIP is intended to provide general guidance for implementing the capital improvement projects listed in this master plan. Additional improvements may be constructed as developments occurs and the phasing and implementation of a sequence of construction is subject to the approval of the City Engineer.



APPENDICES

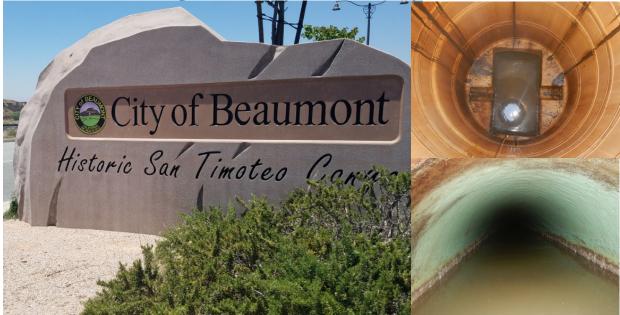


APPENDIX A

Sewer Flow Monitoring and Inflow/Infiltration Study, 2020 (V&A)

City of Beaumont

Sewer Flow Monitoring and Inflow/Infiltration Study



Prepared for:

Akel Engineering Group 7433 N. First Street, Suite 103 Fresno, CA. 93720

Report Date:

August 2020

Prepared by:



V&A Project No. 19-0280

In the promotion of environmental consciousness, this document is designed to be printed double-sided, if at all. V&A strives to do all it can to be a green company. Think twice before printing. Reduce. Reuse. Recycle.

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Abbreviations and Acronyms

Abbreviations/Acronyms	Definition
ADWF	Average Dry Weather Flow
AVG	Average
CCTV	Closed-Circuit Television
CDEC	California Data Exchange Center
CIP	Capital Improvement Plan
CO	Carbon Monoxide
CWOP	Citizen Weather Observing Program
DIA	Diameter
d/D	Depth/Diameter Ratio
FT	Feet
FM	Flow Monitor
GPD	Gallons per Day
GPM	Gallons per Minute
GWI	Groundwater Infiltration
H2S	Hydrogen Sulfide
IN	Inch
١/١	Inflow and Infiltration
IDM	Inch-Diameter Mile
IDW	Inverse Distance Weighting
LEL	Lower Explosive Limit
MAX	Maximum
MGD	Million Gallons per Day
MIN	
NOAA	National Oceanic and Atmospheric Administration
N/A	Not applicable
PF	-
PWS	Private Weather Station
Q	
RDI	Rainfall-Dependent Infiltration
RG	Rain Gauge
	V&A Consulting Engineers, Inc.
	Water Environment Federation
WRCC	Western Regional Climate Center

Terms and Definitions

Term D	efinition
Average dry weather flow (ADWF)	The average flow rate or pattern from days without noticeable inflow or infiltration response. ADWF usage patterns for weekdays and weekends differ and must be computed separately. ADWF is expressed as a numeric average and may include the influence of normal groundwater infiltration (not related to a rain event).
Basin	Sanitary sewer collection system upstream of a given location (often a flow meter), including all pipelines, inlets, and appurtenances. Also refers to the ground surface area near and enclosed by pipelines. A basin may refer to the entire collection system upstream from a flow meter or exclude separately monitored basins upstream.
Depth/diameter (d/D) ratio	Depth of water in a pipe as a fraction of the pipe's diameter. A measure of the fullness of the pipe used in the capacity analysis.
Infiltration and inflow	Infiltration and inflow (I/I) rates are calculated by subtracting the ADWF flow curve from the instantaneous flow measurements taken during and after a storm event. Flow in excess of the baseline consists of inflow, rainfall-responsive infiltration, and rainfall-dependent infiltration. Total I/I is the total sum in gallons of additional flow attributable to a storm event.
Infiltration, groundwater	Groundwater infiltration (GWI) is groundwater that enters the collection system through pipe defects. GWI depends on the depth of the groundwater table above the pipelines as well as the percentage of the system that is submerged. The variation of groundwater levels and subsequent groundwater infiltration rates are seasonal by nature. On a day-to-day basis, groundwater infiltration rates are relatively steady and will not fluctuate greatly.
Infiltration, rainfall- dependent	Rainfall-dependent infiltration (RDI) is similar to groundwater infiltration but occurs as a result of storm water. The storm water percolates into the soil, submerges more of the pipe system, and enters through pipe defects. RDI is the slowest component of storm-related infiltration and inflow, beginning gradually and often lasting 24 hours or longer. The response time depends on the soil permeability and saturation levels.
Inflow	Inflow is defined as water discharged into the sewer system, including private sewer laterals, from direct connections such as downspouts, yard, and area drains, holes in manhole covers, cross-connections from storm drains, or catch basins. Inflow creates a peak flow problem in the sewer system and often dictates the required capacity of downstream pipes and transport facilities to carry these peak instantaneous flows. Overflows are often attributable to high inflow rates.
Peak Wet Weather Flow	The highest daily flow during and immediately after a significant storm event. Includes sanitary flow, infiltration, and inflow.
Peaking factor (PF)	PF is the ratio of peak measured flow to average dry weather flow. This ratio expresses the degree of fluctuation in flow rate over the monitoring period and is used in the capacity analysis.
Surcharge	When the flow level is higher than the crown of the pipe, then the pipeline is said to be in a surcharged condition. The pipeline is surcharged when the d/D ratio is greater than 1.0.

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Executive Summary

Scope and Purpose

V&A Consulting Engineers (V&A) was retained by Akel Engineering Group (AEG) to perform sanitary sewer flow monitoring for the City of Beaumont, CA (City) in support of the City's Sewer System Master Plan. Flow monitoring was performed for approximately seven weeks from February 20 to April 8, 2020 at 14 sites, which included four open-channel gravity sewer mains and 10 pump stations. There were three general purposes for this study.

- 1. Establish the baseline sanitary sewer flows at the flow monitoring sites.
- 2. Measure the peak flow characteristics of the subject pipes during the monitoring period.
- 3. Isolate infiltration and inflow (I/I) and run analyses pertaining to I/I response levels.

Monitoring Sites and Basins

The flow monitoring site locations were selected and approved by the City and AEG and are listed in Table ES-1, and shown in Figure ES-1. The isolated basins are illustrated in Figure ES-2.

Monitoring Site	Structure ID	Monitored Pipe	Pipe Dia. (in)	Location		
FM-01	SSMH01061	North Inlet	24	Cherry Avenue north of Mary Lane		
FM-02	SSMH01725	West Inlet	30	Veile Avenue north of West 4th Street		
FM-03	SSMH00381	West Inlet	24	California Avenue north of East 1st Street		
FM-04	SSMH00450	North Inlet	57	East 6th Street east of Illinois Avenue		
FM-05	Four Seasons L	.S		Highland Springs, 320 feet south of Breckenridge Ave		
FM-06	Seneca Springs	s LS		Potrero Blvd and Seneca Springs Blvd		
FM-07	Marshall Creek	LS		Northwest end of Ring Ranch Road		
FM-08	Noble Creek LS	;		Northbound I-10 off-ramp to Oak Valley Parkway, 265 feet south of Oak Valley Pkwy		
FM-09	Industrial Park	LS		Off road, 540 feet south of end of Risco Circle		
FM-10	Upper Oak Valle	ey LS		Oak Valley Parkway, 0.48 miles west of Apron Lane		
FM-11	Lower Oak Valle	ey LS		Palmer Avenue, 300 feet west of Morris Street		
FM-12	Beaumont Mes	a LS		Potrero Blvd, just south of Costello Way		
FM-13	Olivewood LS			Northwest end of Olivewood Gated Community, off of Costello Way		
FM-14	Fairway Canyon LS			Northwest end of Crenshaw Street		

Table ES-1. List of Flow Monitoring Sites



1

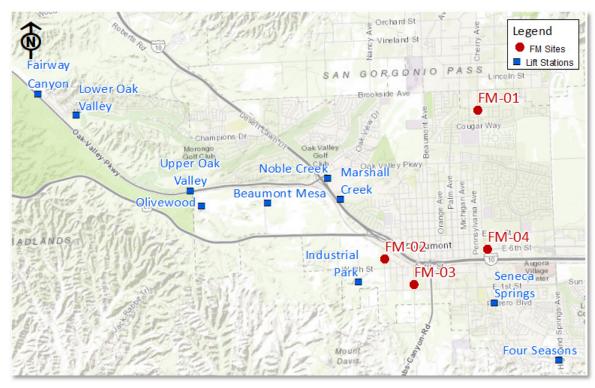


Figure ES-1. Map of Flow Monitoring Sites - Overall

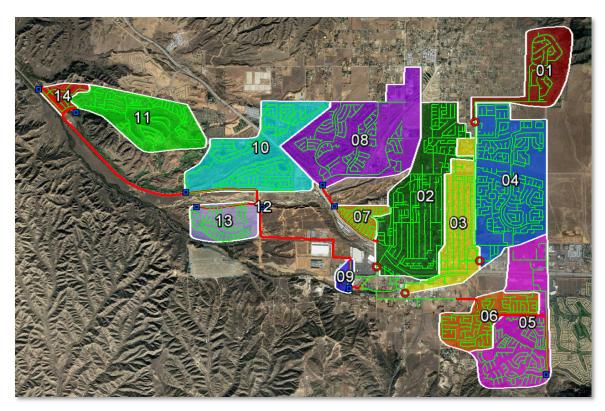
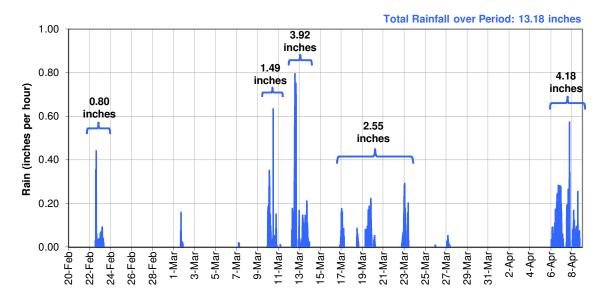


Figure ES-2. Map of Flow Monitoring Basins

2

Rainfall Monitoring

There was approximately 13.18 inches of rainfall during the flow monitoring study (average of Beaumont rainfall gauges) as shown in Figure ES-3. The cumulative precipitation was approximately 2.5 times higher than historical averages over the flow monitoring period.





There were four classifiable rainfall events during the flow monitoring period:

- March 9/10, 2020: Classified as approximately a 1-year, 12-hour event at two of six rain gauges.
- March 12/13, 2020: The strongest rainfall event of the flow monitoring period, classified as between a 15-year and 35-year, 3-hour event across the region. This event elicited the strongest I/I response system-wide, and also had the highest intensity rain over the flow monitoring period. This rain event will be used for the I/I analyses.
- March 22/23, 2020: Classified as a 2-year, 3-hour event at one rain gauge.
- April 6/7/8, 2020: Classified as between a 2-year and 3-year, 12-hour event at five of six rain gauges.
- Long-Term: The 30 days between March 10 and April 9, 2020, were classified as between a 4.5year and 15-year, 30-day rain event.

The highest classification over the period and for all rain gauges was a three-hour period (from approximately 1:15 pm to 4:15pm) on March 12, 2020. Figure ES-4 illustrates this classification regionally.



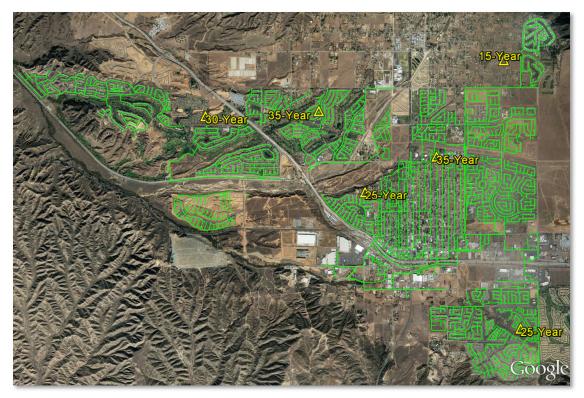


Figure ES-4. March 12 Storm Event, Peak Classification (per rain gauge, duration = 3-hours)

Average Flow Analysis

Two sets of average dry weather flow (ADWF) curves were established due to the "shelter-in-place" (SIP) order for Covid-19. Table ES-2 summarizes the ADWF values per site during the flow monitoring period.

		Pre-S	IP ADWI	= (mgd)			Post-S	SIP ADWF	(mgd)		SIP
Site	Mon- Thu	Fri	Sat	Sun	Overall	Mon- Thu	Fri	Sat	Sun	Overall	Delta
FM-01	0.066	0.066	0.073	0.074	0.068	0.072	0.073	0.084	0.081	0.075	10%
FM-02	0.811	0.770	0.823	0.743	0.797	0.820	0.811	0.802	0.753	0.806	1%
FM-03	1.005	0.904	0.978	1.073	0.996	1.127	1.153	1.191	1.139	1.142	15%
FM-04	0.497	0.480	0.511	0.591	0.510	0.612	0.617	0.623	0.674	0.623	22%
FM-05	0.253	0.256	0.243	0.244	0.251	0.217	0.230	0.226	0.222	0.221	-12%
FM-06	0.140	0.145	0.156	0.170	0.147	0.142	0.144	0.145	0.158	0.145	-2%
FM-07	0.414	0.418	0.425	0.438	0.419	0.426	0.423	0.435	0.433	0.428	2%
FM-08	0.241	0.241	0.237	0.247	0.241	0.237	0.239	0.245	0.246	0.240	0%
FM-09	0.056	0.052	0.032	0.028	0.048	0.063	0.072	0.026	0.015	0.052	8%
FM-10	0.707	0.686	0.712	0.756	0.712	0.827	0.856	0.842	0.871	0.840	18%
FM-11	0.381	0.361	0.393	0.439	0.388	0.441	0.444	0.459	0.441	0.444	14%
FM-12	0.745	0.734	0.735	0.778	0.747	0.853	0.907	0.906	0.893	0.874	17%
FM-13	0.022	0.022	0.022	0.024	0.022	0.025	0.026	0.026	0.028	0.026	15%
FM-14	0.060	0.062	0.062	0.067	0.062	0.064	0.064	0.065	0.064	0.064	4%

Table ES-2. Dry Weather Flow



4

Peak Measured Flows and Pipeline Capacity Analysis

Peak measured flows and the hydraulic grade line data (flow depths) are important to understanding the capacity limitations of a collection system. The capacity analysis terms used in the text below are defined as follows:

- Peaking Factor: Peaking factor is defined as the peak measured flow divided by the average dry weather flow (ADWF). Peaking factors are influenced by many factors, including size and topography of the tributary area, flow attenuation, flow restrictions, and characteristics of I/I entering the collection system. Municipal standards for peaking factor vary agency by agency; the City should refer to jurisdictional standards when evaluating peaking factors¹. For this study, peaking factors over 5.0 are highlighted RED.
- d/D Ratio: The d/D ratio is the peak measured depth of flow (d) divided by the pipe diameter (D). The d/D ratio for each site was computed based on the maximum depth of flow for the study. Standards for d/D ratio vary from agency to agency, but typically range between $d/D \le$ 0.5 and $d/D \le 0.75$. The City should refer to jurisdictional standards when evaluating d/Dratios. For this study, d/D ratios over 0.75 are highlighted ORANGE. Surcharged sites are highlighted RED.

Table ES-3 summarizes the peak recorded flows, levels, d/D ratios, and peaking factors per site during the flow monitoring period. Capacity analysis data is presented on a site-by-site basis and represents the hydraulic conditions only at the site locations; hydraulic conditions in other areas of the collection system will differ.

Monitored Site	ADWF pre-SIP ^A (mgd)	Peak Measured Flow (mgd)	Peaking Factor	Pipe Diameter, D (in)	Max Depth <i>, d</i> (in)	<i>Max</i> d/D Ratio	Surcharge above pipe crown (ft)
FM-01	0.068	0.39	5.7	8	3.3	0.42	-
FM-02	0.797	1.97	2.5	24	4.1	0.17	-
FM-03	0.996	3.21	3.2	30	18.6	0.62	-
FM-04	0.510	1.57	3.1	21	6.8	0.33	-
FM-05	0.251	0.62	2.5	n/a	n/a	n/a	n/a
FM-06	0.147	0.48	3.2	n/a	n/a	n/a	n/a
FM-07	0.419	1.40	3.3	n/a	n/a	n/a	n/a
FM-08	0.241	0.57	2.4	n/a	n/a	n/a	n/a
FM-09	0.048	0.25	5.1	n/a	n/a	n/a	n/a
FM-10	0.712	1.76	2.5	n/a	n/a	n/a	n/a
FM-11	0.388	0.87	2.2	n/a	n/a	n/a	n/a
FM-12	0.747	1.94	2.6	n/a	n/a	n/a	n/a
FM-13	0.022	0.070	3.1	n/a	n/a	n/a	n/a
FM-14	0.062	0.12	2.0	n/a	n/a	n/a	n/a

Table ES-3. Capacity Analysis Summary

^A Pre-SIP ADWF was used for this analysis.

¹ WEF Manual of Practice FD-6 and ASCE Manual No. 62 suggests typical peaking factor ratios range between 3 and 4, with higher values possibly indicative of pronounced I/I flows.



The following capacity analysis results are noted:

- Peaking Factors: Only two sites had peaking factors over 5.0.
 - Site FM-01: Site FM-01 was an open-channel flow monitoring site and was not influenced by pump station operations. Peak flows occurred during the March 12 rainfall event.
 - Site FM-09: FM-09 is the Industrial Park LS, and peak flows did not occur corresponding to I/I contribution of a large rainfall event. The higher peaking factor for this site is attributed to pump station operations and the type of service (industrial flows).
- d/D Ratio: All open-channel flow monitoring sites had d/D ratios less than 0.75 for the entirety of the flow monitoring period.

Figure ES-5 shows a schematic diagram of the peak measured flows at the flow monitoring sites, with peak flow levels shown for open-channel flow monitoring sites.

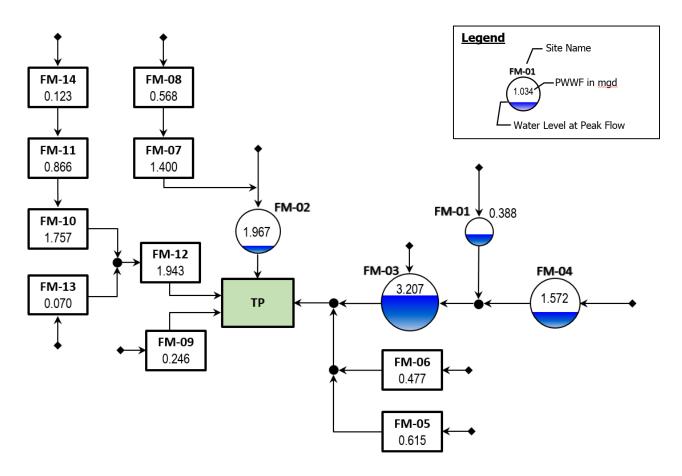


Figure ES-5. Peak Measured Flow (Flow Schematic)



6

Infiltration and Inflow

Flow monitoring basins are localized areas of a sanitary sewer collection system upstream of a given location (often a flow meter), including all pipelines, inlets, and appurtenances. The basin refers to the ground surface area near and enclosed by the pipelines. A basin may refer to the entire collection system upstream from a flow meter or may exclude separately monitored basins upstream. I/I analysis in this report will be conducted on a site-by-site basis. For this study subtraction of flows was required to isolate the drainage areas of some flow monitoring basins.

I/I results were taken from the March 12/13 rainfall event, the highest classified rainfall event of the season which also elicited the strongest I/I response. Table ES-4 summarizes the I/I results for this study; the top 3 and next 3 ranked basins have been shaded RED and ORANGE. Please refer to the I/I Methods section for more information on inflow and infiltration analysis methods and ranking methods.

Temperature maps for inflow and total I/I are shown in Figure ES-6 and Figure ES-7.

Basin	ADWF (mgd)	Inflow Rate (mgd)	Peak I/I per ADWF Ratio	Total I/I (gallons)	Total I/I per-ADWF (MG/adwf/ inch-rain)	Final Inflow Ranking	Final Total I/I Ranking
Basin 01	0.068	0.290	4.28	120,553	0.45	1	1
Basin 02	0.377	0.530	1.40	289,648	0.19	5	5
Basin 03	0.418	1.234	2.95	335,977	0.20	2	3
Basin 04	0.510	0.448	0.88	189,565	0.09	8	9
Basin 05	0.251	0.301	1.20	117,106	0.14	6	7
Basin 06	0.147	0.033	0.22	26,709	0.05	11	12
Basin 07	0.179	0.266	1.49	142,914	0.20	4	2
Basin 08	0.241	0.258	1.07	85,298	0.08	7	10
Basin 09	0.048	0.006	0.13	18,854	0.10	12	8
Basin 10	0.324	0.208	0.64	246,795	0.19	10	4
Basin 11	0.326	0.250	0.77	94,206	0.08	9	11
Basin 13	0.022	0.035	1.56	13,305	0.16	3	6
Basin 14	0.062	0.006	0.09	9,059	0.04	13	13

Table ES-4. Inflow/Infiltration Analysis Summary

The following I/I results are noted:

- Inflow: Basins 1, 3, and 13 had the highest normalized peak I/I rates, an indicator of high inflow within the flow monitoring basin.
- **RDI**: Throughout the region, for the rainfall events monitored, there was minimal RDI². Systemwide, flows returned to near-baseline levels within 24 hours. Given the scale of the rainfall events that occurred during this study, RDI does not appear to be an issue for the City.
- Total I/I: Basins 1, 3, and 7 had the highest normalized combined I/I rates, an indicator of high combined inflow and infiltration within the flow monitoring basin

² Basins 5 and 7 may have shown a hint of a sustained RDI component.

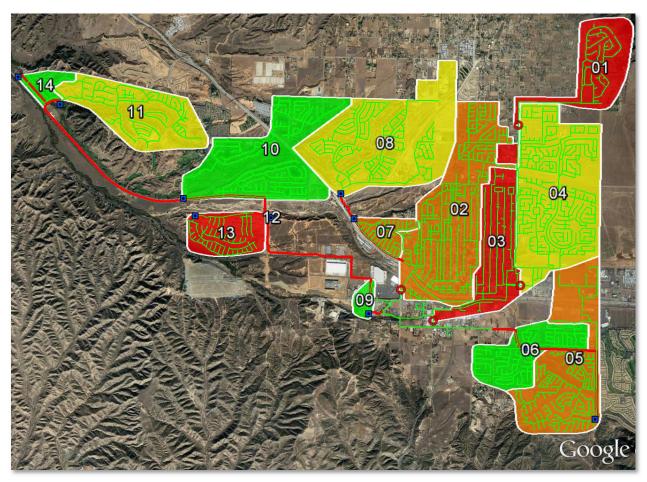


Figure ES-6. Temperature Map: Inflow Final Basin Rankings



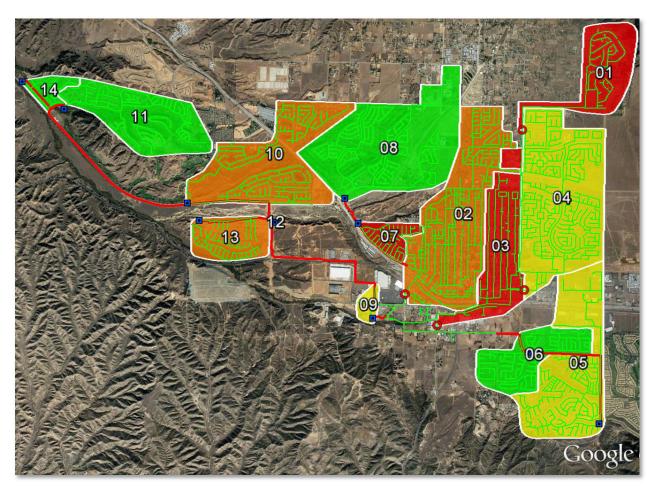


Figure ES-7. Temperature Map: Total I/I Final Basin Rankings

Note: There was uncertainty as to whether using IDM and ACRE normalization methods were the most appropriate means of normalization for this study for some basins. For example, the full Basin 13 (Olivewood LS) areas and IDMs were reported, but the development is still in construction and only approximately 15% to 20% occupied. Using the reported IDM and ACRE values for Basin 13 may underrepresent the I/I within that basin. Conversely, Basin 09 (Industrial LS) has sporadic flows due to the type of service, and few pipelines shown within its service area. Using reported IDM and ACRE values may have over-represented I/I in this basin.

For the purposes of basin I/I rankings, the per-ADWF normalization method was used; however, the inflow and infiltration normalization values for the per-IDM and per-ACRE are also reported. It is noted that construction repairs and I/I reduction and mitigation methods are most typically priced on pipe length basis. The reviewing engineer may wish to review the rankings made in this report and consider the IDM metric when making CIP decisions.

Recommendations

V&A advises that future I/I reduction plans consider the following recommendations:

- 1. Master Plan and Model Implementation: This study focuses on inflow and infiltration generation; however, the capacity deficiencies of the collection system may be of greater concern relative to I/I response during peak wet weather events. The City may wish to have a model designed and/or a master plan study conducted to determine the overall needs of the City relative to I/I. Or simply, the study results can be used to update the master plan and compare with previous model assumptions and flow monitoring results.
- 2. Determine I/I Reduction Program: The City should examine its I/I reduction needs to determine their needs and goals for a future I/I reduction program.
 - a. If peak flows, sanitary sewer overflows, and pipeline capacity issues are of greater concern, then priority can be given to investigate and reduce sources of inflow within the basins with the greatest inflow problems.
 - b. If total infiltration and general pipeline deterioration are of greater concern, then the program can be weighted to investigate and reduce sources of infiltration within the basins with the greatest infiltration problems. Generally, RDI rates and hence total I/I were relatively low for this system.
 - c. Basins 1 and 3 ranked in the top 3 for both inflow and total combined I/I. An I/I reduction program could begin within these basins.
- 3. I/I Reduction Cost Effective Analysis: The City should conduct a study to determine which is more cost-effective: (1) locating the sources of inflow/infiltration and systematically rehabilitating or replacing the faulty pipelines; or (2) continued treatment of the additional rainfall dependent I/I flow.



1 Introduction

Scope and Purpose 1.1

V&A Consulting Engineers (V&A) was retained by Akel Engineering Group (AEG) to perform sanitary sewer flow monitoring for the City of Beaumont, CA (City) in support of the City's Sewer System Master Plan. Flow monitoring was performed for approximately seven weeks from February 20 to April 8, 2020 at 14 sites, which included four open-channel gravity sewer mains and 10 pump stations³. There were three general purposes for this study.

- 1. Establish the baseline sanitary sewer flows at the flow monitoring sites.
- 2. Measure the peak flow characteristics of the subject pipes during the monitoring period.
- 3. Isolate infiltration and inflow (I/I) and run analyses pertaining to I/I response levels.

1.2 Flow Monitoring Sites

Open-channel flow monitoring sites are identified from the manholes where the flow monitors were secured and the pipelines in which the flow sensors were placed. Pump station flow monitoring measured flows into the pump station wet wells. Capacity analysis and flow rate information is presented on a siteby-site basis. The flow monitoring site locations were selected and approved by the City and AEG. Information regarding the flow monitoring locations is listed in Table 1-1. Figure 1-1 illustrates the flow monitoring locations. Detailed descriptions of the individual flow monitoring sites, including photographs, are included in Appendix A.

1.3 Flow Monitoring Basins

Flow monitoring site data may include the flows of one or many drainage basins. Flow monitoring basins are localized areas of a sanitary sewer collection system upstream of a given location (often a flow meter), including all pipelines, inlets, and appurtenances. The basin refers to the ground surface area near and enclosed by the pipelines. A basin may refer to the entire collection system upstream from a flow meter or may exclude separately monitored basins upstream, requiring basin isolation (subtraction of upstream flows). One of the primary issues that arises as a result is that it is necessary to subtract flows in order to isolate basins. For more details on problems that arise from subtraction of flows, see Section 2.4 Measurement Error and Uncertainty.

Information regarding the isolated flow monitoring basins are summarized in Table 1-2 and illustrated in Figure 1-2.



³ Initially 13 sites and 9 pump stations were planned for installation: however, Olivewood LS was not accessible during installation. V&A and AEG instead installed equipment at Fairway Canyon LS ("added as Site 14"). Mid-study, and before the March 12, 2020 rain event, Olivewood was made accessible, and V&A/AEG was able to collect data from Site 13 Olivewood LS.

Monitoring Site	Structure ID	Monitored Pipe	Pipe Dia. (in)	Location		
FM-01	SSMH01061	North Inlet	24	Cherry Avenue north of Mary Lane		
FM-02	SSMH01725	West Inlet	30	Veile Avenue north of West 4th Street		
FM-03	SSMH00381	West Inlet	24	California Avenue north of East 1st Street		
FM-04	SSMH00450	North Inlet	57	East 6th Street east of Illinois Avenue		
FM-05	Four Seasons L	.S		Highland Springs, 320 feet south of Breckenridge Ave		
FM-06	Seneca Springs	s LS		Potrero Blvd and Seneca Springs Blvd		
FM-07	Marshall Creek	LS		Northwest end of Ring Ranch Road		
FM-08	Noble Creek LS	;		Northbound I-10 off-ramp to Oak Valley Parkway, 265 feet south of Oak Valley Pkwy		
FM-09	Industrial Park	LS		Off road, 540 feet south of end of Risco Circle		
FM-10	Upper Oak Valle	ey LS		Oak Valley Parkway, 0.48 miles west of Apron Lane		
FM-11	Lower Oak Valle	ey LS		Palmer Avenue, 300 feet west of Morris Street		
FM-12	Beaumont Mes	a LS		Potrero Blvd, just south of Costello Way		
FM-13	Olivewood LS			Northwest end of Olivewood Gated Community, off of Costello Way		
FM-14	Fairway Canyon	LS		Northwest end of Crenshaw Street		

Table 1-1. List of Monitoring Locations

Table 1-2. Isolated Flow Monitoring Basins

Basin	Size (Acres)	Pipe Length (IDM)	Basin Flow Equation
1	459	54.4	= QFM-01
2	1148	285.2	= QFM-02 - QFM-07
3	581	165.9	= QFM-03 - QFM-01 - QFM-04
4	1230	301.9	= Q _{FM-04}
5	869	152.6	= QFM-05
6	417	88.3	= QFM-06
7	136	35.8	= QFM-07 - QFM-08
8	1212	164.6	= QFM-08
9	63	26.2	= QFM-09
10	927	164.2	= QFM-10 - QFM-11
11	644	104.3	= QFM-11 - QFM-14
12	0.8	1.3	= QFM-12 - QFM-10 - QFM-13
13	312	55.3	= QFM-13
14	108	18.8	= QFM-14

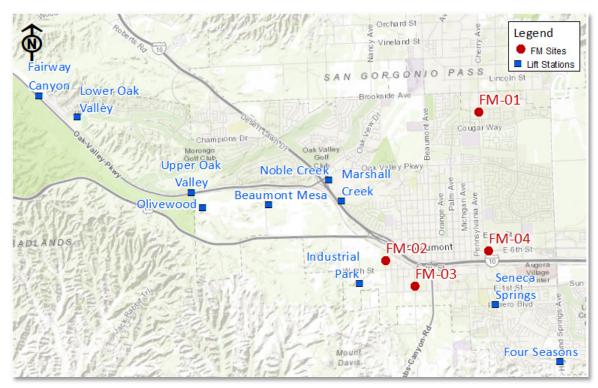


Figure 1-1. Map of Flow Monitoring Sites

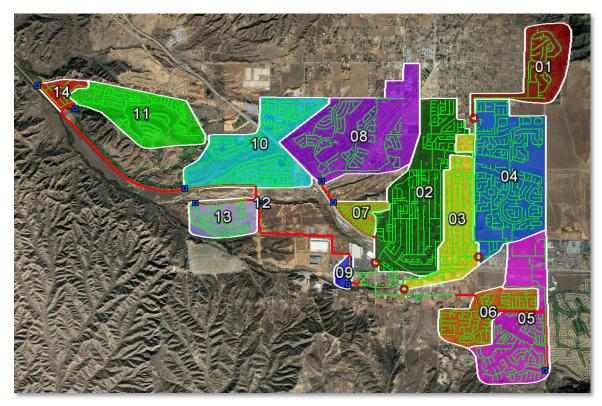


Figure 1-2. Map of Flow Monitoring Basins



2 Methods and Procedures

2.1 **Confined Space Entry**

A confined space (Photo 2-1) is defined as any space that is large enough and so configured that a person can bodily enter and perform assigned work, has limited or restricted means for entry or exit and is not designed for continuous employee occupancy. In general, the atmosphere must be constantly monitored for sufficient levels of oxygen (19.5% to 23.5%), and the presence of hydrogen sulfide (H_2S) gas, carbon monoxide (CO) gas, and lower explosive limit (LEL) levels. A typical confined space entry crew has members with OSHA-defined responsibilities of Entrant, Attendant, and Supervisor. The Entrant is the individual performing the work. He or she is equipped with the necessary personal protective equipment needed to perform the job safely, including a personal four-gas monitor (Photo 2-2). If it is not possible to maintain line-of-sight with the Entrant, then more Entrants are required until line-of-sight can be maintained. The Attendant is responsible for maintaining contact with the Entrants to monitor the atmosphere using another four-gas monitor and maintaining records of all Entrants if there is more than one. The Supervisor is responsible for developing the safe work plan for the job at hand prior to entering.



Photo 2-1. Confined Space Entry



Photo 2-2. Typical Personal Four-Gas Monitor



2.2 Flow Meter Installation

V&A installed twenty-one (21) Isco 2150 and Hach 902 flow meters for temporary monitoring within the collection system. Both types of meters use submerged sensors with a pressure transducer to collect depth readings and an ultrasonic Doppler sensor to determine the average fluid velocity. The ultrasonic sensor emits high-frequency sound waves, which are reflected by air bubbles and suspended particles in the flow. The sensor receives the reflected signal and determines the Doppler frequency shift, which indicates the estimated average flow velocity. The sensor is typically mounted at a manhole inlet to take advantage of smoother upstream flow conditions. The sensor may be offset to one side to lessen the chances of fouling and sedimentation where these problems are expected to occur. Manual level and velocity measurements were taken during the installation of the flow meters and again when they were removed and compared to simultaneous level and velocity readings from the flow meters to ensure proper calibration and accuracy. Figure 2-1 shows a typical installation for a flow meter with a submerged sensor.

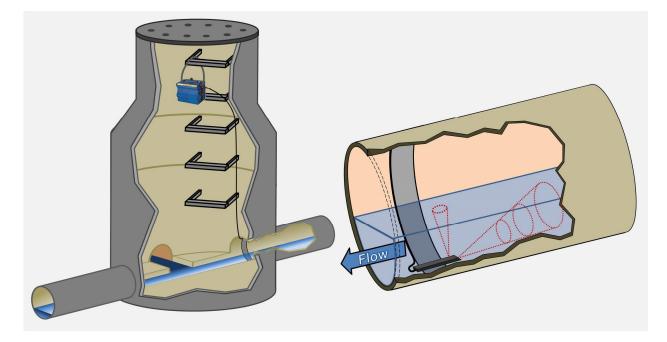


Figure 2-1. Typical Installation for Isco 2150 Flow Meter with Submerged Sensor



Flow Calculation 2.3

Data retrieved from the flow meters were placed into a spreadsheet program for analysis. Data analysis includes data comparison to field calibration measurements, as well as necessary geometric adjustments as required for sediment (sediment reduces the pipe's wetted cross-sectional area available to carry flow). Area-velocity flow metering uses the continuity equation,

$$Q = v \cdot A = v \cdot (A_T - A_S)$$

where Q: volume flow rate

v: average velocity as determined by the ultrasonic sensor

A: cross-sectional area available to carry the flow

Ar: total cross-sectional area with both wastewater and sediment

As: cross-sectional area of sediment.

For circular pipe,

$$A_{T} = \left[\frac{D^{2}}{4}\cos^{-1}\left(1 - \frac{2d_{W}}{D}\right)\right] - \left[\left(\frac{D}{2} - d_{W}\right)\left(\frac{D}{2}\right)\sin\left(\cos^{-1}\left(1 - \frac{2d_{W}}{D}\right)\right)\right]$$

$$A_{s} = \left[\frac{D^{2}}{4}\cos^{-1}\left(1 - \frac{2d_{s}}{D}\right)\right] - \left[\left(\frac{D}{2} - d_{s}\right)\left(\frac{D}{2}\right)\sin\left(\cos^{-1}\left(1 - \frac{2d_{s}}{D}\right)\right)\right]$$

where dw: distance between wastewater level and pipe invert

ds: depth of sediment

D: pipe diameter



2.4 Measurement Error and Uncertainty

For traditional engineering applications, measurement "error" is explained as a difference between a computed, estimated, or measured value and the generally accepted true or theoretically correct value. It can also be thought of as a difference between the desired and the actual performance of equipment. For equipment, error is usually expressed as a percentage relative to accuracy (i.e., "...the velocity sensor has an accuracy of $\pm 2\%$ of the reading...").

However, for this study and flow monitoring applications, the cause of the measurement difference is important and a distinction will be made between the equipment not performing to industry standards ("error") and expected inaccuracies ("uncertainty") associated with monitoring technology limitations.

Gauging "error" occurs when the equipment is not performing to industry standards. This can occur as a result of the following common categories of conditions that can be encountered at a wastewater monitoring site.

- Malfunctioning equipment (i.e. a sensor is damaged, battery life ends, or a desiccant canister becomes saturated)
- Improper equipment choice or maintenance (i.e. the selected gauging equipment technologies are incompatible with hydraulic conditions within the sewer, or excessive gravel deposits are allowed to accumulate around the sensors without being removed)
- Improper equipment calibration (i.e. depth and/or velocity measurements are incorrectly taken within the sewer, or equipment is allowed to drift out of calibration)
- Field conditions within the sewer, (i.e. foaming at the water surface that "blinds" an ultrasonic depth sensor, or toilet paper catching and accumulating on a combination sensor, blinding the acoustic Doppler velocity meter)

For flow monitoring applications, gauging "uncertainty" is used to describe and quantify the expected inaccuracies that result from the limitations of the technologies that utilize indirect measurements to quantify wastewater flow.

It is important to try and install flow meters in "ideal" flow conditions. Ideal flow conditions are generally defined by as laminar flow in a straight-through, constant-slope pipeline with no disturbances (elbows, tees, hydraulic shifts, etc.) 10 diameters upstream and 5 diameters downstream from the flow monitoring location. If ideal flow conditions are met, then an expected uncertainty of final flow calculation from an open-channel flow meter may be approximately ±5%. For many situations, ideal flow conditions cannot be met and uncertainties increase.

2.4.1 Flow Addition versus Flow Subtraction

Due to the uncertainties involved in subtracting flows of similar magnitudes, the addition of flows at multiple monitoring sites is usually preferred over subtraction of flows. Subtraction becomes an issue especially when the flow difference from the subtraction falls within the measurement uncertainty range of the two larger flow data sets (i.e. subtracting a large flow from another large flow to obtain a small difference).

This concept is best demonstrated per the following example:

1. Meter A measures 2.00 MGD of flow and has an expected uncertainty of ±5%, thus the uncertainty range of the flow measurement is ± 0.10 MGD.



- 2. Meter B measures 2.50 MGD of flow and has an expected uncertainty of ±6%, thus the uncertainty range of the flow measurement is ±0.15 MGD.
- 3. Meter C measures 0.50 MGD of flow and has an expected uncertainty of ±8%, thus the uncertainty range of the flow measurement is ±0.04 MGD.
 - Scenario 1 – Flow Addition
 - Meter A + Meter B = $2.00 \text{ MGD} (\pm 0.10) + 2.50 \text{ MGD} (\pm 0.15) = 4.50 \text{ MGD} (\pm 0.25)$
 - Overall uncertainty = $\pm 0.25 / 4.50 = \pm 5.6\%$
 - For flow addition, the final uncertainty is essentially a weighted average of the component. uncertainties.
 - Scenario 2 Flow Subtraction, Large Flow less Small Flow
 - Meter B Meter C = $2.50 \text{ MGD} (\pm 0.15) 0.50 \text{ MGD} (\pm 0.04) = 2.00 \text{ MGD} (\pm 0.19)$
 - Overall uncertainty = $\pm 0.19 / 2.00 = \pm 9.5\%$
 - For flow subtraction, the final uncertainty will always be greater than the component uncertainties.
 - When subtracting a small flow from a large flow, the resulting uncertainties can still be manageable.
 - Scenario 3 Flow Subtraction, Large Flow less a similarly Large Flow
 - Meter B - Meter A = 2.50 MGD (±0.15) - 2.00 MGD (±0.10) = 0.50 MGD (±0.25)
 - Overall uncertainty = $\pm 0.25 / 0.50 = \pm 50\%$
 - When subtracting a similarly sized flow rates, the resulting uncertainties may not be manageable. In this example, an uncertainty of $\pm 50\%$ may be considered unacceptable for confident analyses.

Scenario 3 is a very "real-world" situation. The uncertainties for Meter A and Meter B are extremely reasonable (indeed, most flow monitoring service providers would be extremely pleased with true meter uncertainties of $\pm 5\%$ to $\pm 6\%$). However, the reality of the math is clear and the above example demonstrates the concept of flow subtraction and compounding or inflating uncertainty ranges.

The following points are emphasized in relation to the items of this section:

- For subtraction of flows, the overall uncertainty can be an inflated value that far exceeds the component uncertainties.
- The smaller the resultant flow from the subtraction equation, the larger the percentage uncertainty.
- Whenever possible, basins flows should be directly measured, rather than calculated as a subtraction of two or more flow meters.
- If flow subtraction cannot be avoided, it is better to have the magnitudes of the component flows be as dissimilar as possible.



2.5 Average Dry Weather Flow Determination

For this study, four distinct average dry weather flow curves were established for each site location:

- Mondays Thursdays
- Fridays
- Saturdays
- Sundays

Flows for many sites differ on Friday evenings compared to Mondays through Thursdays. Starting around 7 pm, the flows are often decreased (compared to Monday through Thursday). Similarly, flow patterns for Saturday and Sunday were also separated due to their unique evening flow pattern. This type of differentiation can be important when determining I/I response, especially if a rain event occurs on a Friday, Saturday, or Sunday evening.

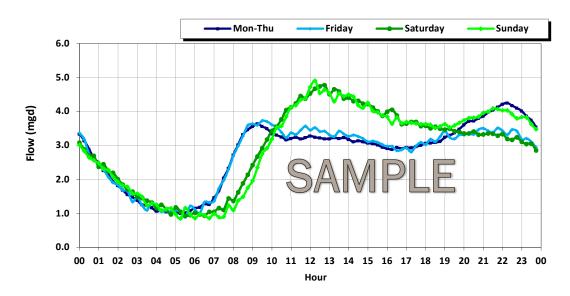


Figure 2-2 illustrates a sample of varying flow patterns within a typical dry week.

Figure 2-2. Sample ADWF Diurnal Flow Patterns

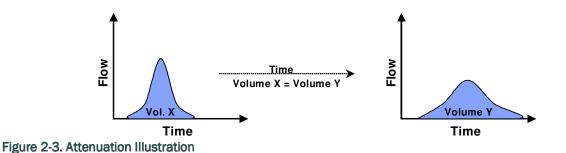
ADWF curves are taken from "Dry Days" when RDI had the least impact on the baseline flow. The overall average dry weather flow (ADWF) was calculated per the following equation:

$$ADWF = \left(ADWF_{Mon-Thu} \times \frac{4}{7}\right) + \left(ADWF_{Fri} \times \frac{1}{7}\right) + \left(ADWF_{Sat} \times \frac{1}{7}\right) + \left(ADWF_{Sun} \times \frac{1}{7}\right),$$



Flow Attenuation 2.6

Flow attenuation in a sewer collection system is the natural process of the reduction of the peak flow rate through redistribution of the same volume of flow over a longer period of time. This occurs as a result of friction (resistance), internal storage and diffusion along the sewer pipes. Fluids are constantly working towards equilibrium. For example, a volume of fluid poured into a static vessel with no outside turbulence will eventually stabilize to a static state, with a smooth fluid surface without peaks and valleys. Attenuation within a sanitary sewer collection system is based upon this concept. A flow profile with a strong peak will tend to stabilize towards equilibrium, as shown in Figure 2-3.



Within a sanitary sewer collection system, each individual basin will have a specific flow profile. As the flows from the basins combine within the trunk sewer lines, the peaks from each basin will (a) not necessarily coincide at the same time, and (b) due to the length and time of travel through the trunk sewers, peak flows will attenuate prior to reaching the treatment facility. The sum of the peak flows of the individual basins within a collection system will usually be greater than the peak flows observed at the treatment facility.



2.7 Inflow / Infiltration Analysis: Definitions and Identification

Inflow and infiltration (I/I) consists of storm water and groundwater that enter the sewer system through pipe defects and improper storm drainage connections and is defined as follows:

2.7.1 Inflow / Infiltration Analysis: Definitions and Identification

- Inflow: Storm water inflow is defined as water discharged into the sewer system, including private sewer laterals, from direct connections such as downspouts, yard and area drains, holes in manhole covers, cross-connections from storm drains, or catch basins.
- Infiltration: Infiltration is defined as water entering the sanitary sewer system through defects in pipes, pipe joints, and manhole walls, which may include cracks, offset joints, root intrusion points, and broken pipes.

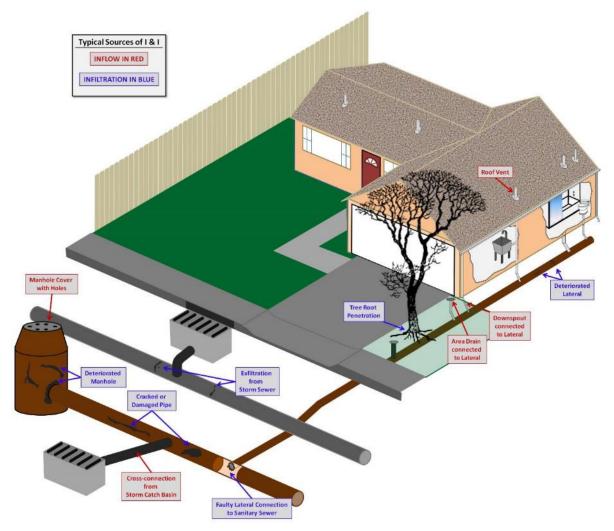


Figure 2-4 illustrates the possible sources and components of I/I.

Figure 2-4. Typical Sources of Infiltration and Inflow

2.7.2 Infiltration Components

Infiltration can be further subdivided into components as follows:

- Groundwater Infiltration: Groundwater infiltration depends on the depth of the groundwater table above the pipelines as well as the percentage of the system submerged. The variation of groundwater levels and subsequent groundwater infiltration rates is seasonal by nature. On a day-to-day basis, groundwater infiltration rates are relatively steady and will not fluctuate greatly.
- **Rainfall-Dependent Infiltration:** This component occurs as a result of storm water and enters the sewer system through pipe defects, as with groundwater infiltration. The storm water first percolates directly into the soil and then migrates to an infiltration point. Typically, the time of concentration for rainfall-related infiltration may be 24 hours or longer, but this depends on the soil permeability and saturation levels.
- **Rainfall-Responsive Infiltration** is storm water which enters the collection system indirectly through pipe defects, but normally in sewers constructed close to the ground surface such as private laterals. Rainfall-responsive infiltration is independent of the groundwater table and reaches defective sewers via the pipe trench in which the sewer is constructed, particularly if the pipe is placed in impermeable soil and bedded and backfilled with a granular material. In this case, the pipe trench serves as a conduit similar to a French drain, conveying storm drainage to defective joints and other openings in the system. This type of infiltration can have a quick response and graphically can look very similar to inflow.

2.7.3 Impact and Cost of Source Detection and Removal

Inflow:

- Impact: This component of I/I creates a peak flow problem in the sewer system and often dictates the required capacity of downstream pipes and transport facilities to carry these peak instantaneous flows. Because the response and magnitude of inflow is tied closely to the intensity of the storm event, the short-term peak instantaneous flows may result in surcharging and overflows within a collection system. Severe inflow may result in sewage dilution, resulting in upsetting the biological treatment (secondary treatment) at the treatment facility.
- Cost of Source Identification and Removal: Inflow locations are usually less difficult to find and less expensive to correct. These sources include direct and indirect cross-connections with storm drainage systems, roof downspouts, and various types of surface drains. Generally, the costs to identify and remove sources of inflow are low compared to potential benefits to public health and safety or the costs of building new facilities to convey and treat the resulting peak flows.

Infiltration:

- Impact: Infiltration typically creates long-term annual volumetric problems. The major impact is the cost of pumping and treating the additional volume of water, and of paying for treatment (for municipalities that are billed strictly on flow volume).
- Cost of Source Detection and Removal: Infiltration sources are usually harder to find and more expensive to correct than inflow sources. Infiltration sources include defects in deteriorated sewer pipes or manholes that may be widespread throughout a sanitary sewer system.



Item 4

2.7.4 Graphical Identification of I/I

Inflow is usually recognized graphically by large-magnitude, short-duration spikes immediately following a rain event. Infiltration is often recognized graphically by a gradual increase in flow after a wet-weather event. The increased flow typically sustains for a period after rainfall has stopped and then gradually drops off as soils become less saturated and as groundwater levels recede to normal levels. Realtime flows were plotted against ADWF to analyze the I/I response to rainfall events. Figure 2-5 illustrates a sample of how this analysis is conducted and some of the measurements that are used to distinguish infiltration and inflow. Similar graphs were generated for the individual flow monitoring sites and can be found in Appendix A.

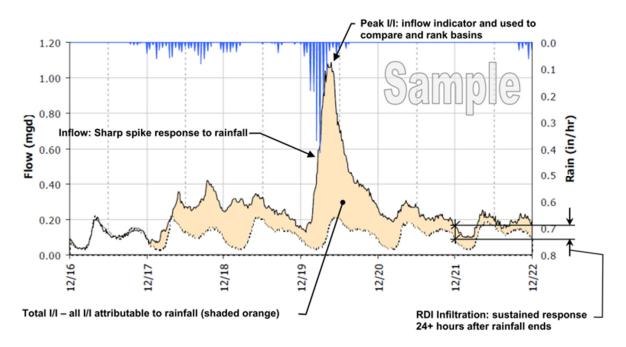


Figure 2-5. Sample Infiltration and Inflow Isolation Graph

2.7.5 Analysis Metrics

After differentiating I/I flows from ADWF flows, various calculations can be made to determine which I/I component (inflow or infiltration) is more prevalent at a particular site and to compare the relative magnitudes of the I/I components between drainage basins and between storm events:

- Inflow Peak I/I Flow Rate: Inflow is characterized by sharp, direct spikes occurring during a rainfall event. Peak I/I rates are used for inflow analysis. 4
- Groundwater Infiltration (GWI): GWI analysis is conducted by looking at minimum dry weather flow to average dry weather flow ratios and comparing them to established standards to quantify the rate of excess groundwater infiltration.
- Rainfall-Dependent Infiltration (RDI): RDI Analysis is conducted by looking at the infiltration rates at set periods after the conclusion of a storm event. Depending on the particular

⁴ I/I flow rate is the real time flow less the estimated average dry weather flow rate. It is an estimate of flows attributable to rainfall. By using peak measured flow rates (inclusive of ADWF), the I/I flow rate would be skewed higher or lower depending on whether the storm event I/I response occurs during low-flow or high-flow hours.



Combined I/I: The combined inflow and infiltration is measured in gallons per site and per storm event. Because it is based on combined I/I volume, it is used to identify the overall volumetric influence of I/I within the monitoring basin.

2.7.6 Normalization Methods

There are three ways to normalize the I/I analysis metrics for an "apples-to-apples" comparison amongst the different drainage basins:

- per-ADWF: The metric is divided by the established average dry weather flow rate and typically expressed as a ratio. Peaking Factors are examples of using ADWF to normalize data from different sites.
- per-IDM: The metric is divided by length of pipe (IDM [inch-diameter mile]) contained within the upstream basin. Final units typically are gallons per day (gpd) per IDM.
- per-ACRE: The metric is divided by the acreage of the upstream basin. Final units typically are gallons per day (gpd) per ACRE.

The infiltration and inflow indicators were normalized by all methods in this report and these results will be shown in the following I/I analysis results sections. For the purposes of basin rankings, however, only the per-ACRE normalization method will be used. This is due to some amount of uncertainty regarding the true IDM and ACRE measurements for some basins:

- Basin 13 (Olivewood LS): The entirety of the housing division has been included for IDM and ACRE measurements; however, it appears that this development is only 15% to 20% occupied and there is still much construction occurring. The safest metric for normalization in this case is the ADWF measurement.
- Basin 09 (Industrial LS): Given the industrial nature of this location and sporadic flows, it was uncertain if the IDM and ACRE measurements were representative of this basin. The safest metric for normalization in this case is the ADWF measurement.

It is noted that construction repairs and I/I reduction and mitigation methods are most typically priced on pipe length basis. The reviewing engineer may wish to review the rankings made in this report and consider the IDM metric when making CIP decisions.



3 Results and Analysis

Rainfall 3.1

V&A captured rainfall data from publicly available private weather stations (PWS⁵), allowing for good coverage over the flow monitoring area. Rain gauge locations are shown in Figure 3-1.

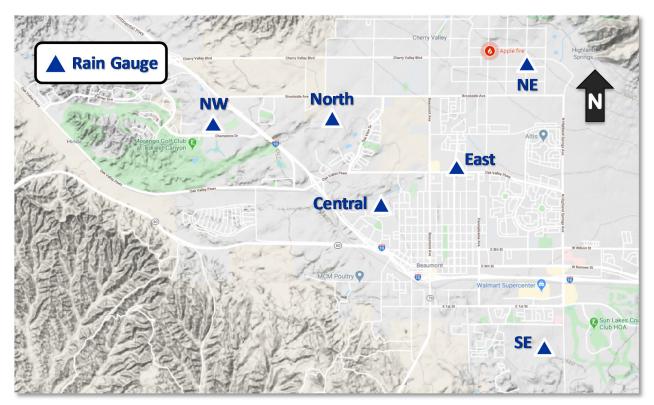


Figure 3-1. Map of Rain Gauge Locations

Figure 3-2 shows the rainfall during the flow monitoring period, averaged between the six rain gauges. Table 3-1 summarizes the rainfall that fell for all rain gauges for key rainfall events and overall for the flow monitoring period. Figure 3-3 shows the rain accumulation plot versus historical average⁶ period rainfalls for these same six rain gauges; rainfall for this study was approximately 2.5 times higher than historical normal precipitation for the days of the flow monitoring period.

⁶ Historical data taken from the WRCC (Station 040409 in Beaumont): <u>http://www.wrcc.dri.edu/summary/climsmsca.html</u>



⁵ National Oceanic and Atmospheric Administration (NOAA) Citizen Weather Observer Program (CWOP) members send datat from their PWS to the NOAA MADIS server; the data undergoes quality checking and then is distributed. While V&A has no direct control over the rain gauges, V&A performs additional QA/QC on the data to ensure its suitability for use.

Dates	Avg.	Northwest	North	Northeast	Central	East	Southeast
February 22/23, 2020	0.80	0.54	0.76	0.97	0.72	0.82	1.01
March 9/10, 2020	1.49	1.75	1.92	1.10	1.36	1.47	1.36
March 12/13, 2020	3.92	3.76	4.39	3.88	4.04	4.20	3.26
March 16 - 23, 2020	2.55	2.46	3.19	2.43	2.73	2.14	2.34
April 6/7/8, 2020	4.18	3.96	4.62	3.64	4.43	4.46	3.96
Period Total:	13.18	12.71	15.15	12.30	13.53	13.34	12.06

Table 3-1. Summary of Rainfall

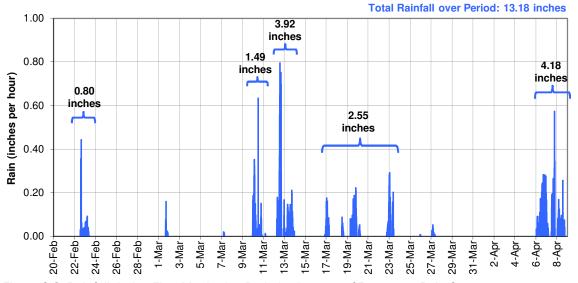
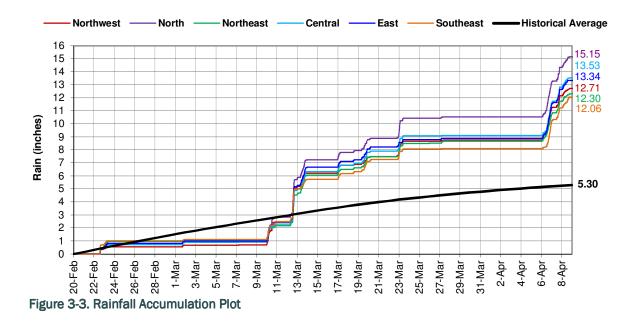


Figure 3-2. Rainfall during Flow Monitoring Period – Average of Beaumont Rain Gauges



3.1.1 Regional Rainfall Event Classification

It is important to classify the relative size of a major storm event that occurs over the course of a flow monitoring period⁷. Rainfall events are classified by intensity and duration. Based on historical data, frequency contour maps for storm events of given intensity and duration have been developed by the NOAA for all areas within the continental United States (Figure 3-4).

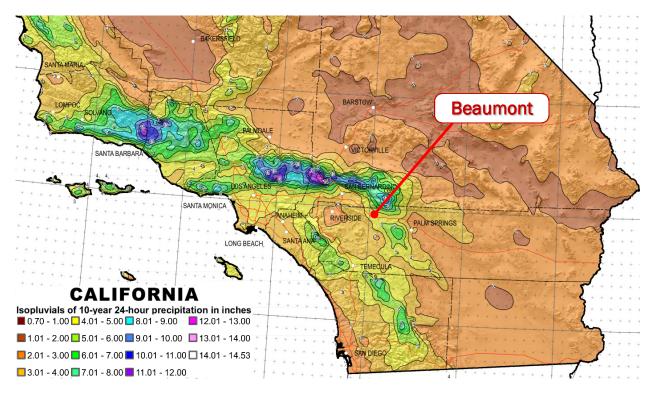


Figure 3-4. NOAA Southern California Rainfall Frequency Map

For example, the NOAA Rainfall Frequency Atlas[®] classifies a 10-year, 24-hour storm event at the 'Central' rain gauge location as 4.21 inches. This means that in any given year, at this specific location, there is a 10% chance that 4.21 inches of rain will fall in any 24-hour period.

From the NOAA frequency maps, for a specific latitude and longitude, the rainfall densities for period durations ranging from 1 hour to 60 days are known for rain events ranging from 1-year to 100-year intensities. These are plotted to develop a rain event frequency map specific to each rainfall monitoring site. Superimposing the peak measured densities for the rainfall events on the rain event frequency plot determines the classification of the rainfall event.

Figure 3-5 and Figure 3-6 illustrate the rain event classification plots at the Central Rain Gauge for both shortterm and long-term rainfall, respectively. On these plots, for example, the March 12/13 rainfall event was classified as a 25-year, 3-hour rainfall event and the 30-day period from March 10 to April 9 was classified as a 10-year, 30-day event.

⁸ NOAA Western U.S. Precipitation Frequency Maps Atlas 14, Volume 6, 2011: ftp://hdsc.nws.noaa.gov/pub/hdsc/data/sw/ca10y24h.pdf



⁷ Sanitary sewers are often designed to withstand I/I contribution to sanitary flows for specific-sized "design" storm events.

Table 3-2 summarizes the classifications for the main storm events of this study at each rain gauge location. The highest classification for all rain gauges was a three-hour period (from approximately 1:15 pm to 4:15pm) on March 12, 2020. Figure 3-7 illustrates this classification regionally.

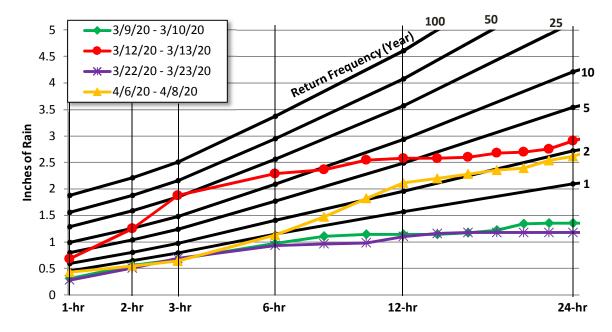


Figure 3-5. Short-Term Rainfall Event Classification – Central Rain Gauge

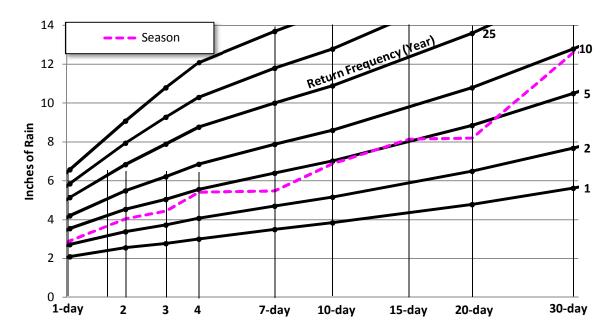


Figure 3-6. Long-Term Rainfall Event Classification – Central Rain Gauge



Rain Gauge	March 9/10	March 12/13	March 22/23	April 6/7/8	March 10 – April 9, 2020
Northwest	1.1-year, 12-hr	30-year, 3-hour 3.5-year, 24-hr	< 1-year	2-year, 12-hour 1.6-year, 24-hr	8-year, 30-day
North	1-year, 12-hour	35-year, 3-hour 4-year, 24-hour	2-year, 3-hour	2.5-year, 12-hr 1.9-year, 24-hr	15-year, 30-day
Northeast	< 1-year	15-year, 3-hour 1.6-year, 24-hr	< 1-year	< 1-year	4.5-year, 30-day
Central	< 1-year	25-year, 3-hour 3-year, 24-hour	< 1-year	3-year, 12-hour 1.8-year, 24-hr	10-year, 30-day
East	< 1-year	35-year, 3-hour 3-year, 24-hour	< 1-year	2.2-year, 12-hr 1.8-year, 24-hr	8-year, 30-day
Southeast	< 1-year	25-year, 3-hour 1.8-year, 24-hr	< 1-year	2-year, 12-hour 1.1-year, 24-hr	6-year, 30-day

Table 3-2. Rainfall Event Classification

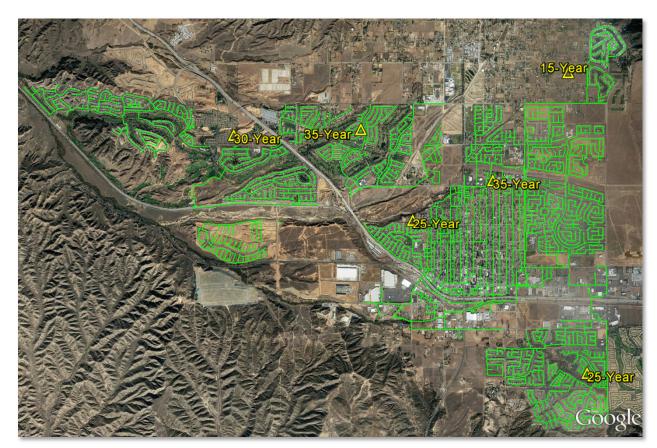


Figure 3-7. March 12 Peak Storm Event Classification (per rain gauge, duration = 3-hours)



3.1.2 Rain Gauge Triangulation Distribution

The rainfall affecting the sanitary sewer collection system basins must be calculated based on the proximity to the rain gauge locations. The mean precipitation for each site's upstream basin was calculated by taking data from the rain gauges and using the inverse distance weighting (IDW) method. IDW is an interpolation method that assumes the influence of each rain gauge location diminishes with distance. The center of an upstream basin⁹ is identified, and a weighted triangulated average is taken of the precipitation data from nearby rain gauge locations.

The IDW function is as follows:

weight(d) =
$$\frac{1/d^{p}}{\sum 1/d^{p}}$$
, where: d = distance p = power (p > 0)

The value of p is user defined. The most common choice for hydrological studies of watershed areas is p = 2.

Figure 3 6 illustrates the IDW method with sample data. The rain gauge distribution as calculated for each flow monitoring basin is shown in Table 3-3.

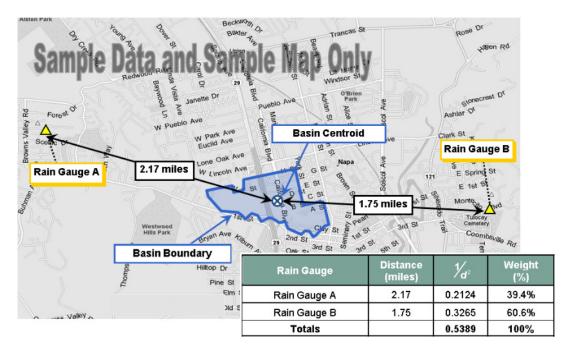


Figure 3-8. Rainfall Inverse Distance Weighting Method

⁹ Note that the full basin upstream of the site was used instead of the isolated basins as the rain data will be compared to the flow at each site



Site	Northwest	North	Northeast	Central	East	Southeast
FM-01	0%	2.1%	92.8%	0%	5.2%	0%
FM-02	1.7%	36.9%	2.6%	26.2%	31.5%	1.1%
FM-03	0%	0.4%	30.5%	13.9%	47.4%	7.8%
FM-04	0%	0%	21.8%	12.8%	56.0%	9.4%
FM-05	0%	0%	0%	0.7%	0.9%	98.4%
FM-06	0%	0%	0%	6.9%	7.5%	85.6%
FM-07	3.1%	63.9%	2.2%	23.7%	7.1%	0%
FM-08	3.5%	71.0%	2.4%	15.2%	7.9%	0%
FM-09	12.6%	0%	0%	75.0%	0%	12.4%
FM-10	83.8%	12.1%	0%	4.1%	0%	0%
FM-11	100.0%	0%	0%	0.0%	0%	0%
FM-12	82.3%	10.2%	0%	7.6%	0%	0%
FM-13	74.0%	0%	0%	26.0%	0%	0%
FM-14	100.0%	0%	0%	0%	0%	0%

Table 3-3. Rain Gauge Distribution per Monitoring Site



3.2 Flow Monitoring: Average Dry Weather

For this study, two sets of average dry weather flow (ADWF) curves were established due to the advent of "shelter-in-place" (SIP) order for Covid-19. There were generally three time-periods during this study, as detailed below and shown in Figure 3-9.

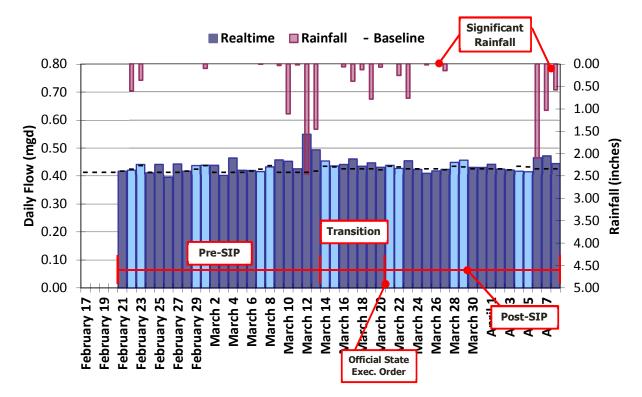


Figure 3-9. Shelter-in-Place Illustration (FM-07 [Marshall Creek LS] flows shown)

- 1. Pre-SIP: Sets of ADWF curves were established during "typical" dry days prior to SIP and can be used for modelling purposes.
- 2. Transition period: On March 13, schools were closed statewide. Although "Shelter-in-Place" was officially announced on March 20, 2020, it is clear from the flow monitoring data that people were already transitioning (in terms of sewage) towards SIP behavior starting from March 13. Saturday, March 14, was already a transition day, and by Sunday, March 15, people were mostly in SIP mode.

The true predicted ADWF curves during the transition period would be speculative at best. When looking at the transition period, the safer analyses would be to review I/I response during the earlymorning hours when human behavior is more predictable. However, even during this period, we are observing more flows from midnight to 3 am hours, presumably people shifting schedules and working late.

- The main large rainfall event (March 12) occurred prior to the transition period when ADWF curves were still generally stable. I/I analyses for three different rain events were analyzed and shown in the Appendix; however, the March 12 I/I analyses was used for the ranking metrics later in this report.
- 3. Post-SIP: Second sets of ADWF curves were established during "typical" dry days post-SIP and were used for I/I analysis that occurred during the transition period and during the post-SIP period (April 6/7/8).



There were clear differences in ADWF patterns and volumes before and after the 'shelter-in-place' order. Daily peaks are delayed by 1-2 hours and without the sharp early-morning peak.

Figure 3-10 shows the sets of pre-SIP ADWF, post-SIP curves for Site FM-07, and a direct comparison of the pre- and post-SIP curves for weekday diurnal patterns. Table 3-4 summarizes the dry weather flow data measured for this study. Figure 3-11 illustrates a flow schematic of the ADWF values (pre-SIP) for the flow monitoring sites of this study. ADWF curves for each site pre- and post-SIP can be found in Appendix A.

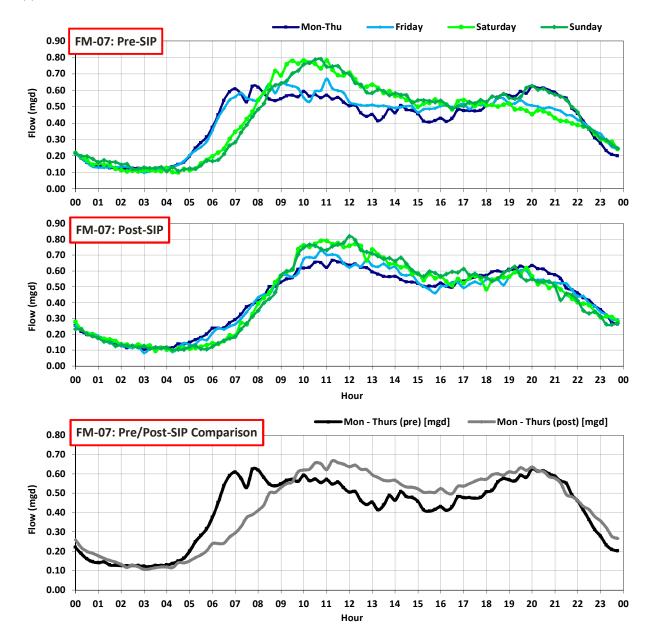
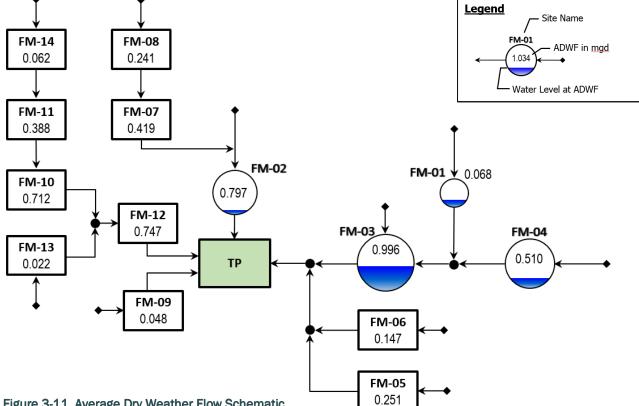


Figure 3-10. FM-07: pre-SIP and post-SIP Average Dry Weather Flow Curves with Comparison

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nem	.

		Pre-S	SIP ADWI	= (mgd)			Post-S	SIP ADWF	(mgd)		CID
Site	Mon- Thu	Fri	Sat	Sun	Overall	Mon- Thu	Fri	Sat	Sun	Overall	SIP Delta
FM-01	0.066	0.066	0.073	0.074	0.068	0.072	0.073	0.084	0.081	0.075	10%
FM-02	0.811	0.770	0.823	0.743	0.797	0.820	0.811	0.802	0.753	0.806	1%
FM-03	1.005	0.904	0.978	1.073	0.996	1.127	1.153	1.191	1.139	1.142	15%
FM-04	0.497	0.480	0.511	0.591	0.510	0.612	0.617	0.623	0.674	0.623	22%
FM-05	0.253	0.256	0.243	0.244	0.251	0.217	0.230	0.226	0.222	0.221	-12%
FM-06	0.140	0.145	0.156	0.170	0.147	0.142	0.144	0.145	0.158	0.145	-2%
FM-07	0.414	0.418	0.425	0.438	0.419	0.426	0.423	0.435	0.433	0.428	2%
FM-08	0.241	0.241	0.237	0.247	0.241	0.237	0.239	0.245	0.246	0.240	0%
FM-09	0.056	0.052	0.032	0.028	0.048	0.063	0.072	0.026	0.015	0.052	8%
FM-10	0.707	0.686	0.712	0.756	0.712	0.827	0.856	0.842	0.871	0.840	18%
FM-11	0.381	0.361	0.393	0.439	0.388	0.441	0.444	0.459	0.441	0.444	14%
FM-12	0.745	0.734	0.735	0.778	0.747	0.853	0.907	0.906	0.893	0.874	17%
FM-13	0.022	0.022	0.022	0.024	0.022	0.025	0.026	0.026	0.028	0.026	15%
FM-14	0.060	0.062	0.062	0.067	0.062	0.064	0.064	0.065	0.064	0.064	4%

Table 3-4. Dry Weather Flow







Flow Monitoring: Peak Measured Flows / Pipeline Capacity 3.3

Peak measured flows and the hydraulic grade line data (flow depths) are important to understanding the capacity limitations. The capacity analysis terms used in the text below are defined as follows:

- Peaking Factor: Peaking factor is defined as the peak measured flow divided by the average dry weather flow (ADWF). Peaking factors are influenced by many factors, including size and topography of the tributary area, flow attenuation, flow restrictions, and characteristics of I/I entering the collection system. Municipal standards for peaking factor vary agency by agency; the City should refer to jurisdictional standards when evaluating peaking factors¹⁰. For this study, peaking factors over 5.0 are highlighted RED.
- d/D Ratio: The d/D ratio is the peak measured depth of flow (d) divided by the pipe diameter (D). The d/D ratio for each site was computed based on the maximum depth of flow for the study. Standards for d/D ratio vary from agency to agency, but typically range between $d/D \le$ 0.5 and $d/D \le 0.75$. The City should refer to jurisdictional standards when evaluating d/Dratios. For this study, d/D ratios over 0.75 are highlighted ORANGE. Surcharged sites are highlighted RED.

Table 3-5 summarizes the peak flows, levels, d/D ratios, and peaking factors during the flow monitoring period. Capacity analysis data are presented on a site-by-site basis and represents the hydraulic conditions only at the site nodes; hydraulic conditions in other areas of the collection system will differ.

Monitored Site	ADWF pre-SIP ^a (mgd)	Peak Measured Flow (mgd)	Peaking Factor	Pipe Diameter, D (in)	Max Depth, <i>d</i> (in)	Max d/D Ratio	Surcharge above pipe crown (ft)
FM-01	0.068	0.39	5.7	8	3.3	0.42	-
FM-02	0.797	1.97	2.5	24	4.1	0.17	-
FM-03	0.996	3.21	3.2	30	18.6	0.62	-
FM-04	0.510	1.57	3.1	21	6.8	0.33	-
FM-05	0.251	0.62	2.5	n/a	n/a	n/a	n/a
FM-06	0.147	0.48	3.2	n/a	n/a	n/a	n/a
FM-07	0.419	1.40	3.3	n/a	n/a	n/a	n/a
FM-08	0.241	0.57	2.4	n/a	n/a	n/a	n/a
FM-09	0.048	0.25	5.1	n/a	n/a	n/a	n/a
FM-10	0.712	1.76	2.5	n/a	n/a	n/a	n/a
FM-11	0.388	0.87	2.2	n/a	n/a	n/a	n/a
FM-12	0.747	1.94	2.6	n/a	n/a	n/a	n/a
FM-13	0.022	0.070	3.1	n/a	n/a	n/a	n/a
FM-14	0.062	0.12	2.0	n/a	n/a	n/a	n/a

Table 3-5. Capacity Analysis Summary

^A Pre-SIP ADWF was used for this analysis.

¹⁰ WEF Manual of Practice FD-6 and ASCE Manual No. 62 suggests typical peaking factor ratios range between 3 and 4, with higher values possibly indicative of pronounced I/I flows.

The following capacity analysis results are noted:

- Peaking Factors: Only two sites had peaking factors over 5.0.
 - Site FM-01: Site FM-01 was an open-channel flow monitoring site and was not influenced by pump station operations. Peak flows occurred during the March 12 rainfall event.
 - Site FM-09: FM-09 is the Industrial Park LS, and peak flows did not occur corresponding to I/I contribution of a large rainfall event. The higher peaking factor for this site is attributed to pump station operations and the type of service (industrial flows).
- d/D Ratio: All open-channel flow monitoring sites had d/D ratios less than 0.75 for the entirety of the flow monitoring period.

Figure 3-12 shows bar graph summaries of the peaking factors and d/D ratios. Figure 3-13 shows the schematic diagram of the peak measured flows of the whole monitoring period, with peak flow levels shown for open-channel flow monitoring sites.

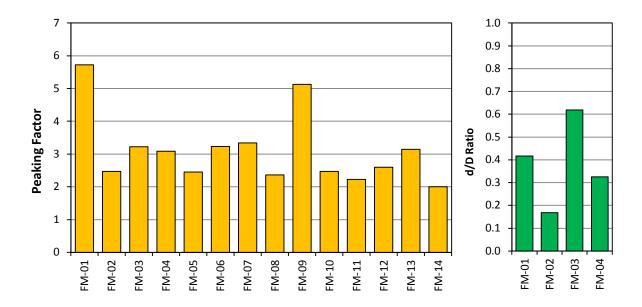


Figure 3-12. Peaking Factors and Max d/D Ratios



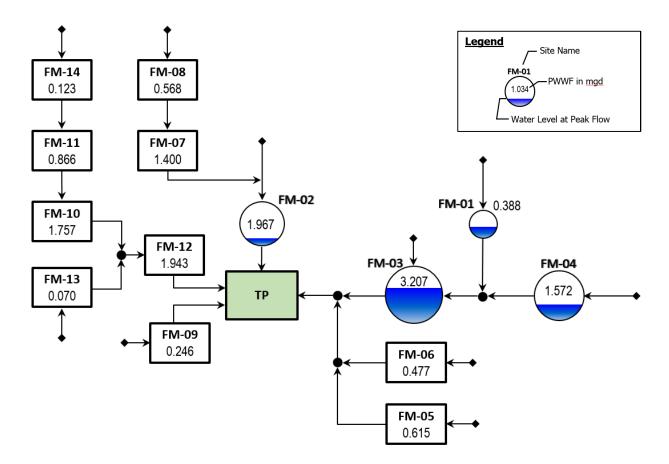


Figure 3-13. Peak Measured Flow (Flow Schematic)



3.4 Inflow and Infiltration

3.4.1 Preface

I/I analyses are presented on a basin-by-basin basis. Items relevant to the analysis in this study are noted below and referenced in Figure 3-14:

- Basin 12: FM-12 (Beaumont Mesa LS) schematically operates as the sum of flow from FM-10 and FM-13; the isolated "Basin 12" does not have a substantial collection area and is not analyzable due to flow subtraction (see Section 2.4). Basin 12 will not be evaluated.
- Pump Stations and Peak Flows: There are several pump stations within the collection system. Basins downstream from ON/OFF (constant speed) pump stations are subject to attenuation (Section 2.6) and forced peak flows. Peak flows can be dampened due to being throttled while held in wet wells. Conversely, peak flows out of a pump station are typically higher than flows into a pump station and are strictly based on the pumping rates (not influent rates) from the pump station. Peak flows downstream from pump stations should be evaluated appropriately.
- I/I Isolation: The I/I flow rate is the real-time flow less the estimated average dry weather flow rate (shown below as the RED line).
- Inflow: Inflow is usually recognized graphically by large-magnitude, short-duration spikes immediately following a rain event. The peak inflow rate is the highest spike in the isolated I/I hydrograph immediately following the evaluated rainfall event.
- RDI: RDI is typically taken as the average I/I flow rate measured approximately 24 to 36 hours after the rainfall event has concluded. Throughout the region, for the rainfall events monitored, there was minimal RDI; systemwide, flows returned to near-baseline levels within 24 hours. Basins 5 and 7 may have shown a hint of a sustained RDI component; however, n RDI analysis will not be made for this study. Given the scale of the rainfall events that occurred during this study, RDI does not appear to be an issue for the City.
- Combined I/I: the totalized volume (in gallons) of both inflow and RDI over the course of a rainfall event (shown below as the orange area).

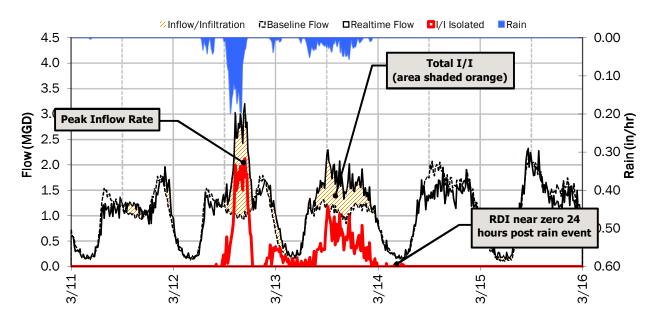


Figure 3-14. I/I Isolation, Site FM-03, March 12/13 Rainfall Event

For example, for FM-10, a large component of the flows into the pump station are connected directly from upstream flow meter FM-11, the Lower Oak Valley Lift Station force main. The resulting spikes are obvious and occur daily; the exact timing is random and cannot be predicted (refer to Figure 3-15). During the March 12 storm event, there is also a clear inflow response. To best comparatively measure this inflow versus other flow monitoring sites, the inflow above expected noise is measured to prevent an exaggerated and misinterpreted inflow measurement.

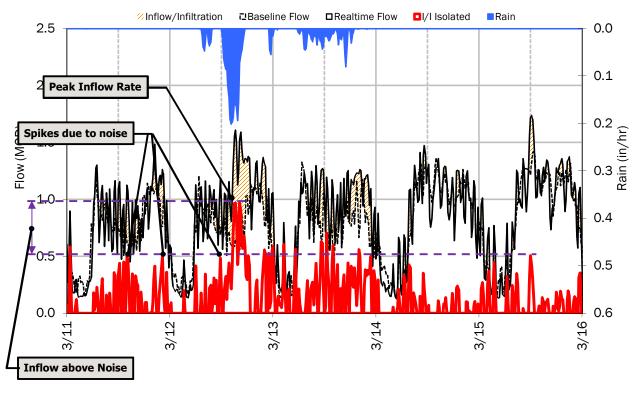


Figure 3-15. I/I Isolation, Site FM-10, March 12/13 Rainfall Event



3.4.2 Inflow Results Summary

Inflow is storm water discharged into the sewer system through direct connections such as downspouts, area drains, cross-connections to catch basins, etc. These sources transport rain water directly into the sewer system and the corresponding flow rates are tied closely to the intensity of the storm. This component of I/I often causes a peak flow problem in the sewer system and often dictates the required capacity of downstream pipes and transport facilities to carry these peak instantaneous flows.

Inflow results were taken from the March 12/13 rainfall event and considered potential noise due to spikes from pump stations or service type. Table 3-6 summarizes the peak measured inflow and inflow analysis results for the relevant flow monitoring basins; the "top 3" ranked basins have been shaded RED; basins ranked 4-6 have been shaded ORANGE. Figure 3-16 shows a temperature map summary of the inflow analysis results per basin. The following inflow results are noted:

Basins 1, 3, and 13 had the highest normalized peak I/I rates, an indicator of high inflow within the flow monitoring basin.

Basin	ADWF (mgd)	Inflow Rate (mgd)	Peak I/I per IDM (gpd/IDM)	Peak I/I per ACRE (gpd/ACRE)	Peak I/I per ADWF Ratio	Final Inflow Ranking
Basin 01	0.068	0.290	5,337	632	4.28	1
Basin 02	0.377	0.530	1,858	462	1.40	5
Basin 03	0.418	1.234	7,440	2,124	2.95	2
Basin 04	0.510	0.448	1,485	365	0.88	8
Basin 05	0.251	0.301	1,973	347	1.20	6
Basin 06	0.147	0.033	369	78	0.22	11
Basin 07	0.179	0.266	7,418	1,955	1.49	4
Basin 08	0.241	0.258	1,569	213	1.07	7
Basin 09	0.048	0.006	234	97	0.13	12
Basin 10	0.324	0.208	1,268	225	0.64	10
Basin 11	0.326	0.250	2,396	388	0.77	9
Basin 13	0.022	0.035	628	111	1.56	3
Basin 14	0.062	0.006	305	53	0.09	13

Table 3-6. Results and Rankings, Inflow Analysis



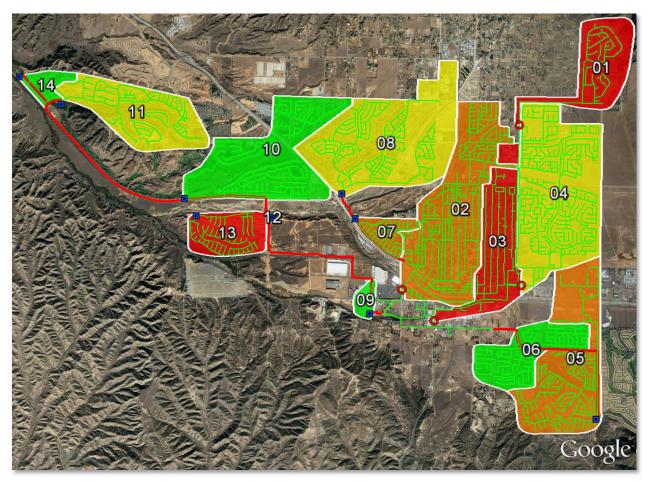


Figure 3-16. Temperature Map: Inflow Final Basin Rankings



3.4.3 Combined I/I Results

Combined I/I analysis considers the totalized volume (in gallons) of both inflow and rainfall-dependent infiltration over the course of a storm event. Table 3-7 summarizes the combined I/I flow results from the March 12/13 rain event. The "top 3" ranked basins have been shaded RED; basins ranked 4-6 have been shaded **ORANGE**. A temperature map is shown in Figure 3-17.

The following total I/I results are noted:

Basins 1, 3, and 7 had the highest normalized combined I/I rates, an indicator of high combined inflow and infiltration within the flow monitoring basin.

Basin	Total I/I (gallons)	Total I/I per-IDM (gal/IDM/ inch-rain)	Total I/I per-ACRE (R-Value)	Total I/I per-ADWF (MG/adwf/ inch-rain)	Final Total I/I Ranking
Basin 01	120,553	566	0.25%	0.45	1
Basin 02	289,648	144	0.10%	0.19	5
Basin 03	335,977	158	0.13%	0.20	3
Basin 04	189,565	156	0.14%	0.09	9
Basin 05	117,106	234	0.15%	0.14	7
Basin 06	26,709	89	0.07%	0.05	12
Basin 07	142,914	177	0.10%	0.20	2
Basin 08	85,298	121	0.06%	0.08	10
Basin 09	18,854	184	0.28%	0.10	8
Basin 10	246,795	219	0.14%	0.19	4
Basin 11	94,206	203	0.12%	0.08	11
Basin 13	13,305	63	0.04%	0.16	6
Basin 14	9,059	128	0.08%	0.04	13

Table 3-7. Results and Rankings, Total I/I Analysis



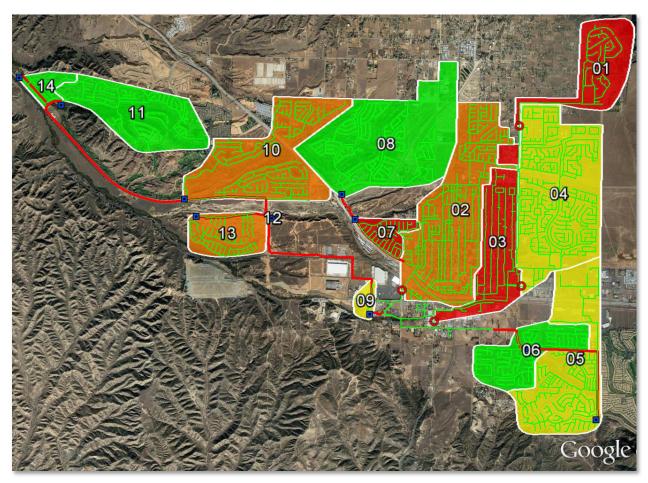


Figure 3-17. Temperature Map: Combined I/I Final Basin Rankings



4 Recommendations

V&A advises that future I/I reduction plans consider the following recommendations:

- 1. **Master Plan and Model Implementation**: This study focuses on inflow and infiltration generation; however, the capacity deficiencies of the collection system may be of greater concern relative to I/I response during peak wet weather events. The City may wish to have a model designed and/or a master plan study conducted to determine the overall needs of the City relative to I/I. Or simply, the study results can be used to update the master plan and compare with previous model assumptions and flow monitoring results.
- 2. Determine I/I Reduction Program: The City should examine its I/I reduction needs to determine their needs and goals for a future I/I reduction program.
 - a. If peak flows, sanitary sewer overflows, and pipeline capacity issues are of greater concern, then priority can be given to investigate and reduce sources of inflow within the basins with the greatest inflow problems.
 - b. If total infiltration and general pipeline deterioration are of greater concern, then the program can be weighted to investigate and reduce sources of infiltration within the basins with the greatest infiltration problems. Generally, RDI rates were very low for this system.
 - c. Basins 1 and 3 ranked in the top 3 for both inflow and total combined I/I. An I/I reduction program could begin within these basins.
- 3. I/I Reduction Cost Effective Analysis: The City should conduct a study to determine which is more cost-effective: (1) locating the sources of inflow/infiltration and systematically rehabilitating or replacing the faulty pipelines; or (2) continued treatment of the additional rainfall dependent I/I flow.



Appendix A Flow Monitoring Sites: Data, Graphs, and Information



City of Beaumont

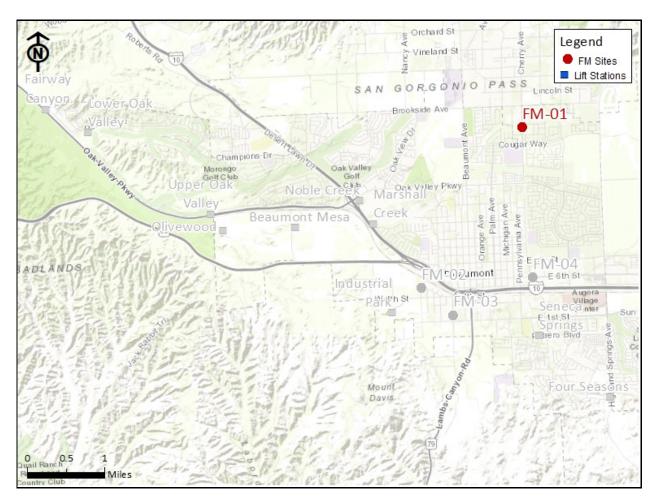
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-01

City Structure: SSMH01061

Location: Cherry Avenue north of Mary Lane

Data Summary Report



Vicinity Map: FM-01

FM-01

Site Information

Location:	Cherry Avenue north of Mary Lane
City Manhole:	SSMH01061
Coordinates:	116.9642°W, 33.9574°N
Rim Elevation (Earth):	2750 feet
Pipe Diameter:	8 inches
ADWF:	0.072 mgd
Peak Measured Flow:	0.388 mgd



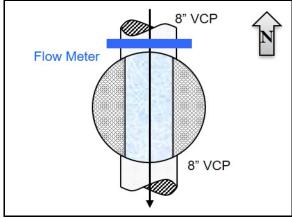


Sanitary Map



Street View

Satellite Map



Flow Sketch

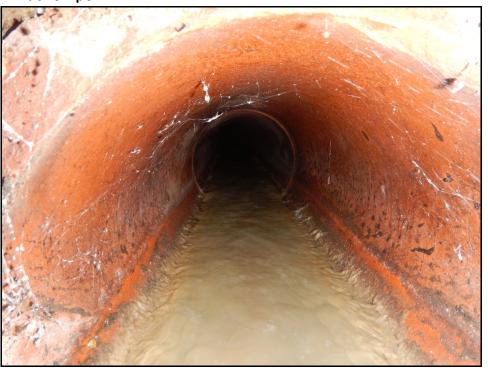


Plan View

FM-01

Additional Site Photos

Effluent Pipe



Monitored Influent Pipe

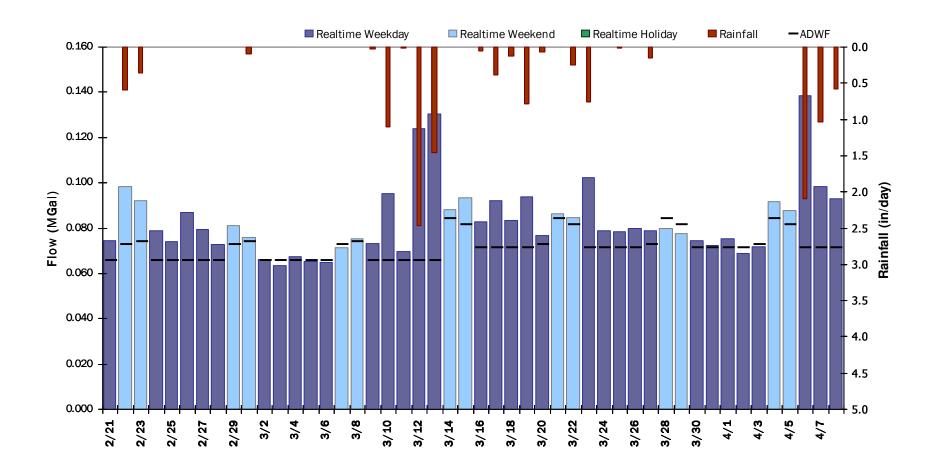


ltem 4.

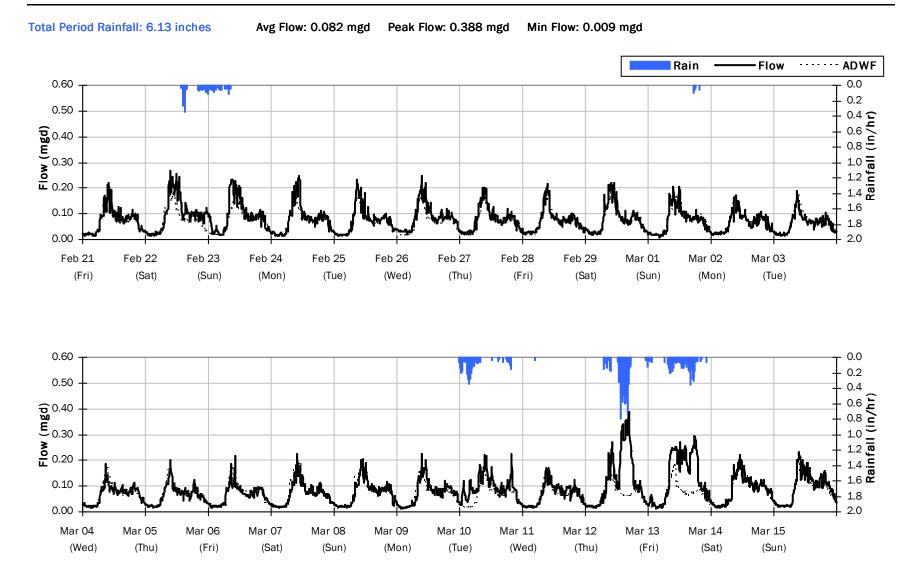
FM-01 Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.084 MGal Peak Daily Flow: 0.138 MGal Min Daily Flow: 0.064 MGal

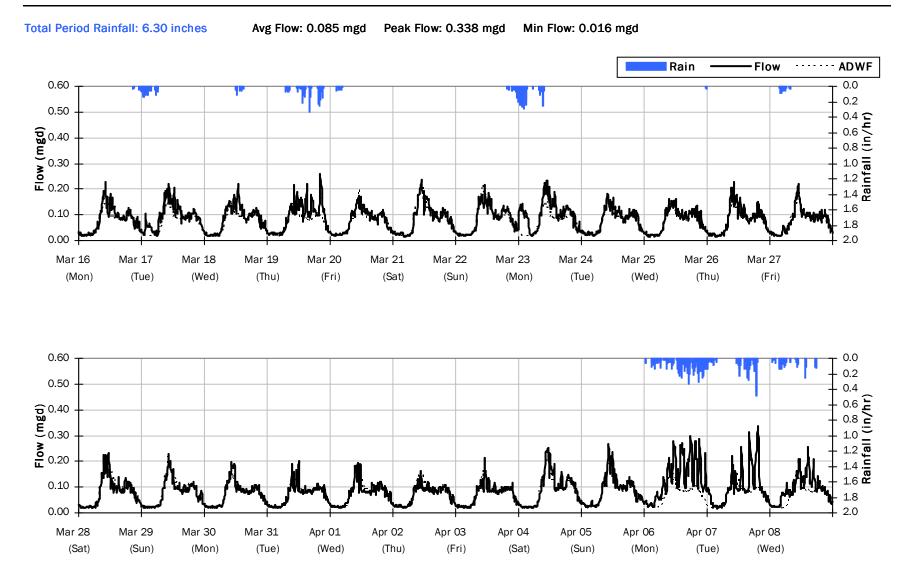
Total Period Rainfall: 12.42 inches



FM-01 Flow Summary: 2/21/2020 to 3/15/2020



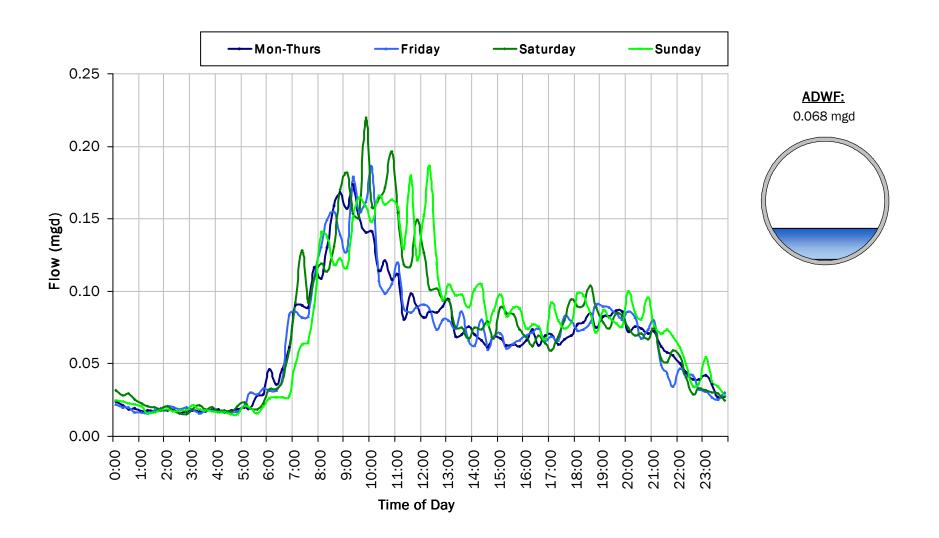
FM-01 Flow Summary: 3/16/2020 to 4/8/2020



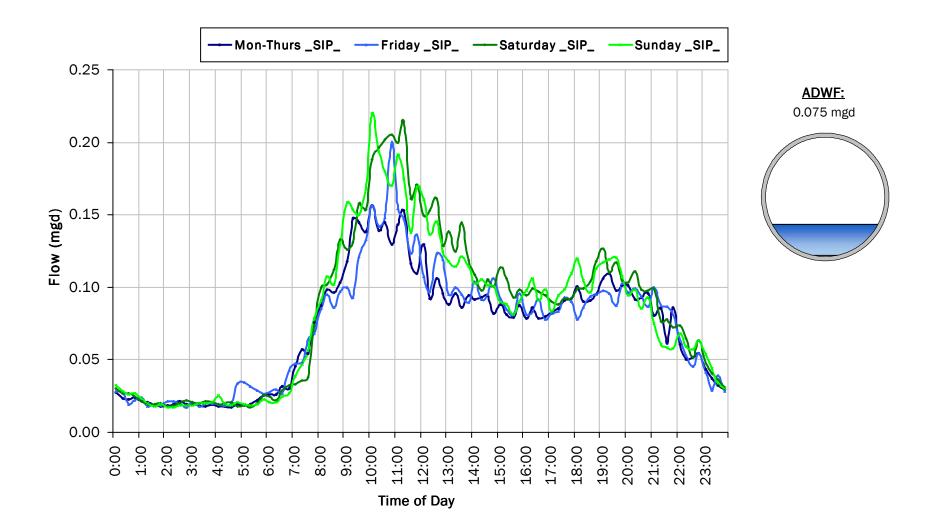
V&A | FM-01-6

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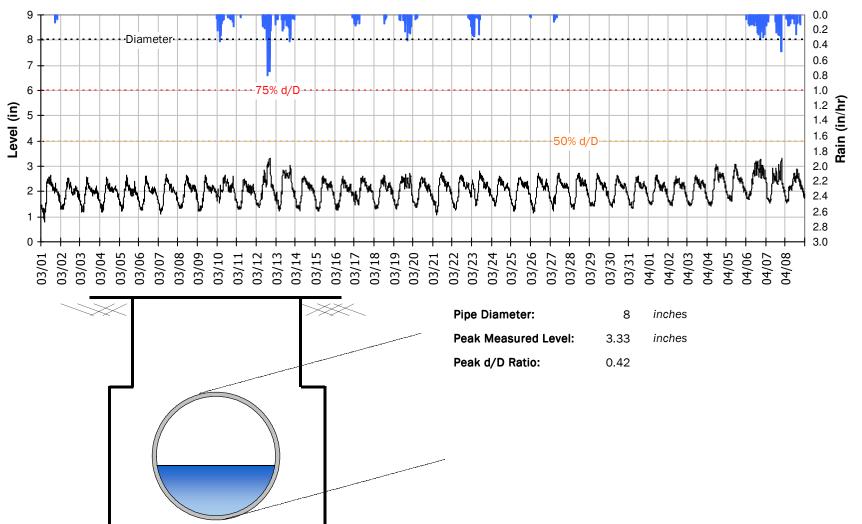
FM-01 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)





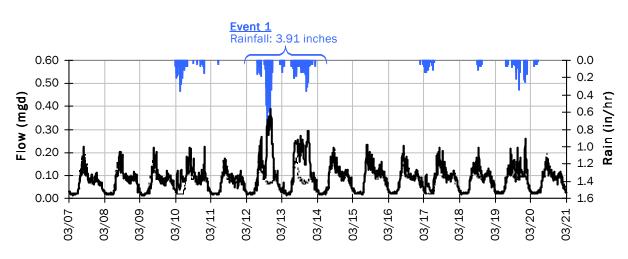


FM-01 Site Capacity and Surcharge Summary

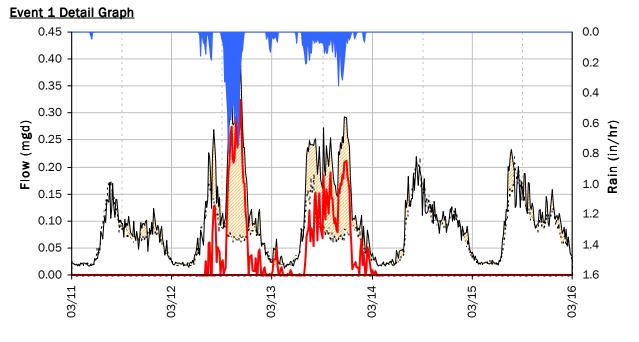


Realtime Flow Levels with Rainfall Data over Monitoring Period

FM-01 I/I Summary: Event 1



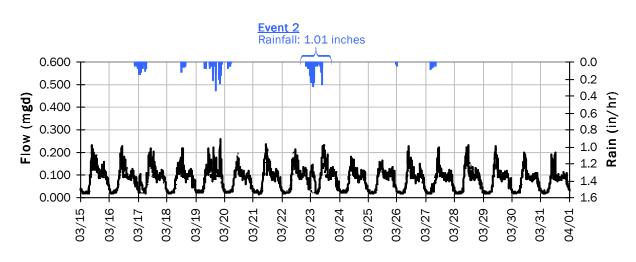
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 3.91 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow:	0.39 mgd	Peak I/I Rate:	0.33 mgd
PF:	5.41	Total I/I:	121,000 gallons
Peak Level: d/D Ratio:	3.33 in 0.42		

FM-01 I/I Summary: Event 2



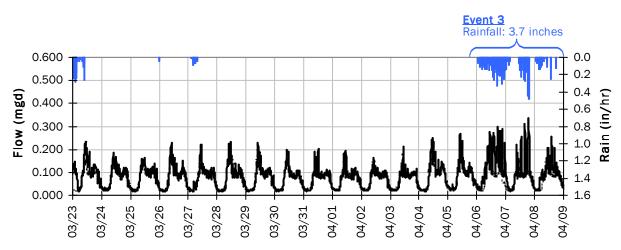
Event 2 Detail Graph 0.250 0.0 0.2 0.200 0.4 0.6 **Rain (in/hr)** 9.0 Flow (mgd) 0.150 0.100 1.2 0.050 1.4 0.000 1.6 03/23 03/22 03/24 03/25 03/21

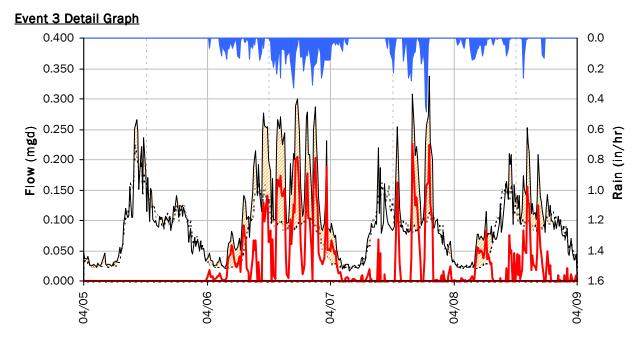
Storm Event I/I Analysis (Rain = 1.01 inches)

Capacity		Inflow / Infiltration	
Peak Flow: PF:	0.23 mgd 3.24	Peak I/I Rate: Total I/I:	0.13 mgd 30,000 gallons
Peak Level: d/D Ratio:	2.79 in 0.35		

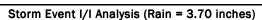
Baseline and Realtime Flows with Rainfall Data over Monitoring Period

FM-01 I/I Summary: Event 3



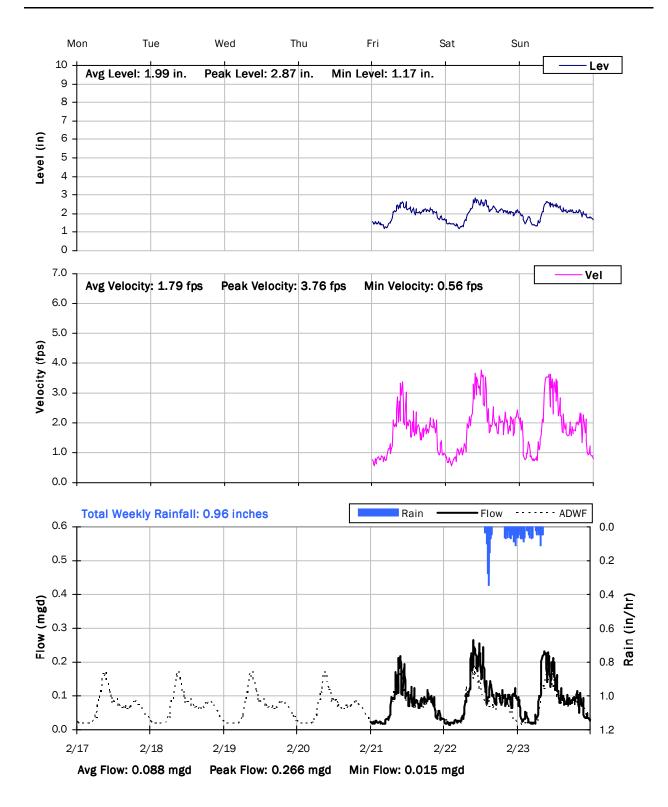


Baseline and Realtime Flows with Rainfall Data over Monitoring Period



<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.34 mgd 4.71	Peak I/I Rate: Total I/I:	0.23 mgd 103,000 gallons
Peak Level: d/D Ratio:	3.32 in 0.42		

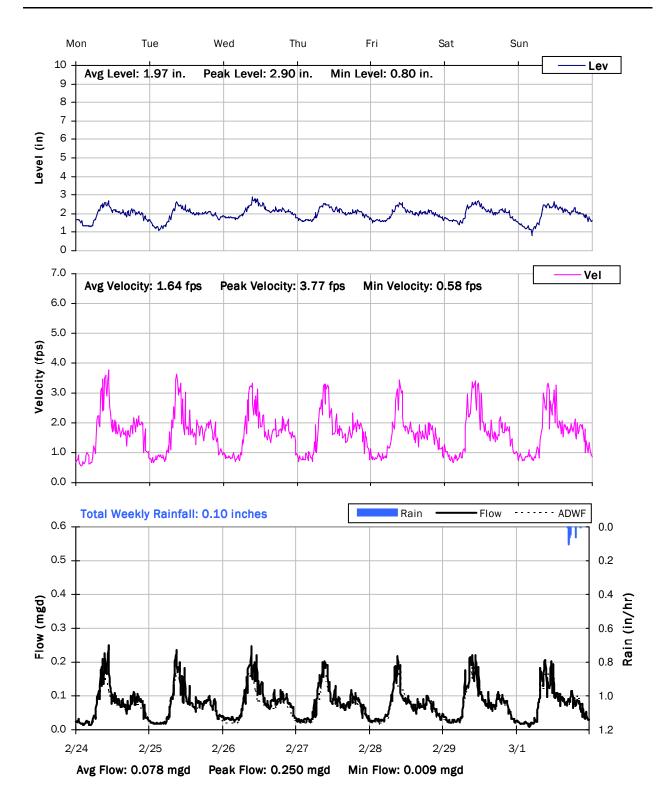
FM-01 Weekly Level, Velocity and Flow Hydrographs 2/17/2020 to 2/24/2020



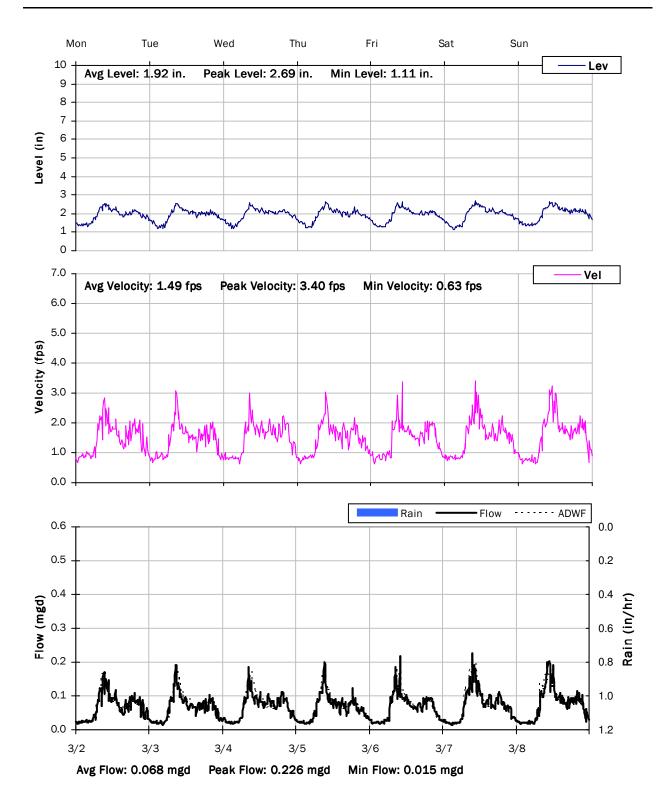
V&A | FM-01 - 13

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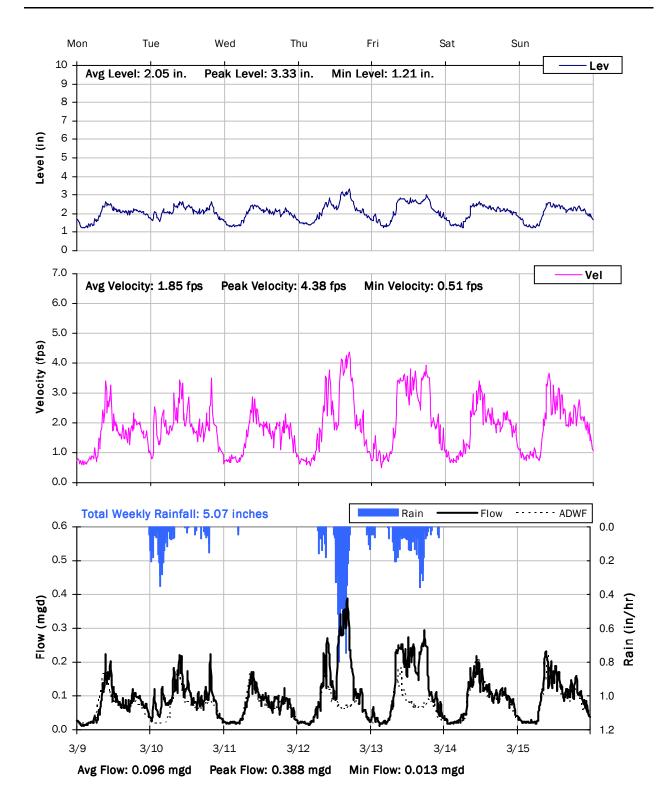
FM-01 Weekly Level, Velocity and Flow Hydrographs 2/24/2020 to 3/2/2020



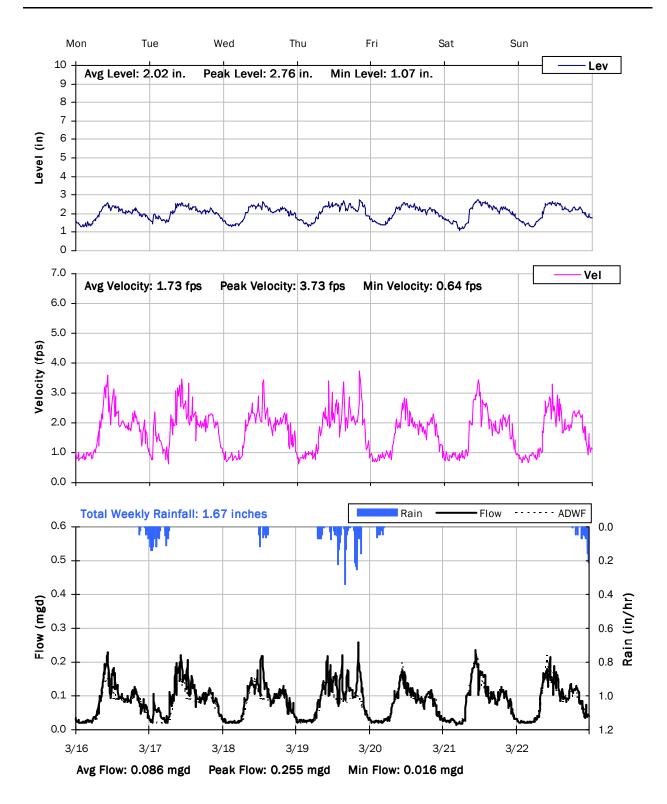
FM-01 Weekly Level, Velocity and Flow Hydrographs 3/2/2020 to 3/9/2020



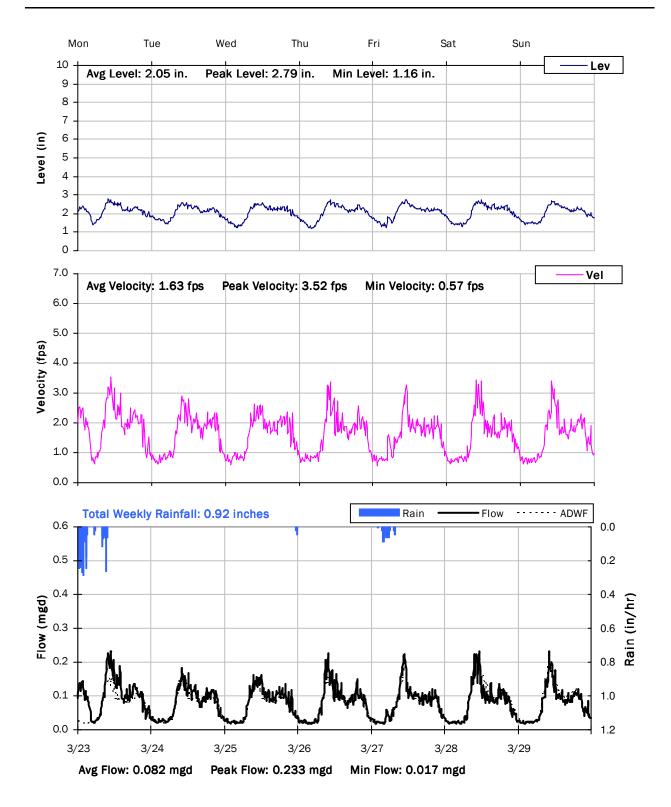
FM-01 Weekly Level, Velocity and Flow Hydrographs 3/9/2020 to 3/16/2020



FM-01 Weekly Level, Velocity and Flow Hydrographs 3/16/2020 to 3/23/2020

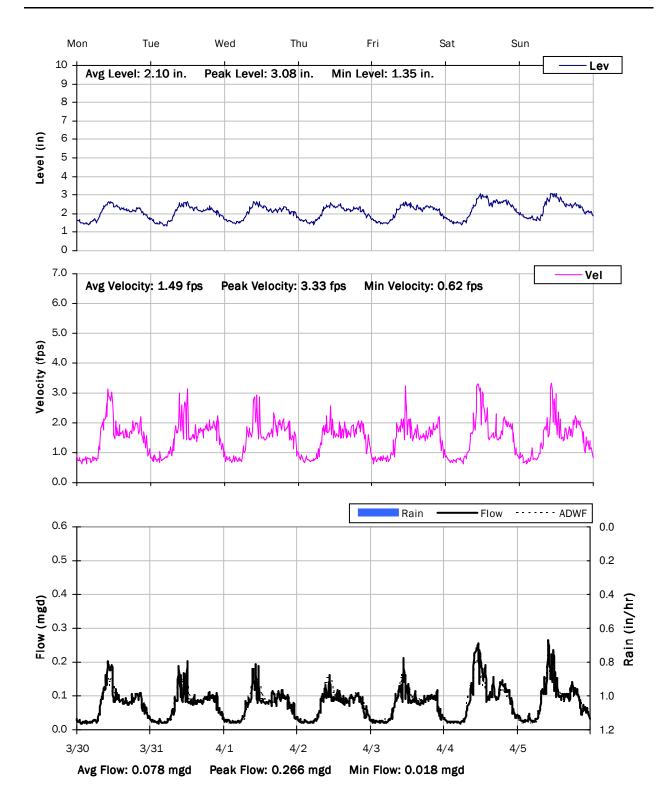


FM-01 Weekly Level, Velocity and Flow Hydrographs 3/23/2020 to 3/30/2020



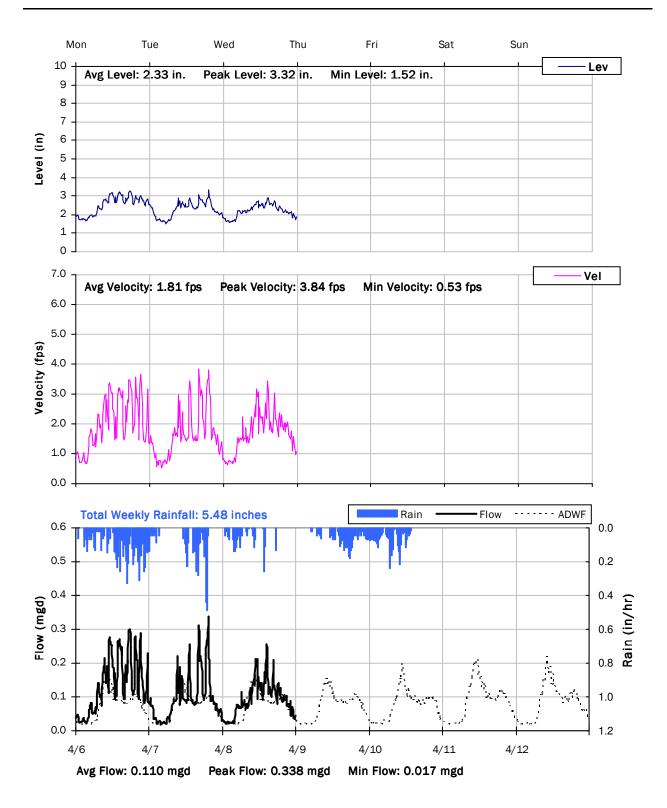
Item 4.

FM-01 Weekly Level, Velocity and Flow Hydrographs 3/30/2020 to 4/6/2020



Item 4.

FM-01 Weekly Level, Velocity and Flow Hydrographs 4/6/2020 to 4/13/2020



Item 4.

City of Beaumont

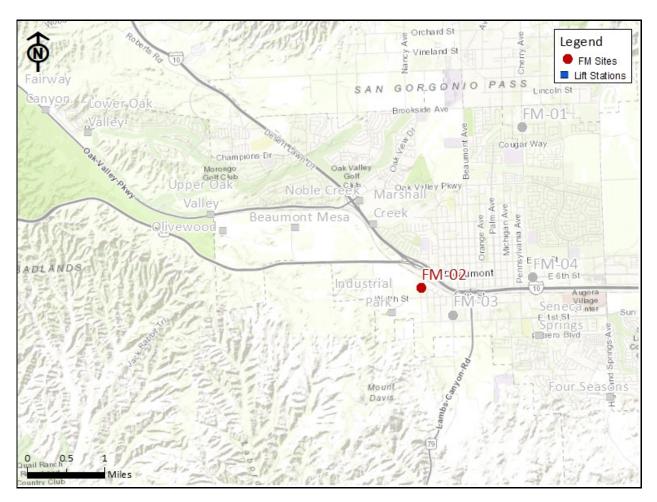
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-02

City Structure: SSMH01725

Location: Veile Avenue north of West 4th Street

Data Summary Report



Vicinity Map: FM-02

FM-02

Site Information

Peak Measured Flow:

ue north of West 4th
25
°W,33.9281°N
d

1.967 mgd



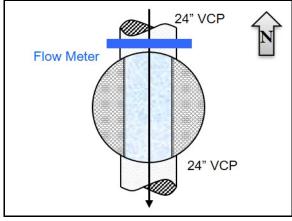
FM-02

Sanitary Map



Street View

Satellite Map



Flow Sketch



Plan View

FM-02

Additional Site Photos



Monitored Influent Pipe

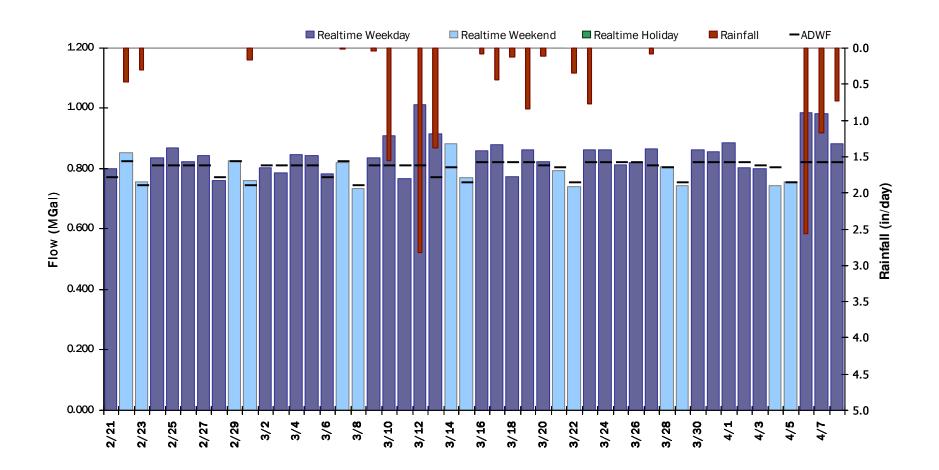


| FM-02 - 3

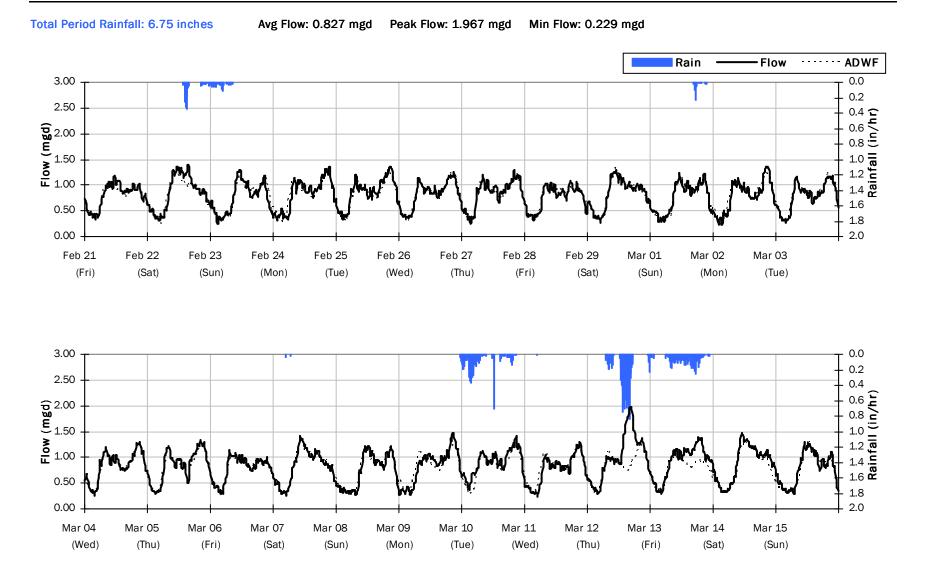
FM-02 Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.832 MGal Peak Daily Flow: 1.013 MGal Min Daily Flow: 0.735 MGal

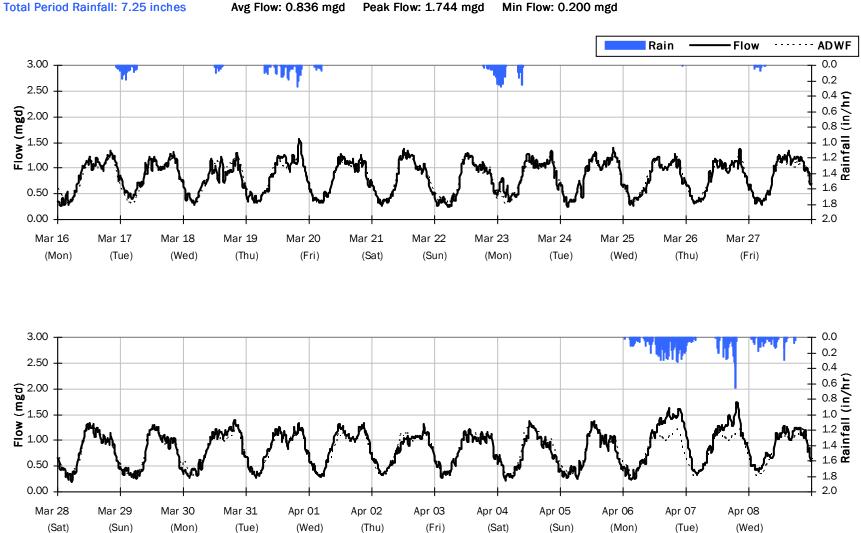
Total Period Rainfall: 14.00 inches



FM-02 Flow Summary: 2/21/2020 to 3/15/2020

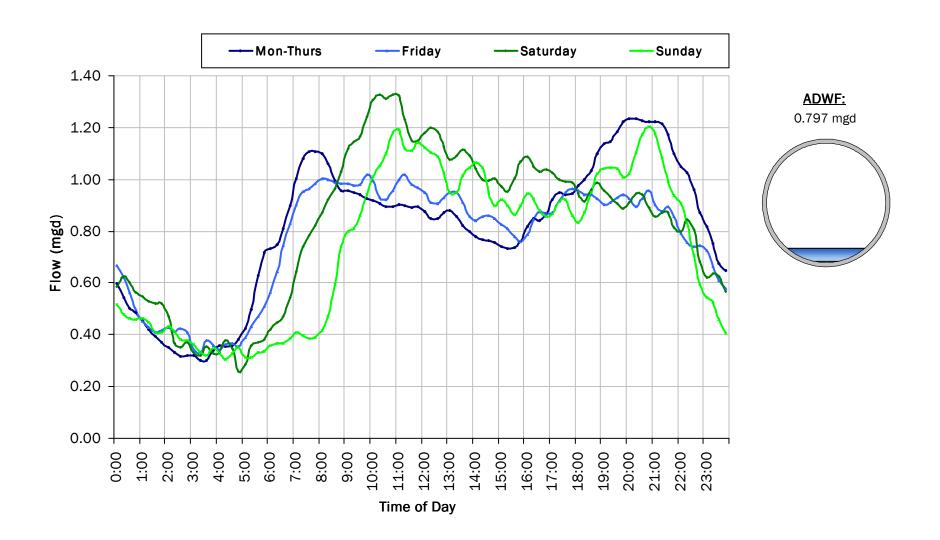


FM-02 Flow Summary: 3/16/2020 to 4/8/2020

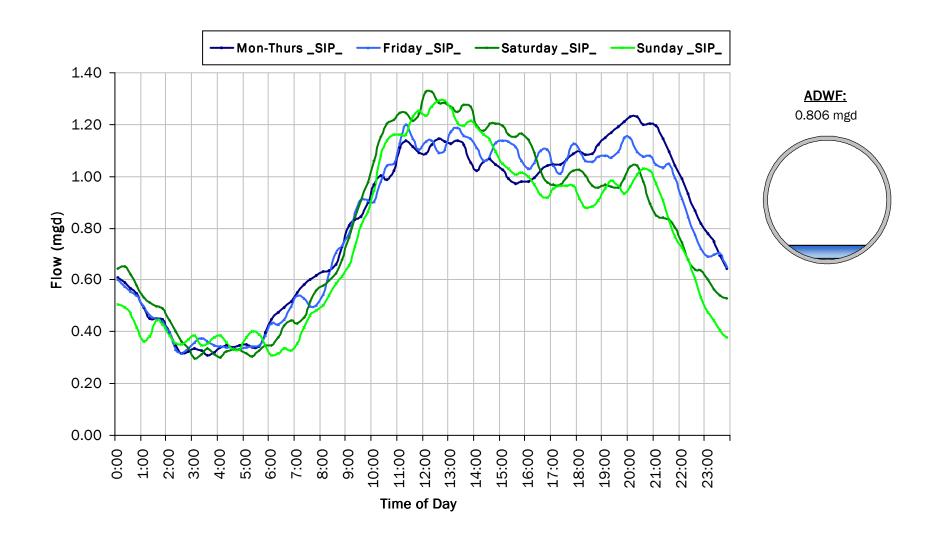


Avg Flow: 0.836 mgd Peak Flow: 1.744 mgd Min Flow: 0.200 mgd

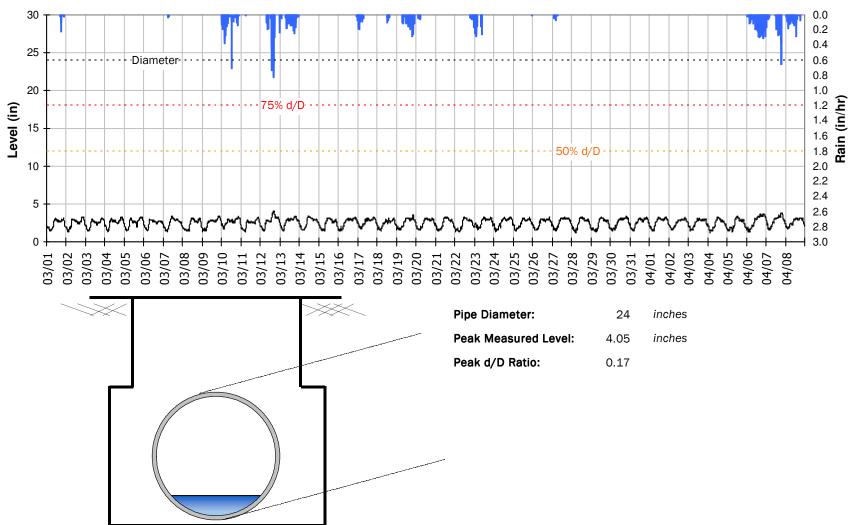
FM-02 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



FM-02 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)

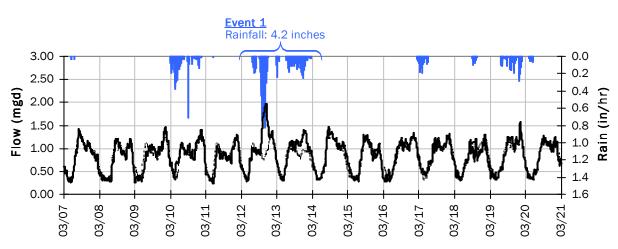


FM-02 Site Capacity and Surcharge Summary

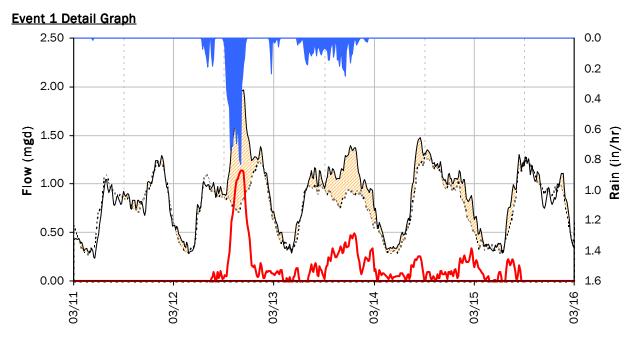


Realtime Flow Levels with Rainfall Data over Monitoring Period

FM-02 I/I Summary: Event 1



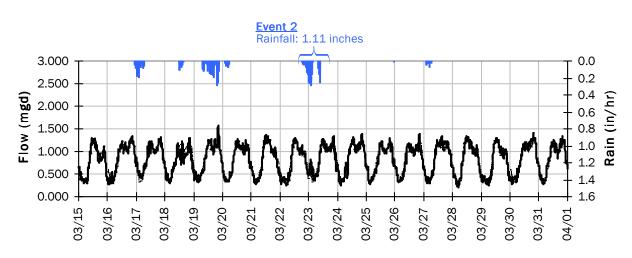
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 4.20 inches)

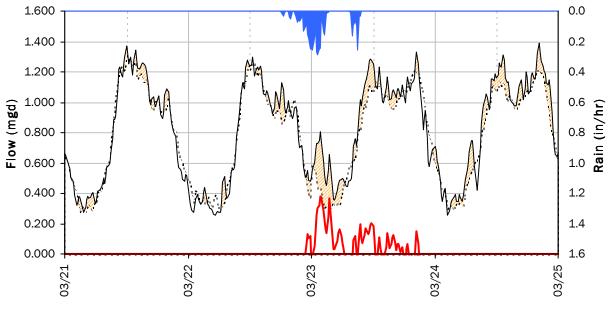
Capacity		Inflow / Infiltration	
Peak Flow: PF:	1.97 mgd 2.45	Peak I/I Rate: Total I/I:	1.14 mgd 518,000 gallons
Peak Level: d/D Ratio:	4.05 in 0.17		

FM-02 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

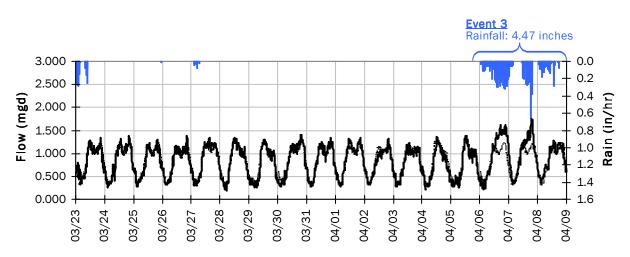




Storm Event I/I Analysis (Rain = 1.11 inches)

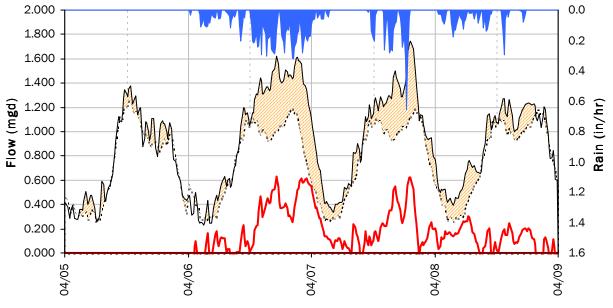
Capacity		Inflow / Infiltration	
Peak Flow: PF:	1.33 mgd 1.66	Peak I/I Rate: Total I/I:	0.38 mgd 77,000 gallons
Peak Level: d/D Ratio:	3.30 in 0.14		

FM-02 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

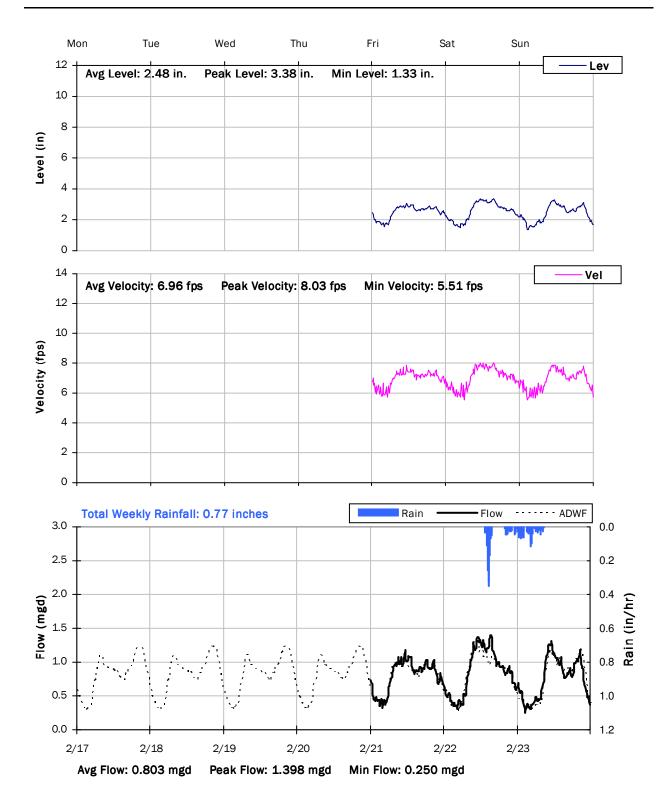




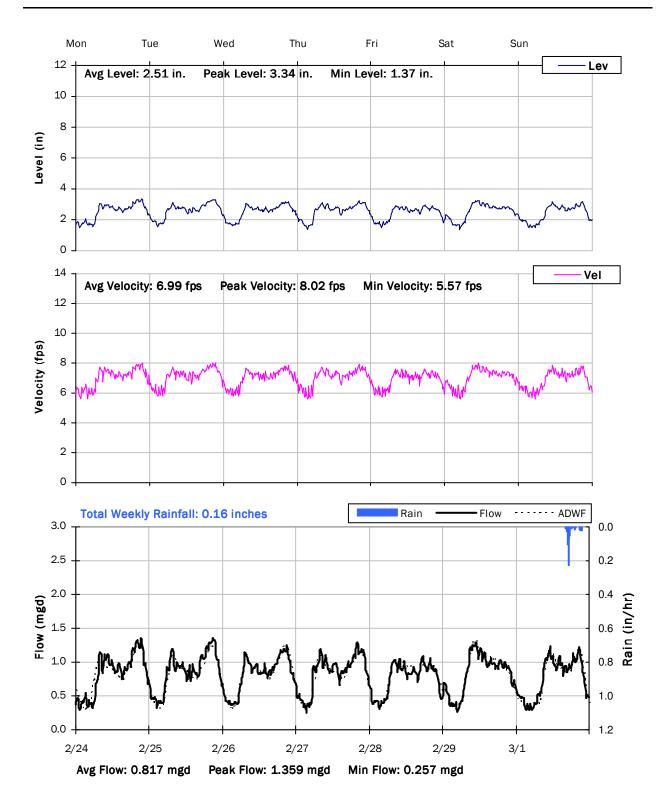
Storm Event I/I Analysis (Rain = 4.47 inches)

Capacity		Inflow / Infiltration		
Peak Flow: PF:	1.74 mgd 2.18	Peak I/I Rate: Total I/I:	0.63 542,000	0
Peak Level: d/D Ratio:	3.80 in 0.16			

FM-02 Weekly Level, Velocity and Flow Hydrographs 2/17/2020 to 2/24/2020

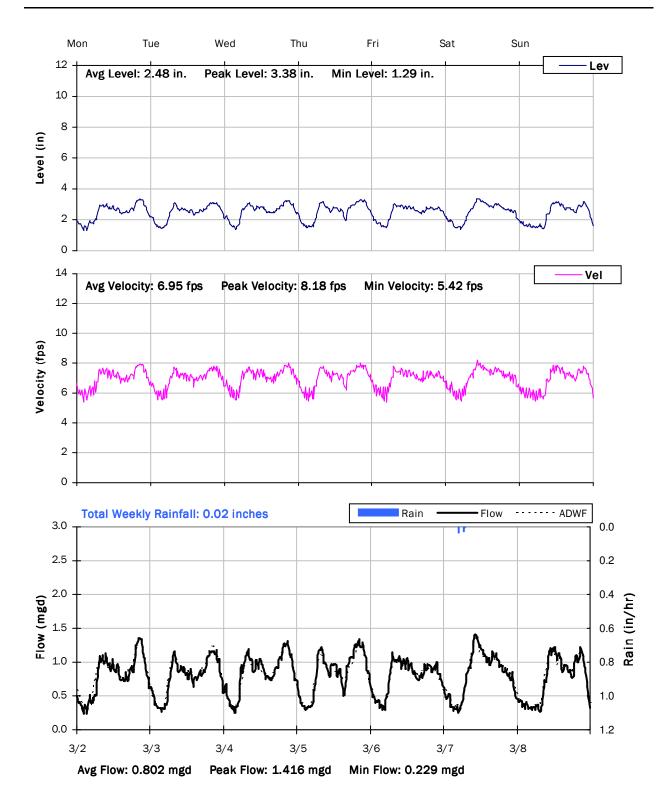


FM-02 Weekly Level, Velocity and Flow Hydrographs 2/24/2020 to 3/2/2020



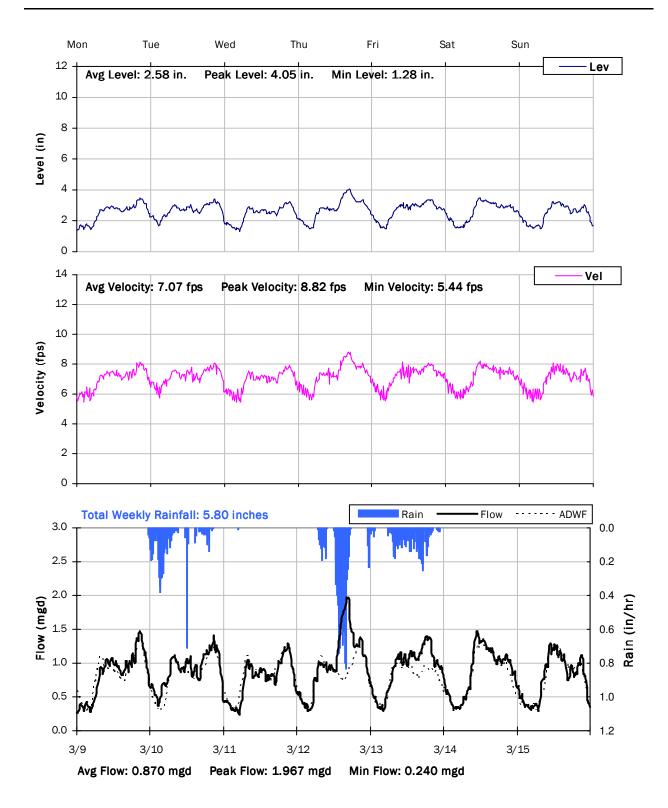
Item 4.

FM-02 Weekly Level, Velocity and Flow Hydrographs 3/2/2020 to 3/9/2020

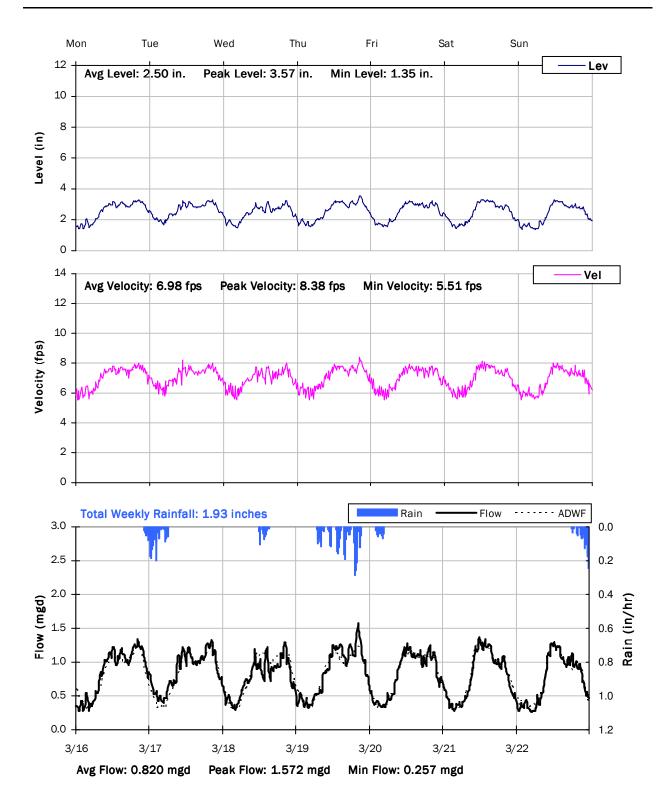


Item 4.

FM-02 Weekly Level, Velocity and Flow Hydrographs 3/9/2020 to 3/16/2020

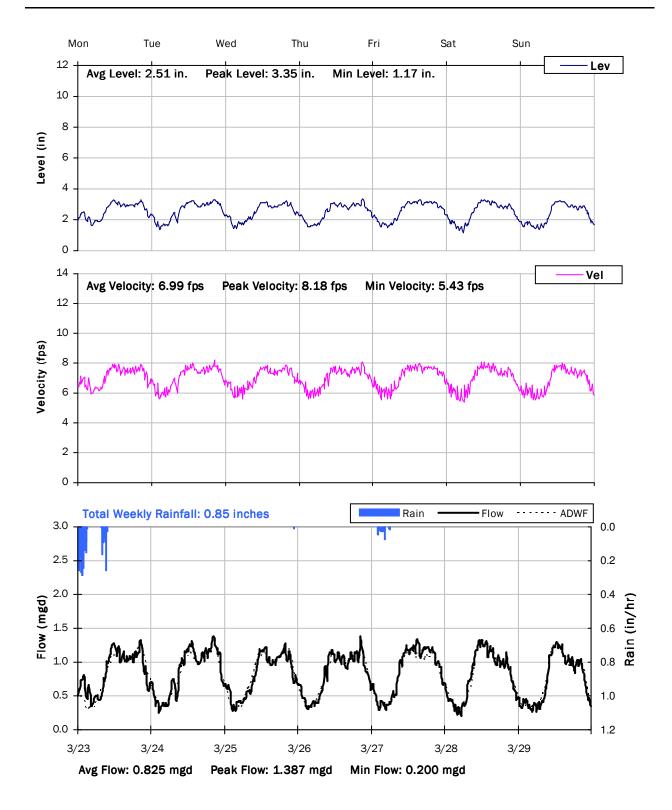


FM-02 Weekly Level, Velocity and Flow Hydrographs 3/16/2020 to 3/23/2020

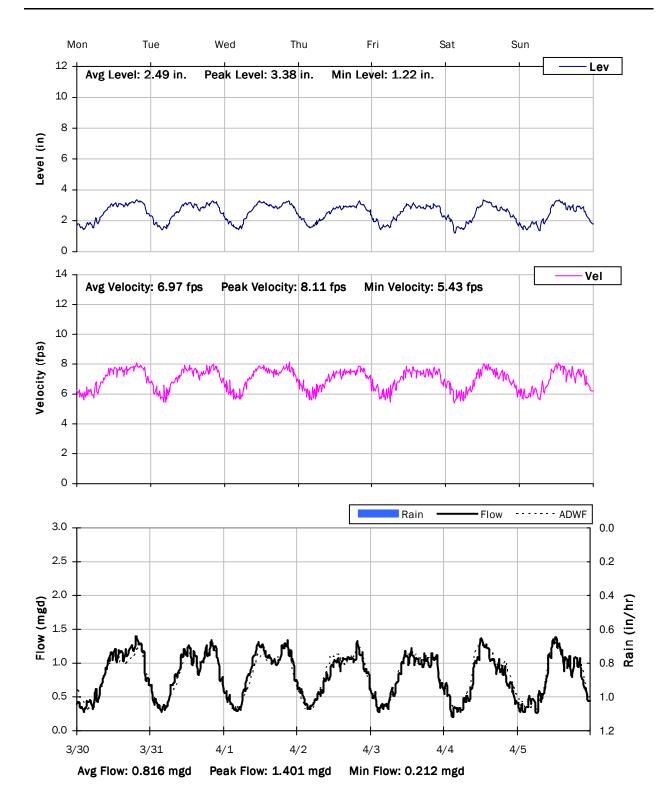


FM-02

Weekly Level, Velocity and Flow Hydrographs 3/23/2020 to 3/30/2020

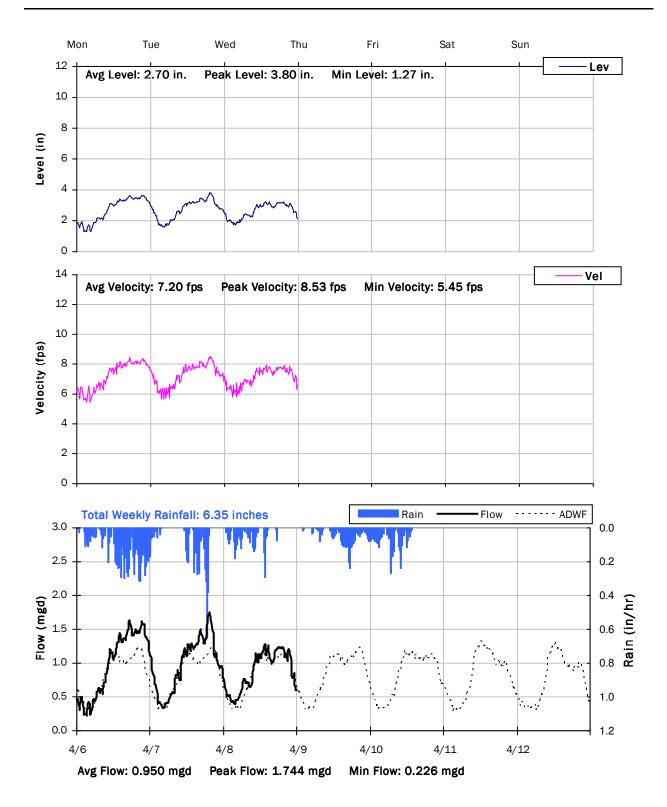


FM-02 Weekly Level, Velocity and Flow Hydrographs 3/30/2020 to 4/6/2020



Item 4.

FM-02 Weekly Level, Velocity and Flow Hydrographs 4/6/2020 to 4/13/2020



City of Beaumont

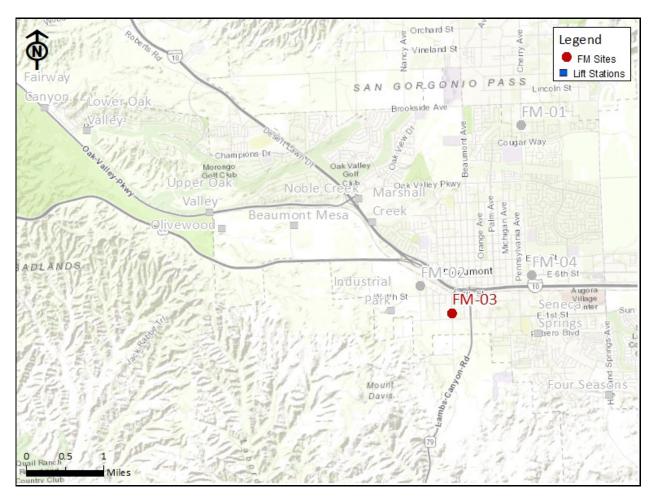
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-03

City Structure: SSMH00381

Location: California Avenue north of East 1st Street

Data Summary Report



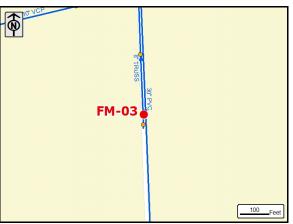
Vicinity Map: FM-03

FM-03

Site Information

Location:	California Avenue north of East 1st Street
City Manhole:	SSMH00381
Coordinates:	116.9813° W, 33.9228° N
Rim Elevation (Earth):	2576 feet
Pipe Diameter:	31 inches
ADWF:	1.074 mgd
Peak Measured Flow:	3.207 mgd



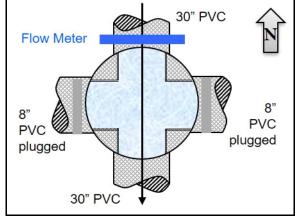






Street View

Satellite Map



Flow Sketch

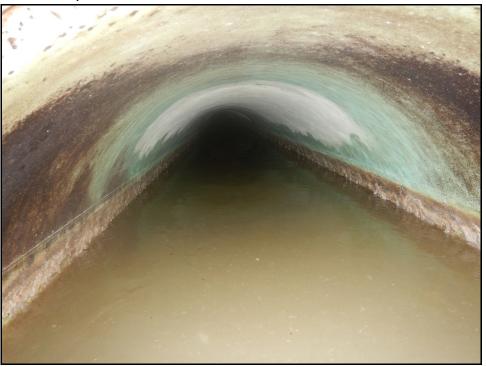


Plan View

FM-03

Additional Site Photos

Effluent Pipe



Monitored Influent Pipe



ltem 4.

Additional Site Photos

Lateral Pipe

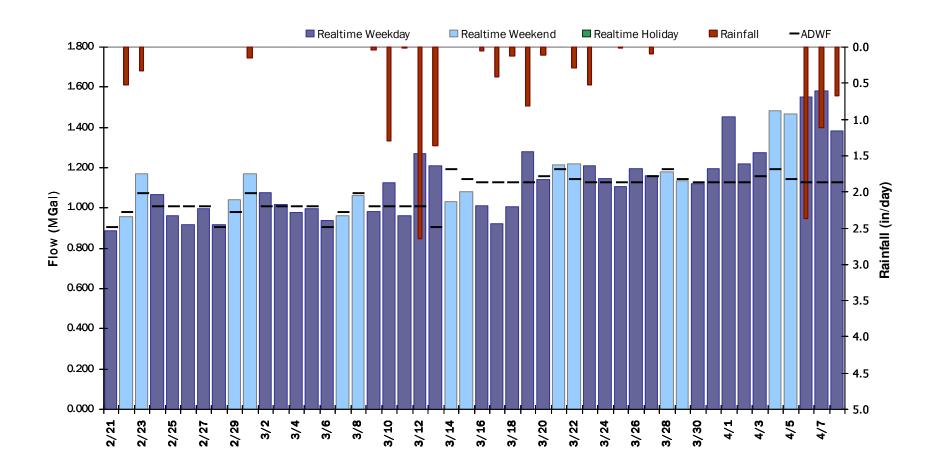


X&**V**

FM-03 Period Flow Summary: Daily Flow Totals

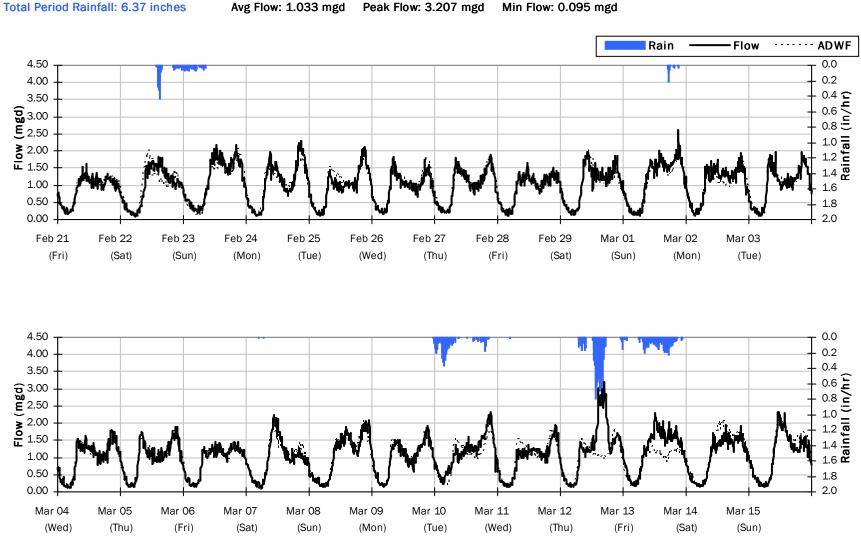
Avg Period Flow: 1.134 MGal Peak Daily Flow: 1.582 MGal Min Daily Flow: 0.888 MGal

Total Period Rainfall: 12.96 inches



V&A | FM-03 - 5 343

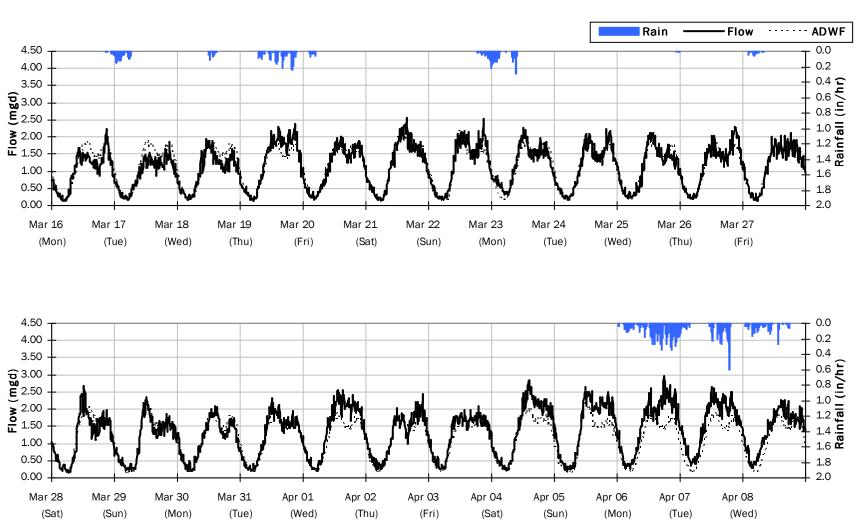
FM-03 Flow Summary: 2/21/2020 to 3/15/2020



Avg Flow: 1.033 mgd Peak Flow: 3.207 mgd Min Flow: 0.095 mgd

> | FM-03 - 6 344

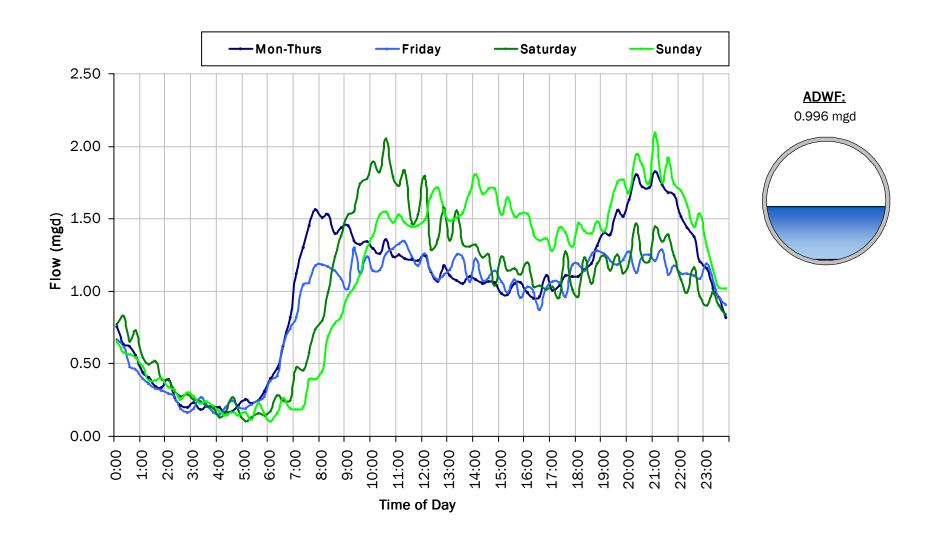
FM-03 Flow Summary: 3/16/2020 to 4/8/2020



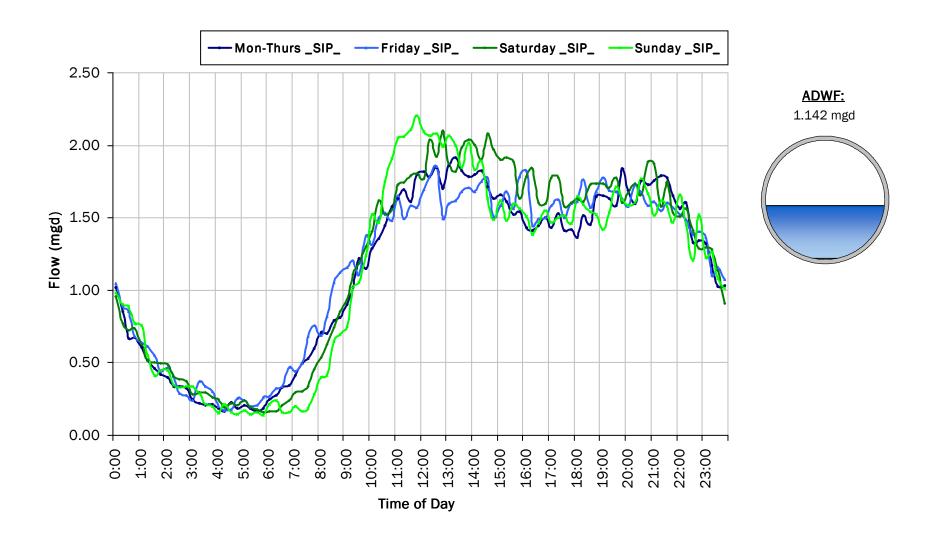
Total Period Rainfall: 6.59 inches Avg Flow: 1.236 mgd Peak Flow: 2.973 mgd Min Flow: 0.141 mgd

V&A | FM-03 - 7 345

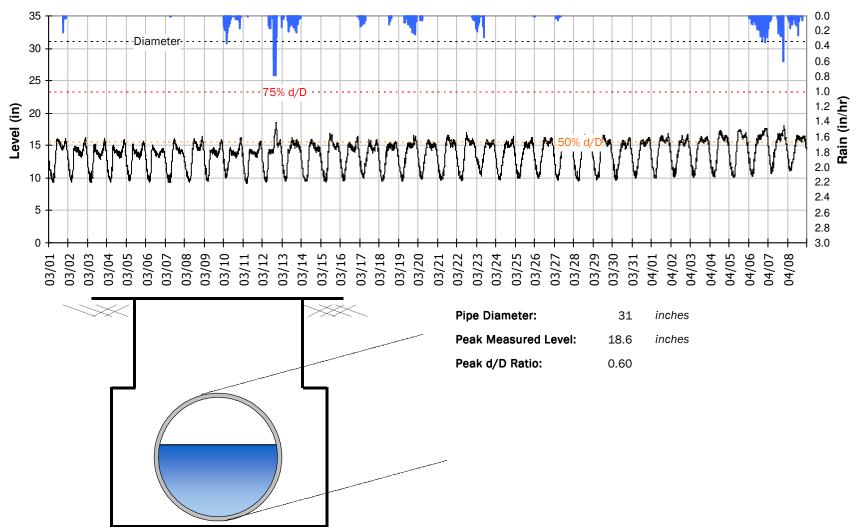
FM-03 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



FM-03 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)

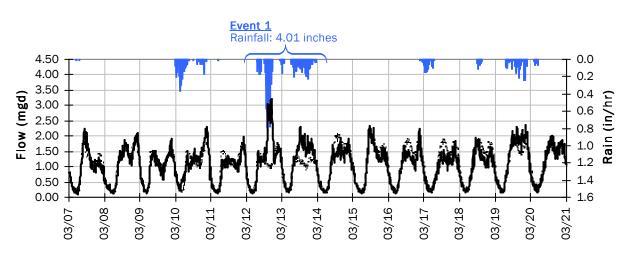


FM-03 Site Capacity and Surcharge Summary

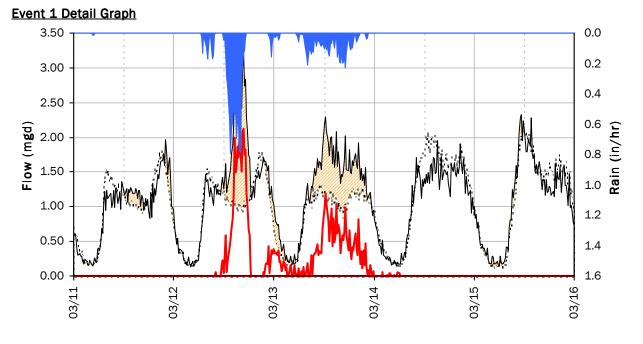


Realtime Flow Levels with Rainfall Data over Monitoring Period

FM-03 I/I Summary: Event 1



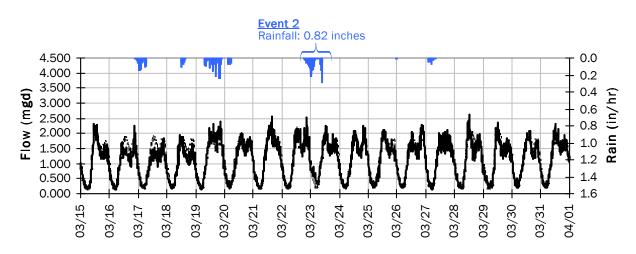
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 4.01 inches)

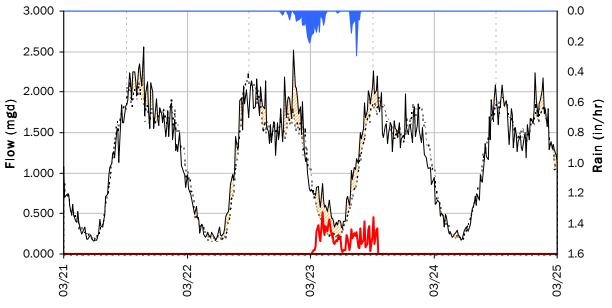
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow:	3.21 mgd	Peak I/I Rate:	2.13 mgd
PF:	2.99	Total I/I:	646,000 gallons
Peak Level:	18.56 in		
d/D Ratio:	0.60		

FM-03 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

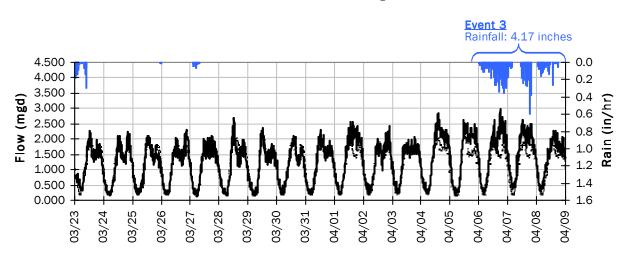




Storm Event I/I Analysis (Rain = 0.82 inches)

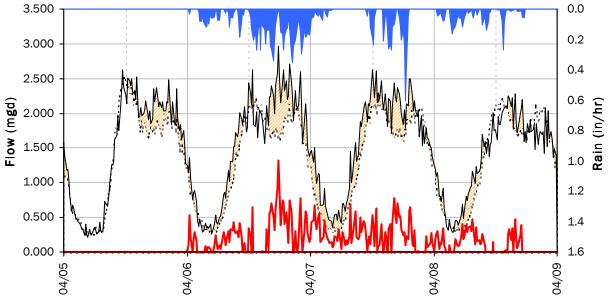
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	2.26 mgd 2.11	Peak I/I Rate: Total I/I:	0.52 mgd 112,000 gallons
Peak Level: d/D Ratio:	16.04 in 0.52		

FM-03 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period







1.31 mgd

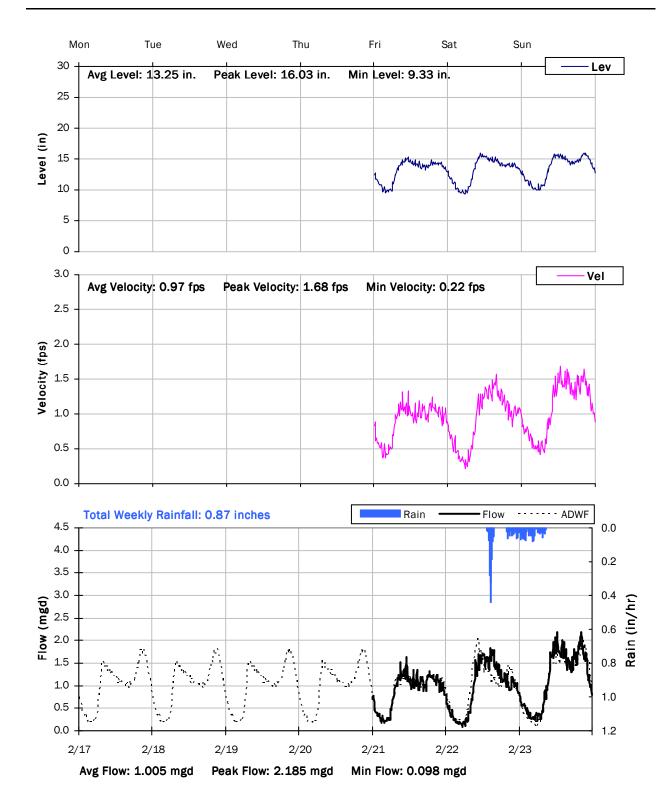
519,000 gallons

Inflow / Infiltration Peak I/I Rate:

Total I/I:

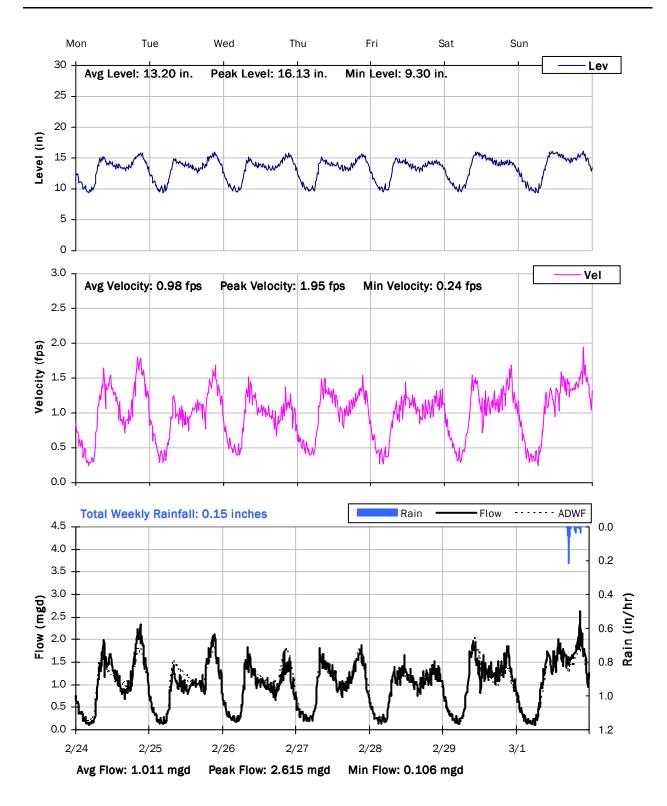
Capacity	
Peak Flow:	2.97 mgd
PF:	2.77
Peak Level:	18.06 in
d/D Ratio:	0.58

FM-03 Weekly Level, Velocity and Flow Hydrographs 2/17/2020 to 2/24/2020



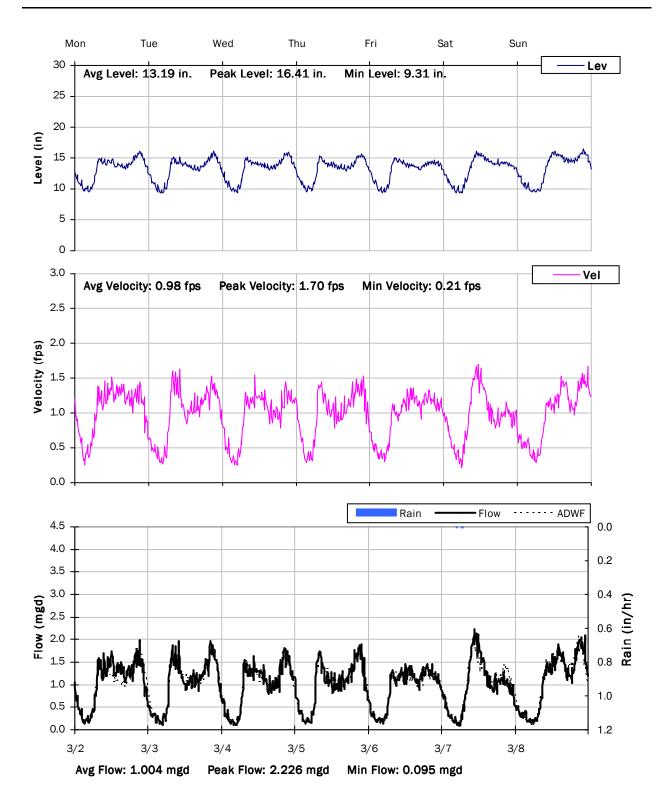
FM-03

Weekly Level, Velocity and Flow Hydrographs 2/24/2020 to 3/2/2020

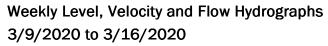


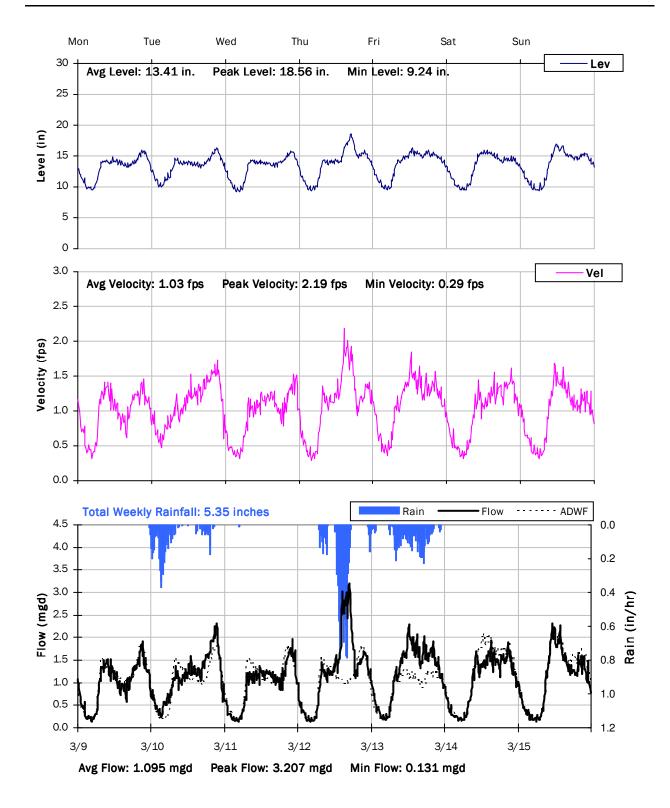
FM-03

Weekly Level, Velocity and Flow Hydrographs 3/2/2020 to 3/9/2020



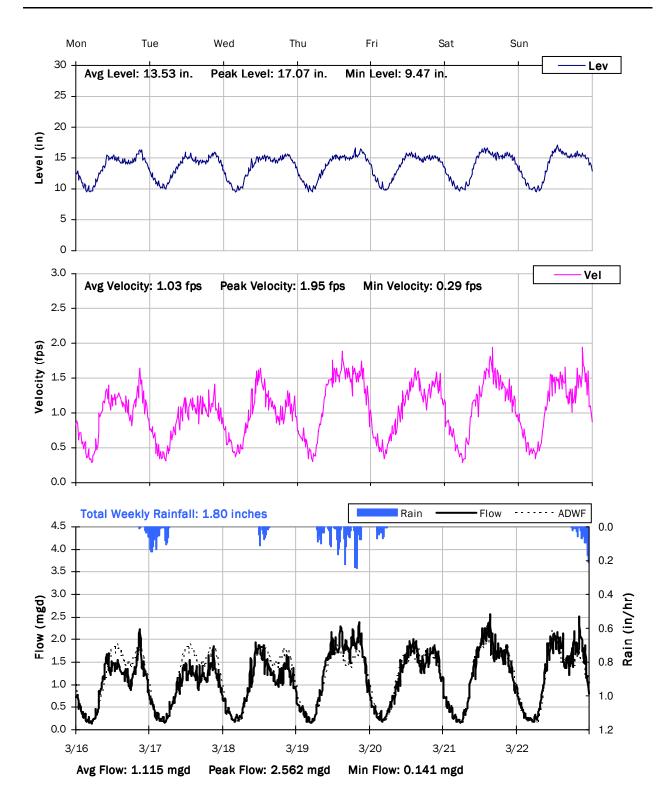
FM-03





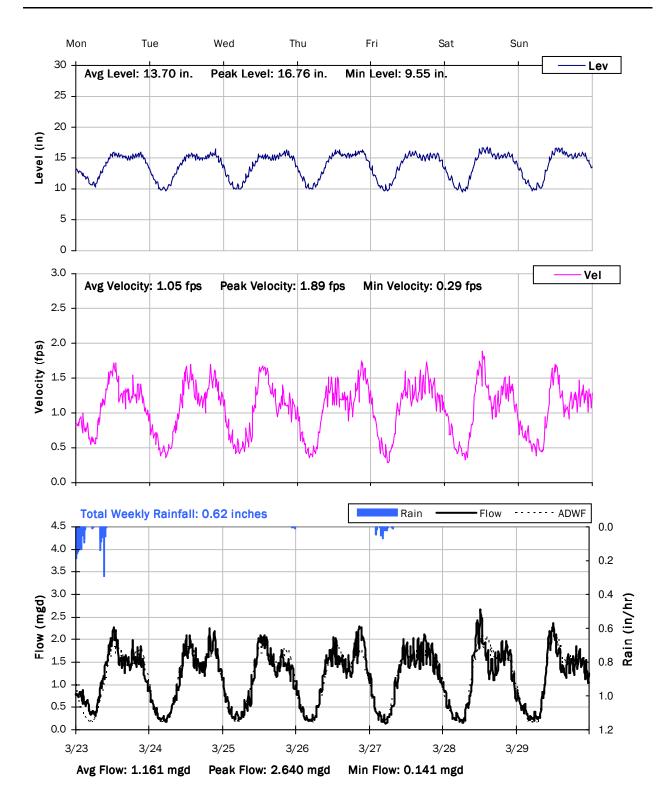
FM-03

Weekly Level, Velocity and Flow Hydrographs 3/16/2020 to 3/23/2020



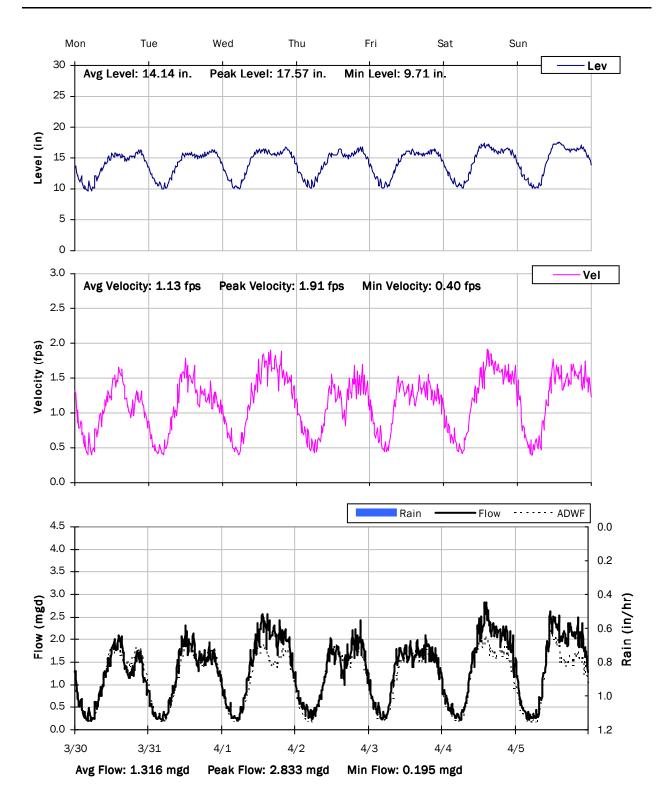
FM-03

Weekly Level, Velocity and Flow Hydrographs 3/23/2020 to 3/30/2020



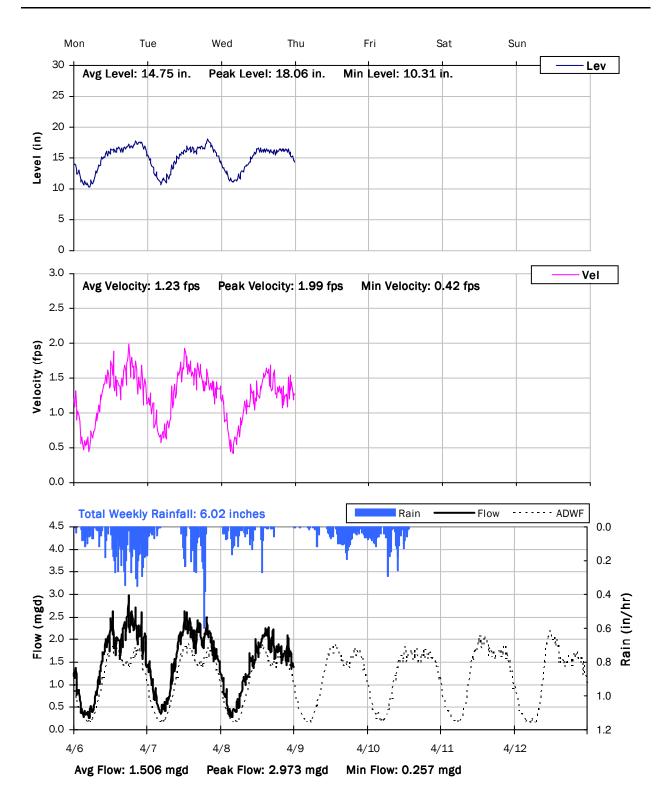
FM-03

Weekly Level, Velocity and Flow Hydrographs 3/30/2020 to 4/6/2020



FM-03

Weekly Level, Velocity and Flow Hydrographs 4/6/2020 to 4/13/2020



Item 4.

V&A | FM-03-21

City of Beaumont

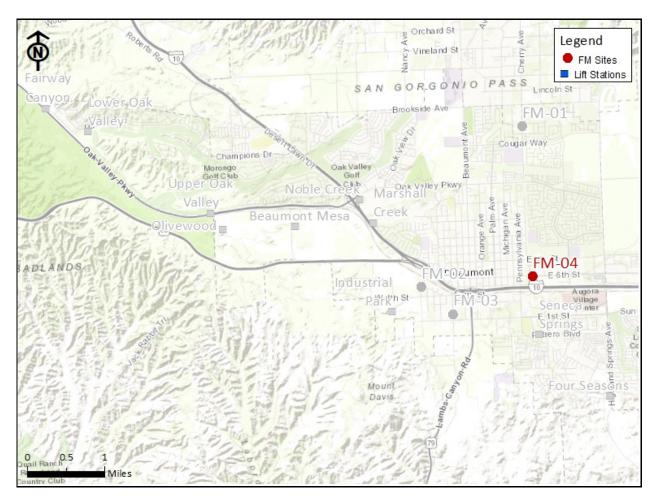
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-04

City Structure: SSMH00450

Location: East 6th Street east of Illinois Avenue

Data Summary Report



Vicinity Map: FM-04

Site Information

Location:	East 6th Street east of Illinois Avenue
City Manhole:	SSMH00450
Coordinates:	116.9631° W, 33.9293° N
Rim Elevation (Earth):	2612 feet
Pipe Diameter:	21 inches
ADWF:	0.570 mgd
Peak Measured Flow:	1.572 mgd



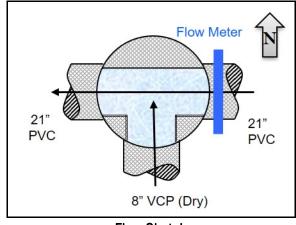
TO Feet

Sanitary Map



Street View

Satellite Map



Flow Sketch



Plan View

361

Additional Site Photos



Monitored Influent Pipe



A&**V**

| FM-04 - 3

Additional Site Photos

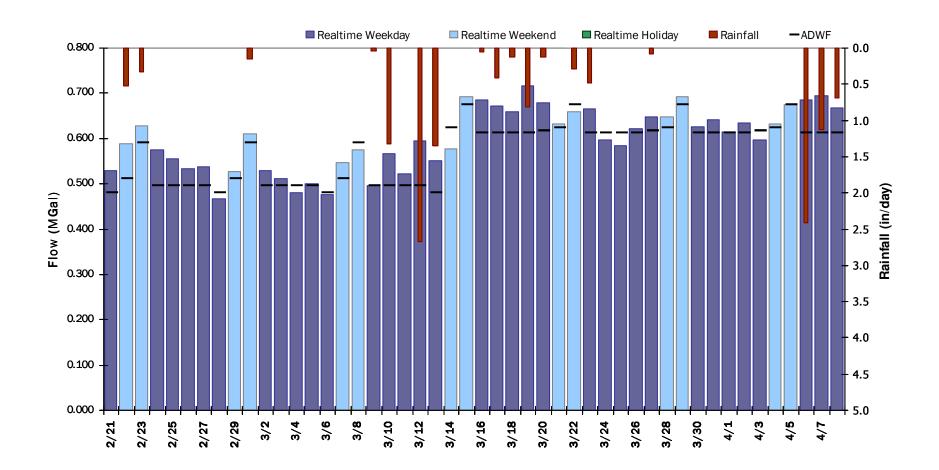
Lateral Pipe



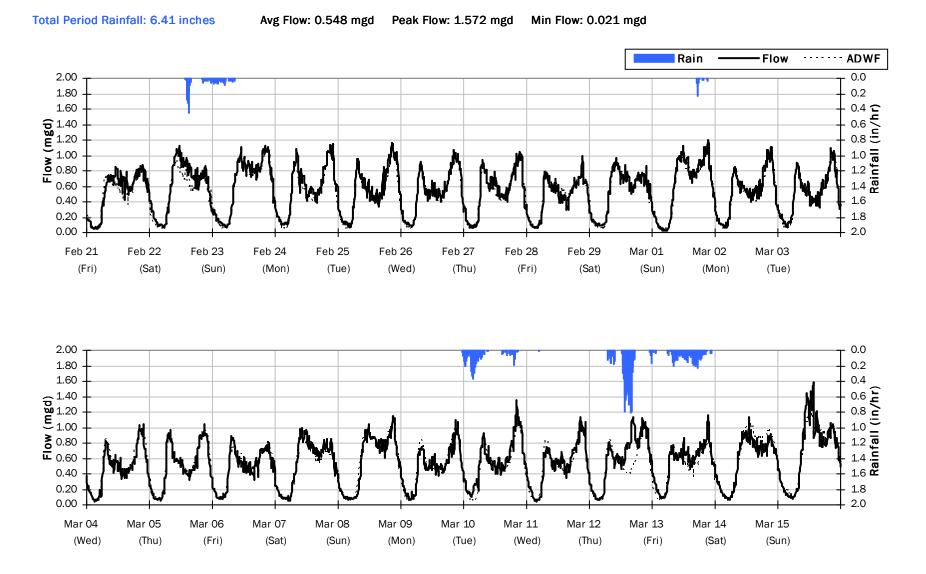
FM-04 Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.600 MGal Peak Daily Flow: 0.715 MGal Min Daily Flow: 0.466 MGal

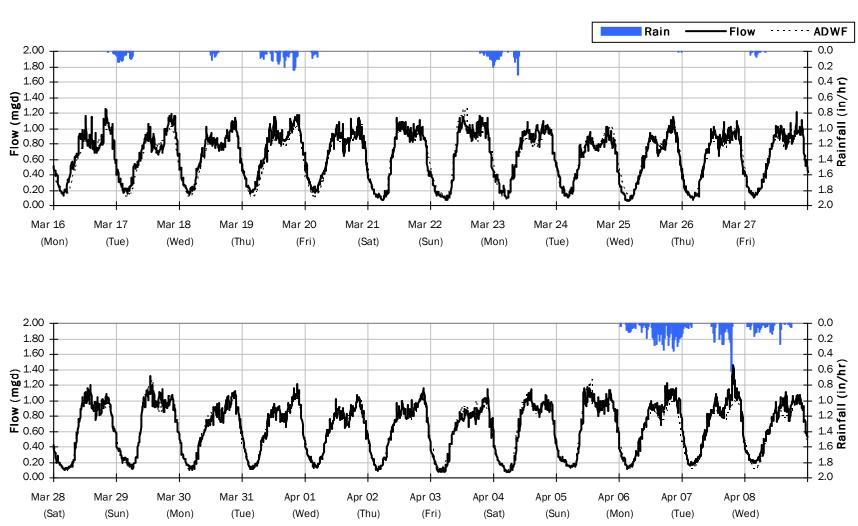
Total Period Rainfall: 13.02 inches



Flow Summary: 2/21/2020 to 3/15/2020

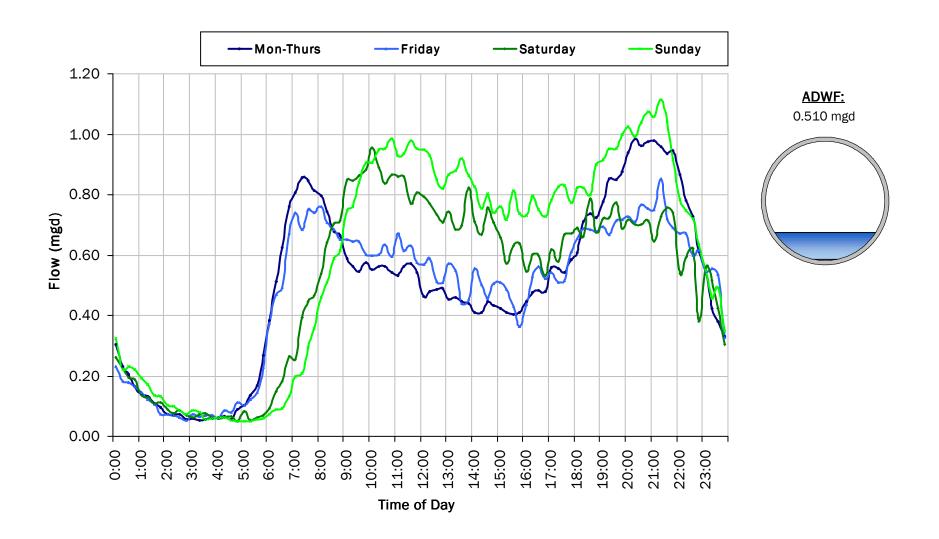


FM-04 Flow Summary: 3/16/2020 to 4/8/2020

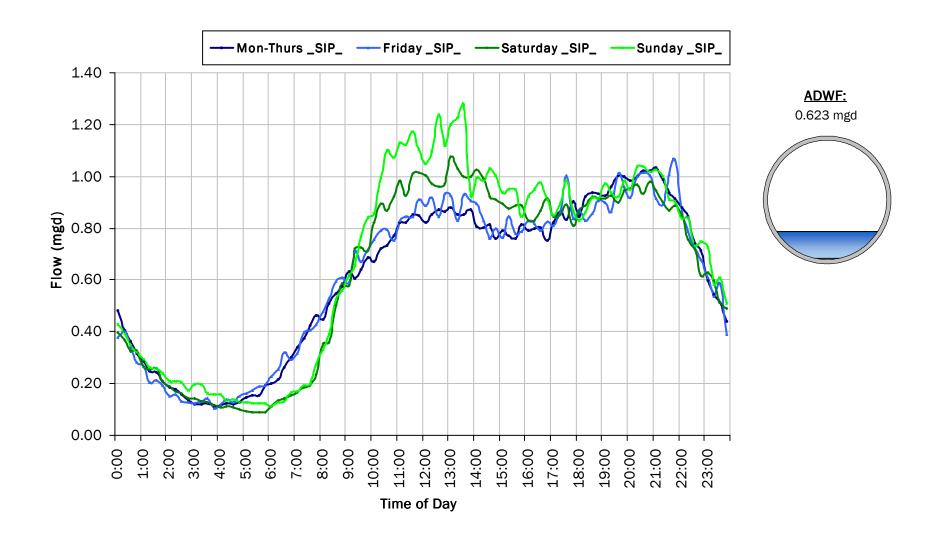


Total Period Rainfall: 6.61 inches Avg Flow: 0.651 mgd Peak Flow: 1.452 mgd Min Flow: 0.061 mgd

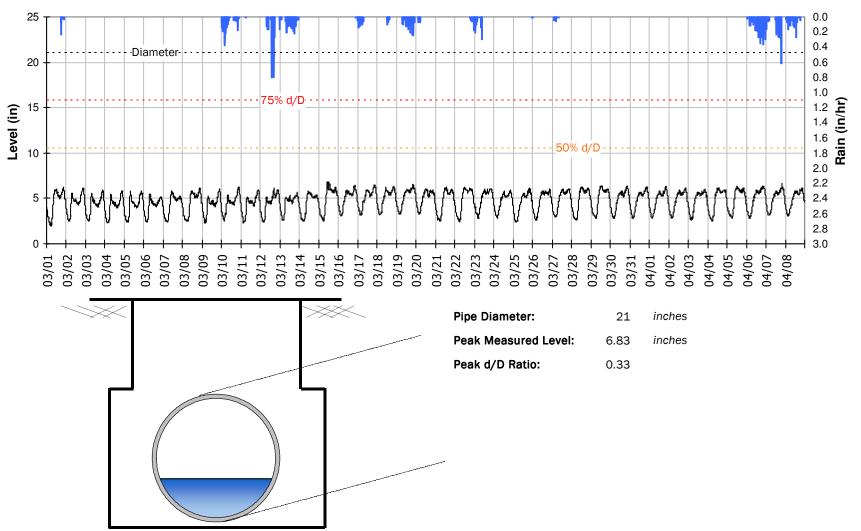
FM-04 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



FM-04 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



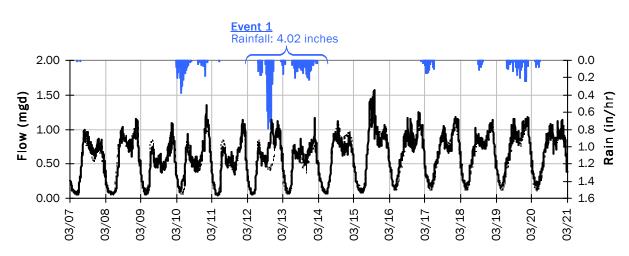
FM-04 Site Capacity and Surcharge Summary



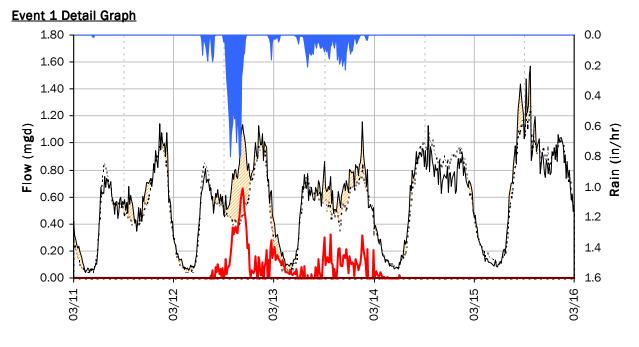
Realtime Flow Levels with Rainfall Data over Monitoring Period

369 | FM-04 - 10

FM-04 I/I Summary: Event 1



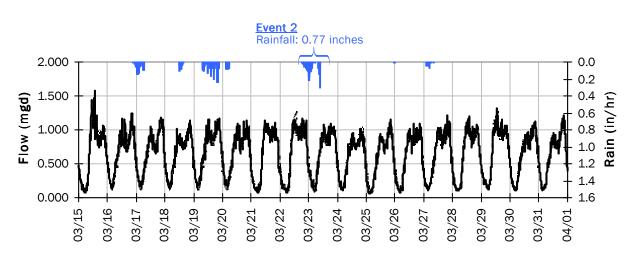
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 4.02 inches)

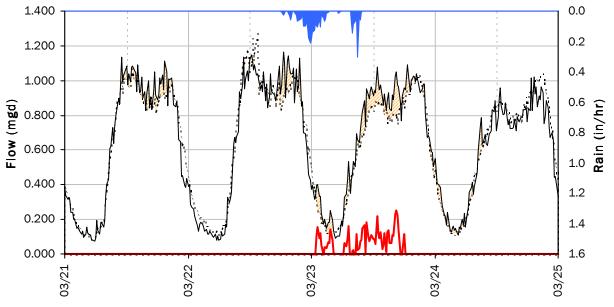
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	1.16 <i>mgd</i> 2.03	Peak I/I Rate: Total I/I:	0.67 mgd 190,000 gallons
Peak Level: d/D Ratio:	6.10 in 0.29		

FM-04 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

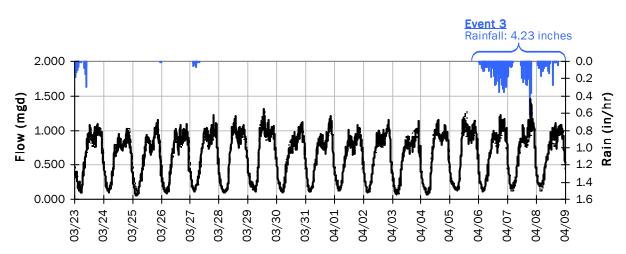




Storm Event I/I Analysis (Rain = 0.77 inches)

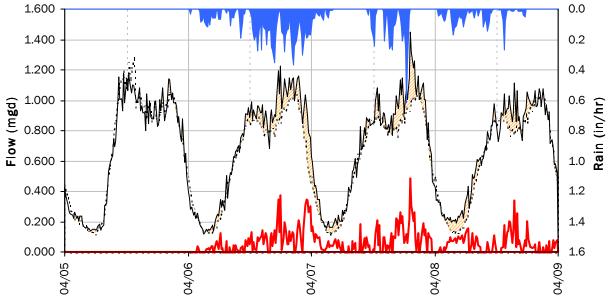
Capacity		Inflow / Infiltration	
Peak Flow:	1.08 mgd	Peak I/I Rate:	0.25 mgd
PF:	1.90	Total I/I:	49,000 gallons
Peak Level: d/D Ratio:	6.02 in 0.29		

FM-04 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period



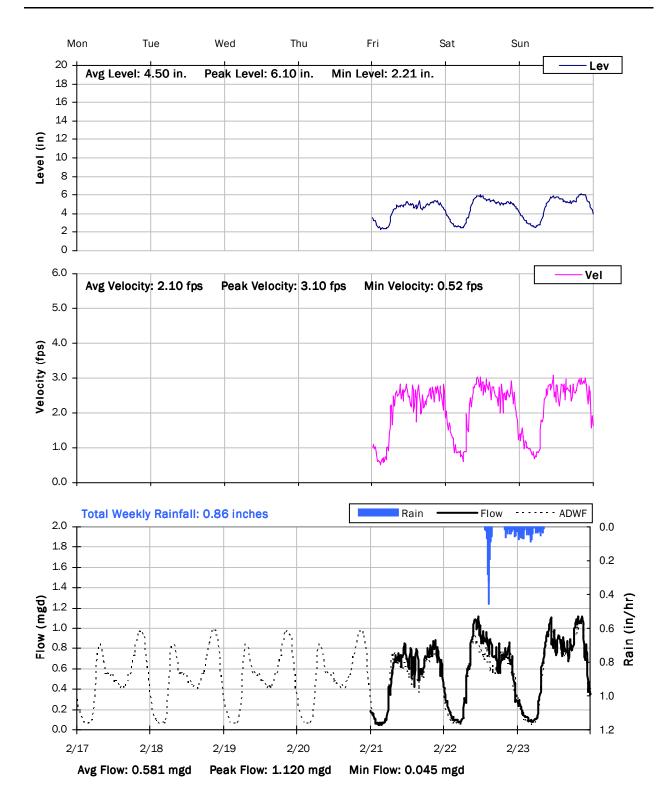


Storm Event I/I Analysis (Rain = 4.23 inches)

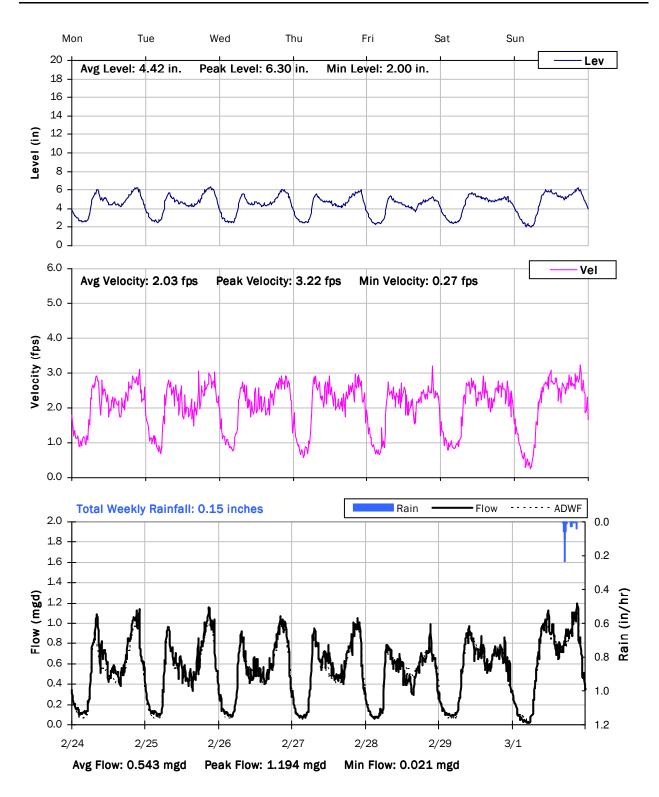
<u>Capacity</u>		Inflow / Infiltration		
Peak Flow: PF:	1.45 <i>mgd</i> 2.55	Peak I/I Rate: Total I/I:	0.48 mgd 185,000 gallons	
Peak Level: d/D Ratio:	6.73 in 0.32			

FM-04

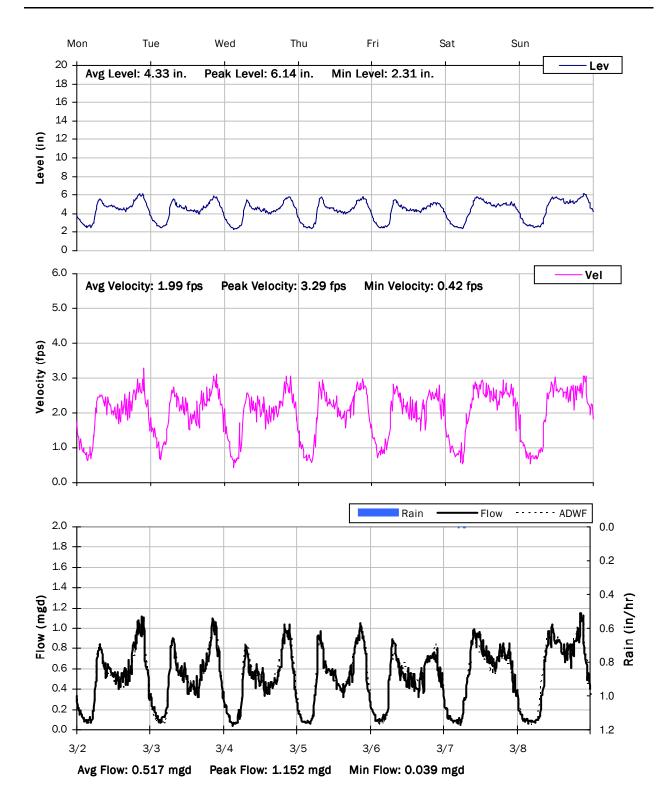
Weekly Level, Velocity and Flow Hydrographs 2/17/2020 to 2/24/2020



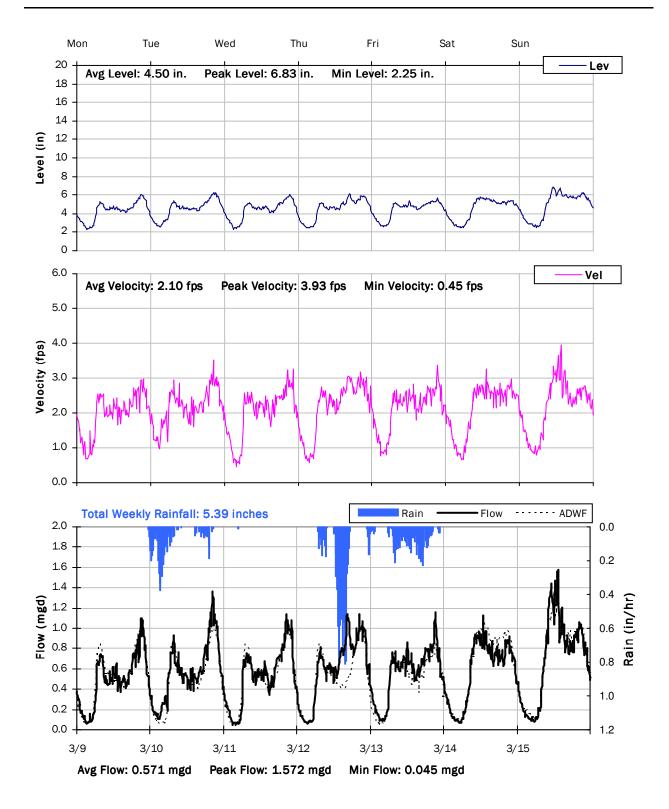
Weekly Level, Velocity and Flow Hydrographs 2/24/2020 to 3/2/2020



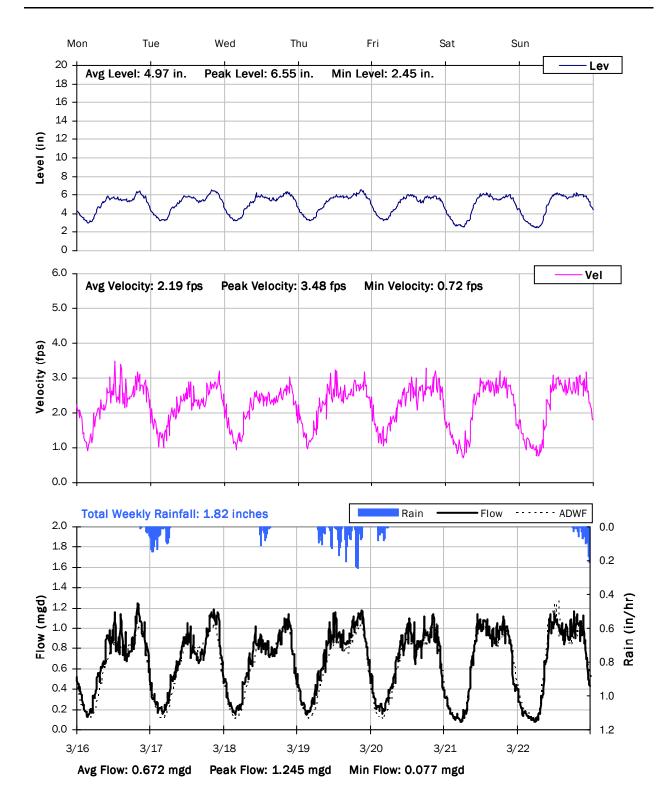
Weekly Level, Velocity and Flow Hydrographs 3/2/2020 to 3/9/2020



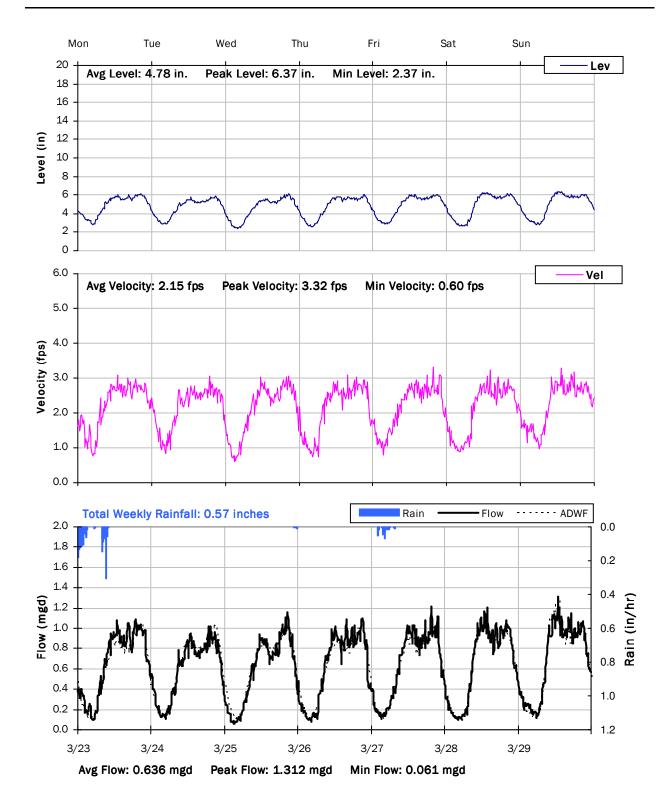
Weekly Level, Velocity and Flow Hydrographs 3/9/2020 to 3/16/2020



Weekly Level, Velocity and Flow Hydrographs 3/16/2020 to 3/23/2020

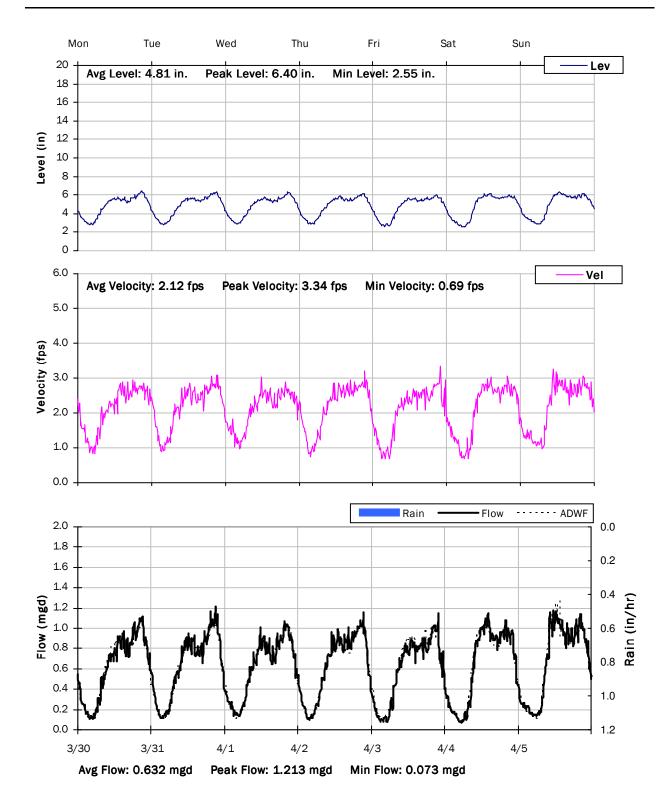


Weekly Level, Velocity and Flow Hydrographs 3/23/2020 to 3/30/2020

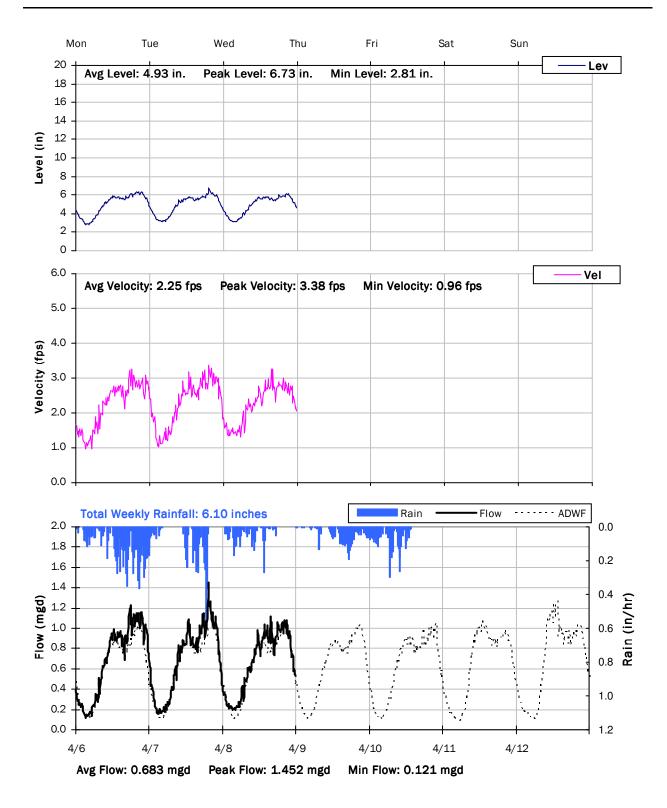


Item 4.

Weekly Level, Velocity and Flow Hydrographs 3/30/2020 to 4/6/2020



Weekly Level, Velocity and Flow Hydrographs 4/6/2020 to 4/13/2020



City of Beaumont

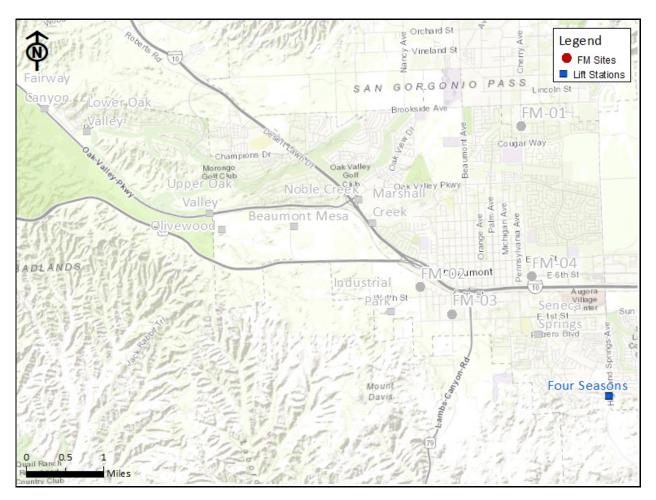
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-05

City Structure: Four Seasons LS

Location: Highland Springs, 320 feet south of Breckenridge Ave

Data Summary Report



Vicinity Map: FM-05

FM-05

Site Information

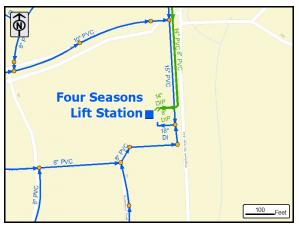
City Structure: Four Seasons LS Coordinates: 116.9468° W, 33.9064° N Rim Elev: 2480 feet

Location: Highland Springs, 320 feet south of Breckenridge Ave

ADWF: 0.235 mgd Peak Measured Flow: 0.615 mgd



Satellite Map



Sanitary Map

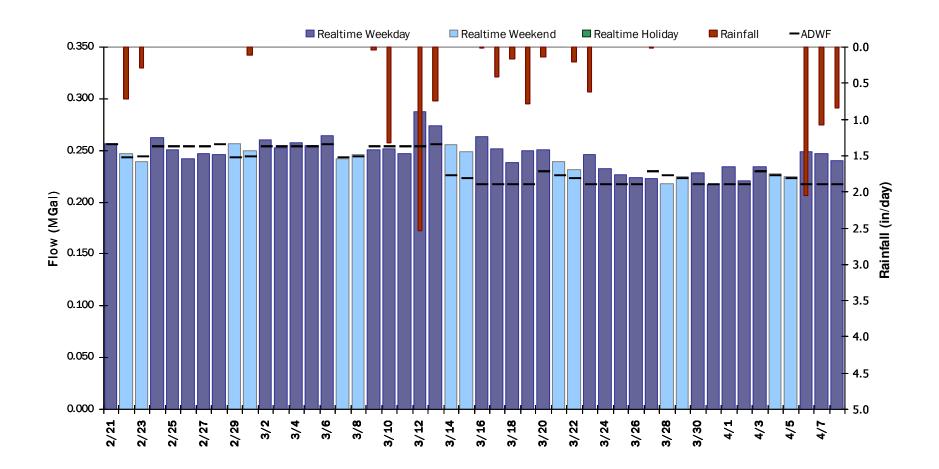


Street View

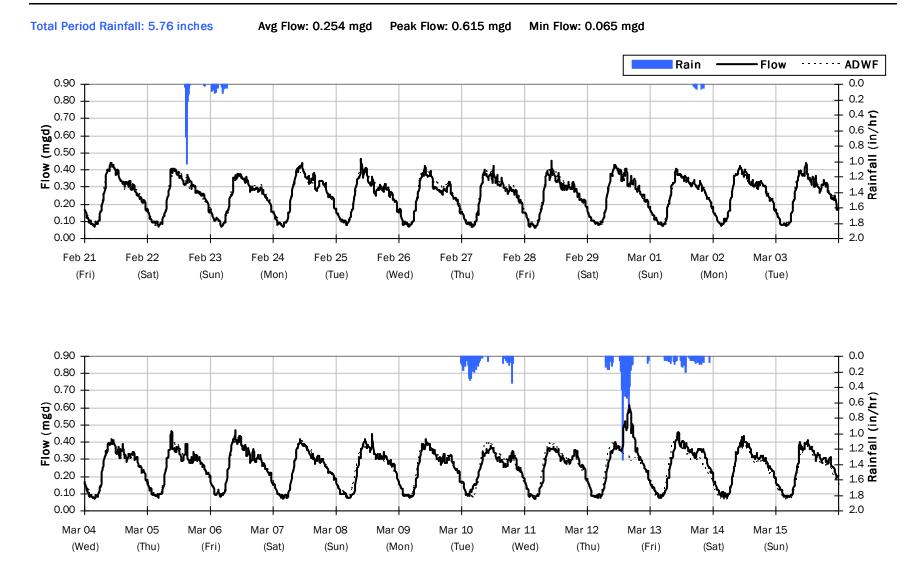
FM-05 Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.244 MGal Peak Daily Flow: 0.287 MGal Min Daily Flow: 0.217 MGal

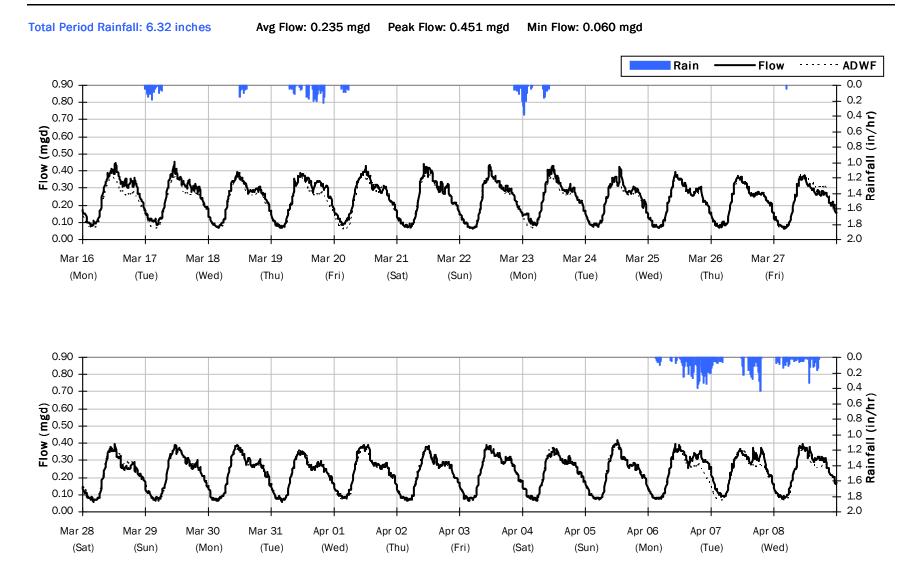
Total Period Rainfall: 12.09 inches



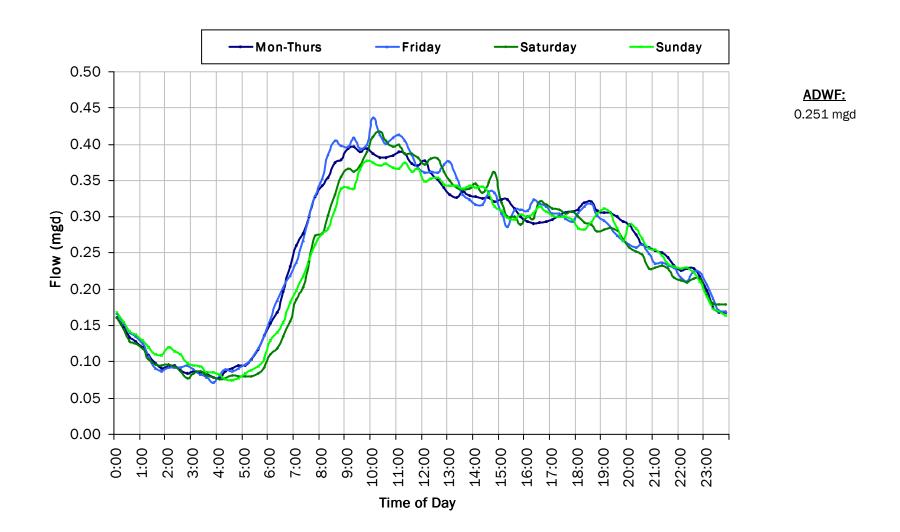
FM-05 Flow Summary: 2/21/2020 to 3/15/2020



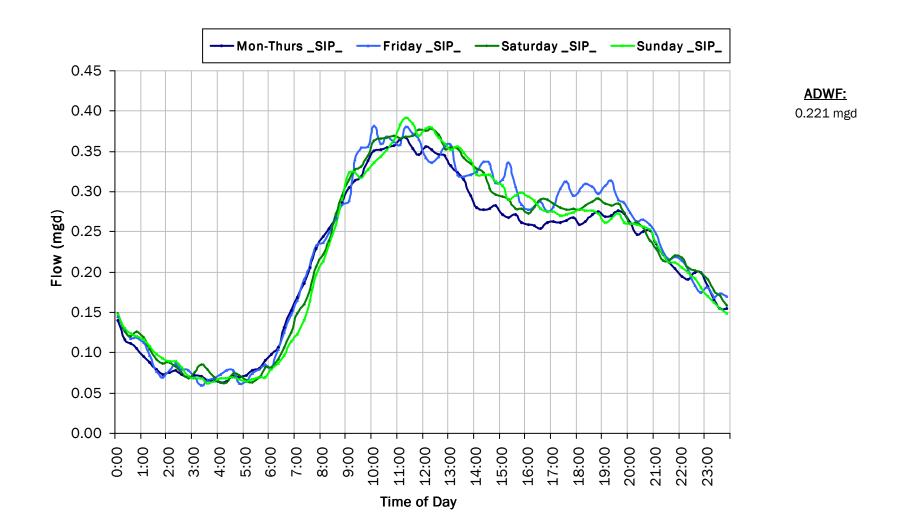
FM-05 Flow Summary: 3/16/2020 to 4/8/2020



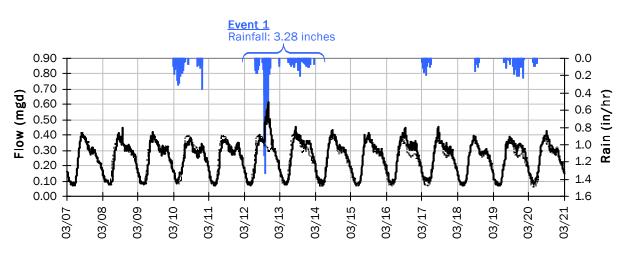
FM-05 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



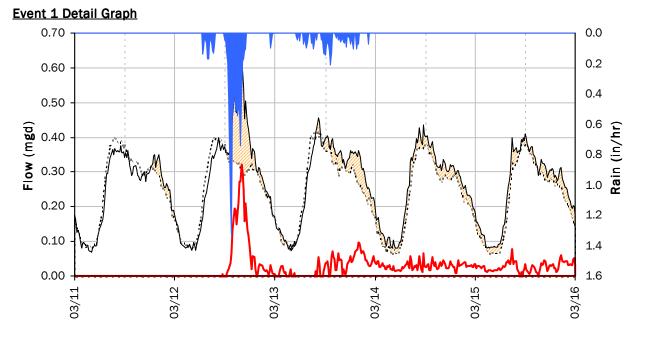
FM-05 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



FM-05 I/I Summary: Event 1



Baseline and Realtime Flows with Rainfall Data over Monitoring Period



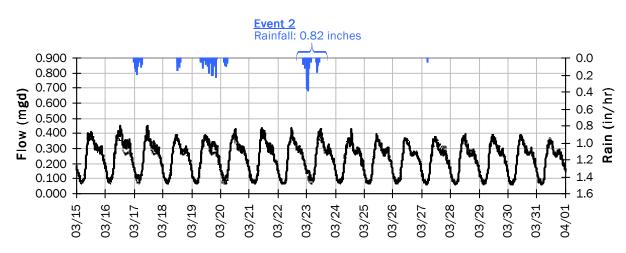
Storm Event I/I Analysis (Rain = 3.28 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.62 mgd 2.62	Peak I/I Rate: Total I/I:	0.32 mgd 117,000 gallons
Peak Level:	in		

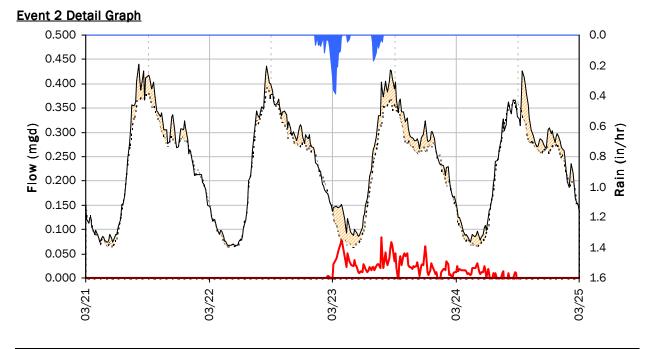
d/D Ratio:

388

FM-05 I/I Summary: Event 2



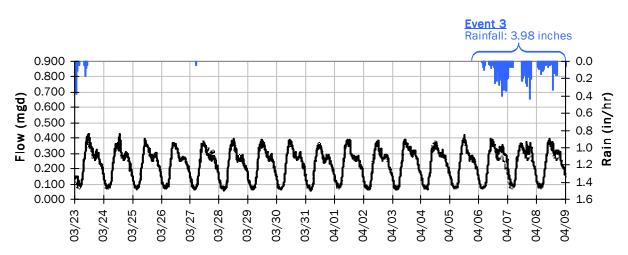
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 0.82 inches)

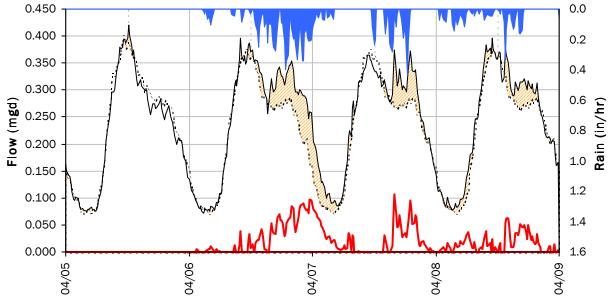
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.43 mgd 1.82	Peak I/I Rate: Total I/I:	0.09 mgd 32,000 gallons
Peak Level: d/D Ratio:	in		

FM-05 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 3.98 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.40 <i>mgd</i> 1.69	Peak I/I Rate: Total I/I:	0.11 mgd 60,000 gallons
Peak Level: d/D Ratio:	in		

City of Beaumont

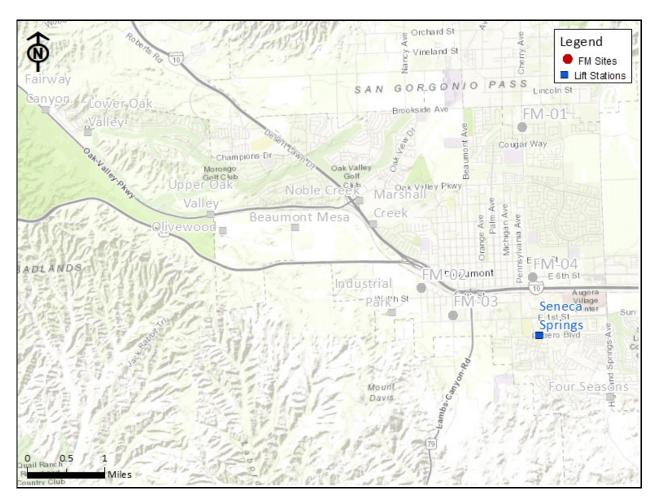
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-06

City Structure: Seneca Springs LS

Location: Potrero Blvd and Seneca Springs Blvd

Data Summary Report



Vicinity Map: FM-06

FM-06

Site Information

City Structure: Seneca Springs LS Coordinates: 116.9619° W, 33.9185° N Rim Elev: 2564 feet

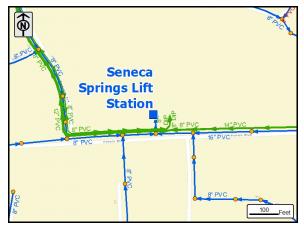
Location: Potrero Blvd and Seneca Springs Blvd

ADWF: 0.146 mgd

Peak Measured Flow: 0.477 mgd



Satellite Map



Sanitary Map

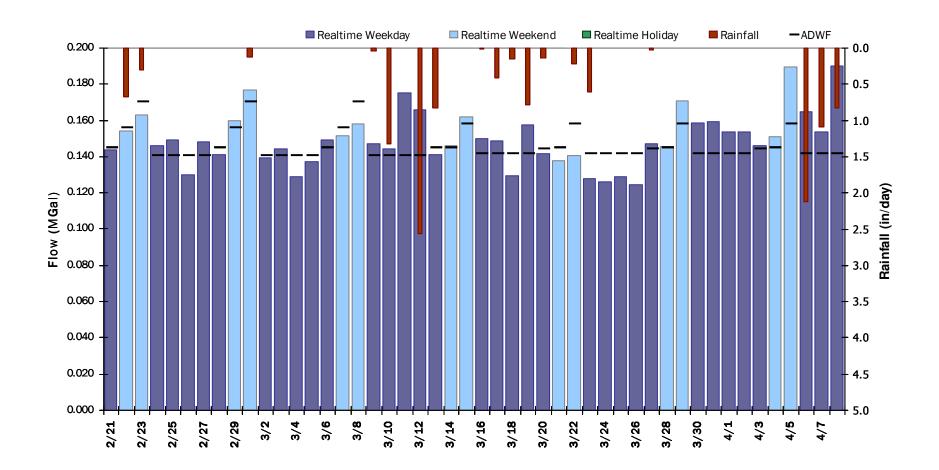


Street View

FM-06 Period Flow Summary: Daily Flow Totals

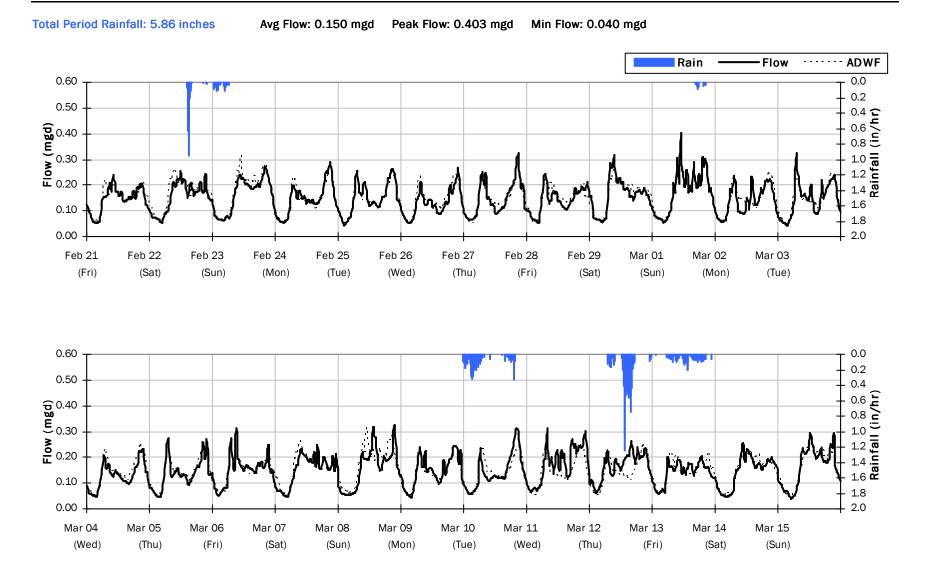
Avg Period Flow: 0.150 MGal Peak Daily Flow: 0.190 MGal Min Daily Flow: 0.124 MGal

Total Period Rainfall: 12.26 inches



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FM-06 Flow Summary: 2/21/2020 to 3/15/2020



TV&A | FM-06 - 4

FM-06 Flow Summary: 3/16/2020 to 4/8/2020

Mar 28

(Sat)

Mar 29

(Sun)

Mar 30

(Mon)

Mar 31

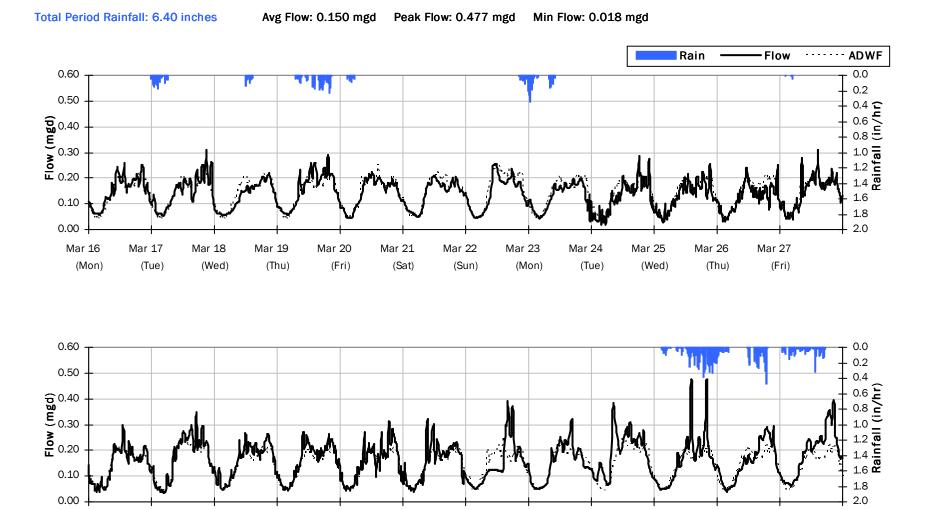
(Tue)

Apr 01

(Wed)

Apr 02

(Thu)



Apr 03

(Fri)

Apr 04

(Sat)

Apr 05

(Sun)

Apr 07

(Tue)

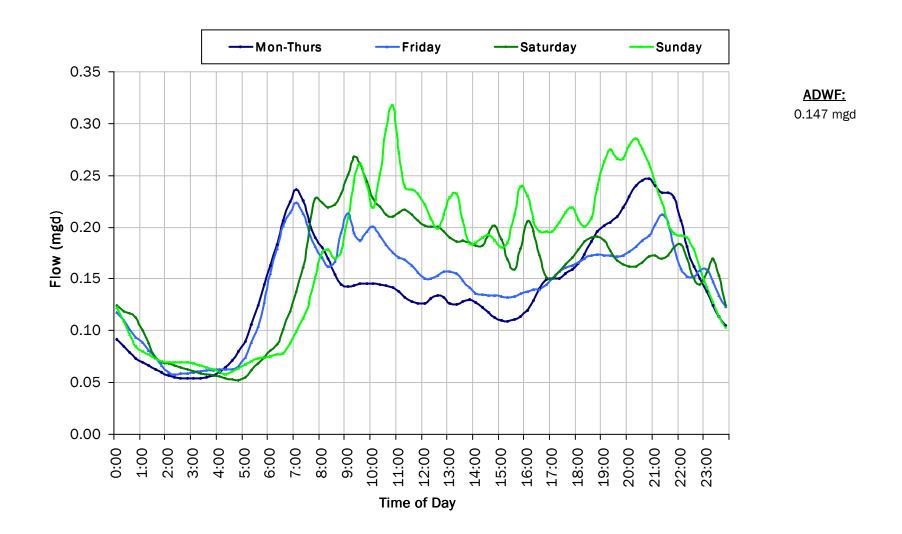
Apr 06

(Mon)

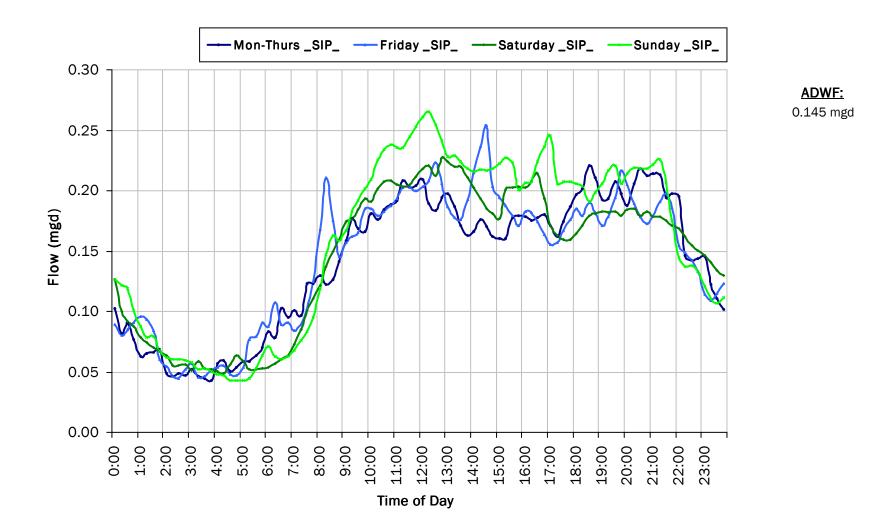
Apr 08

(Wed)

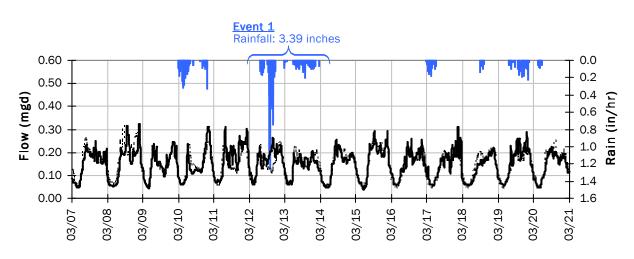
FM-06 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



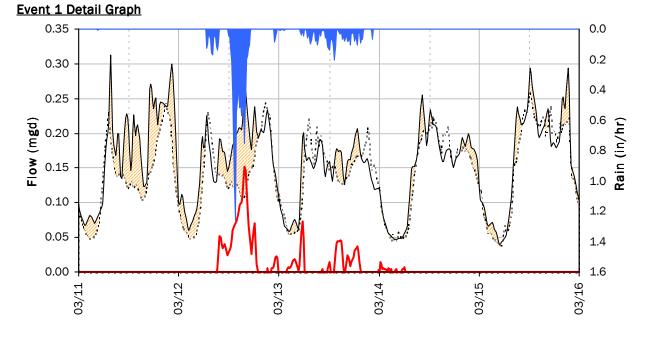
FM-06 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



FM-06 I/I Summary: Event 1



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

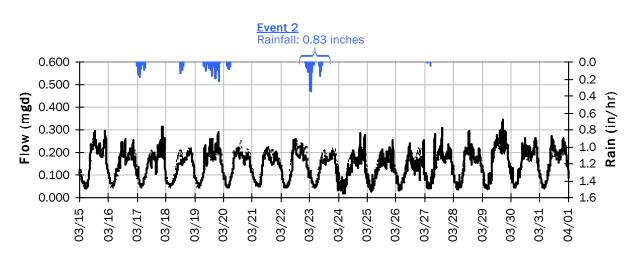


Storm Event I/I Analysis (Rain = 3.39 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.26 <i>mgd</i> 1.80	Peak I/I Rate: Total I/I:	0.15 mgd 27,000 gallons
Peak Level:	in		

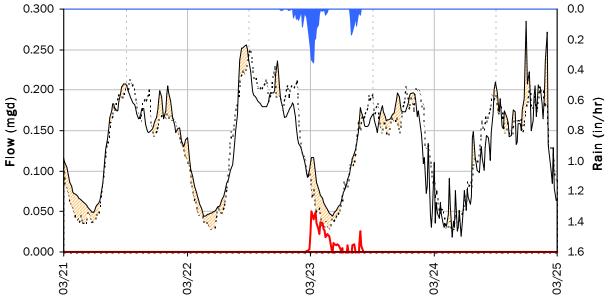
d/D Ratio:

FM-06 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

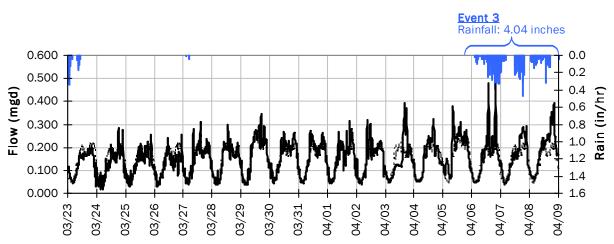




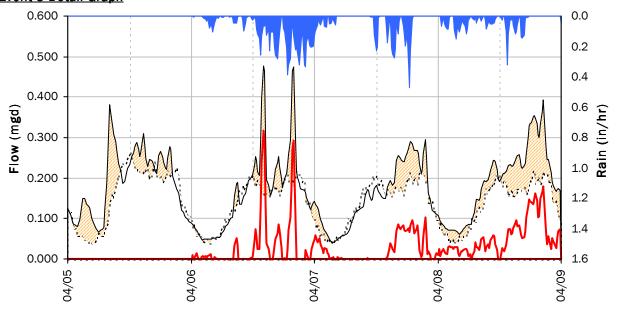
Storm Event I/I Analysis (Rain = 0.83 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.18 mgd 1.22	Peak I/I Rate: Total I/I:	0.05 mgd 6,000 gallons
Peak Level: d/D Ratio:	in		

FM-06 I/I Summary: Event 3



Event 3 Detail Graph



Storm Event I/I Analysis (Rain = 4.04 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.48 mgd 3.27	Peak I/I Rate: Total I/I:	0.32 mgd 98,000 gallons
Peak Level: d/D Ratio:	in		

Baseline and Realtime Flows with Rainfall Data over Monitoring Period

City of Beaumont

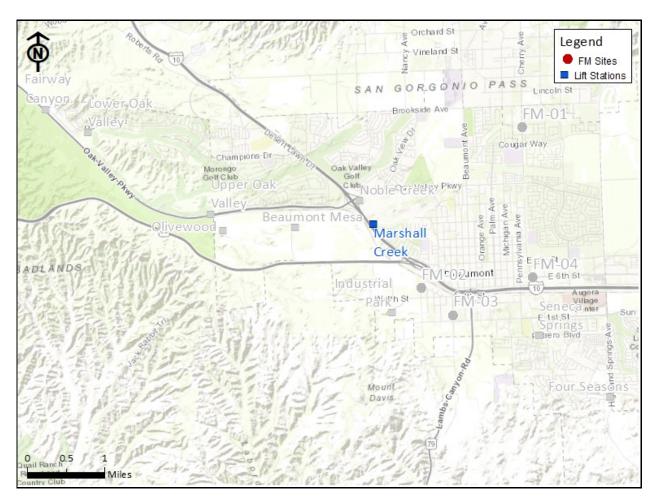
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-07

City Structure: Marshall Creek LS

Location: Northwest end of Ring Ranch Road

Data Summary Report



Vicinity Map: FM-07

FM-07

Site Information

City Structure: Marshall Creek LS Coordinates: 116.9984° W, 33.9405° N Rim Elev: 2499 feet

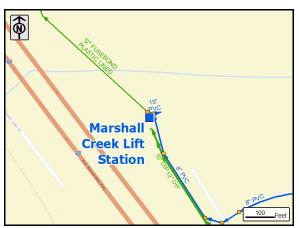
Location: Northwest end of Ring Ranch Road

ADWF: 0.424 mgd

Peak Measured Flow: 1.400 mgd



Satellite Map



Sanitary Map

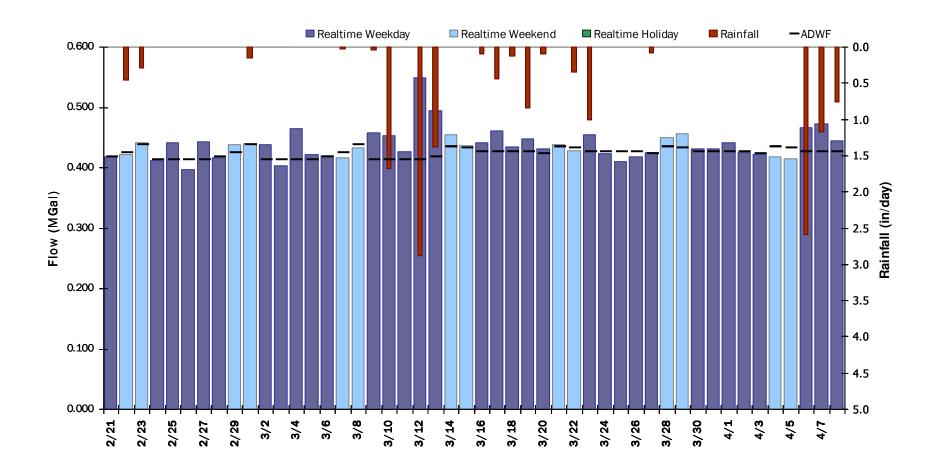


Street View

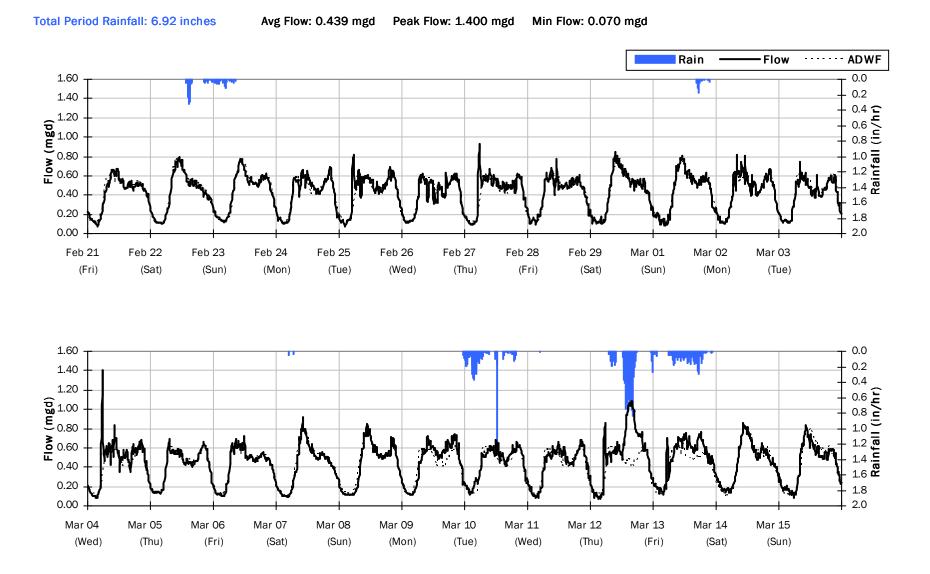
FM-07 Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.438 MGal Peak Daily Flow: 0.549 MGal Min Daily Flow: 0.396 MGal

Total Period Rainfall: 14.49 inches

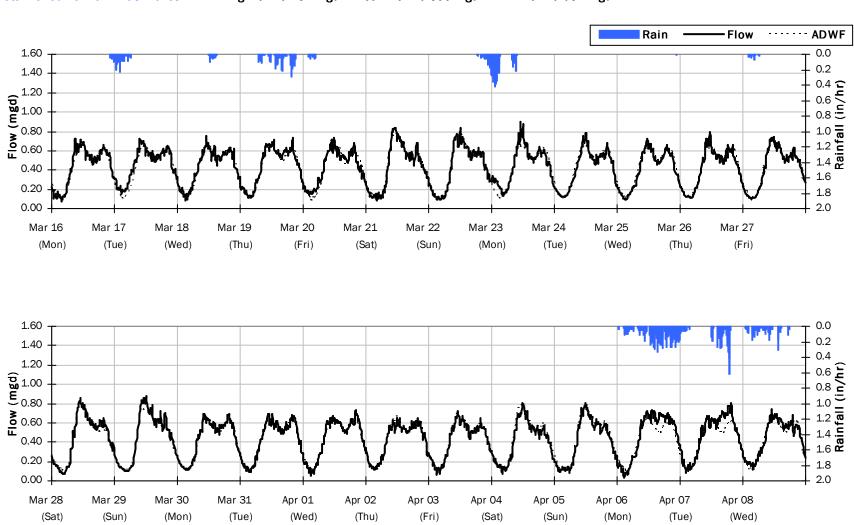


FM-07 Flow Summary: 2/21/2020 to 3/15/2020



| FM-07 - 4

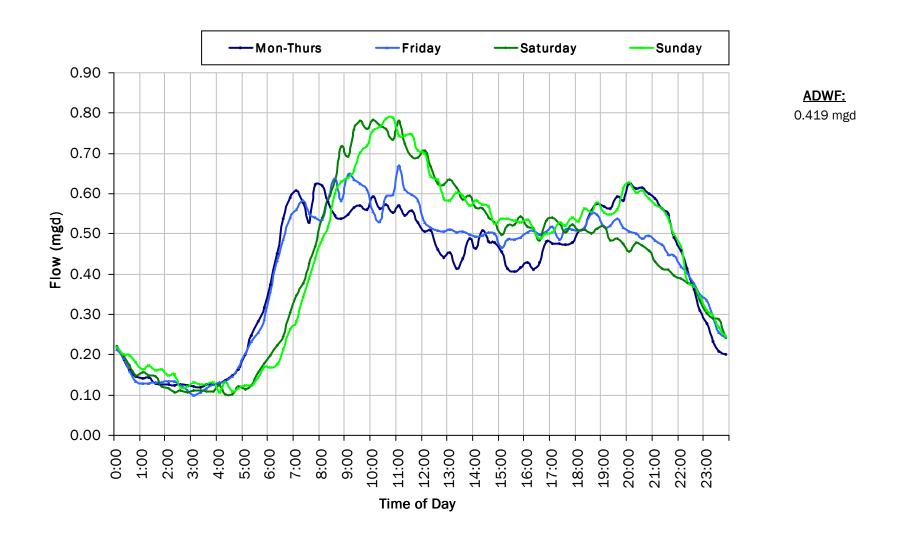
FM-07 Flow Summary: 3/16/2020 to 4/8/2020



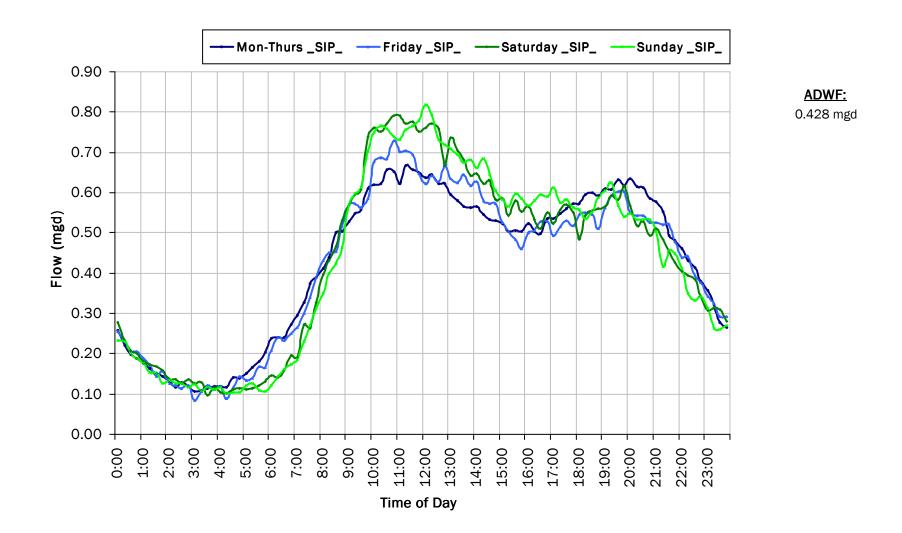
Total Period Rainfall: 7.58 inches Avg Flow: 0.437 mgd Peak Flow: 0.899 mgd Min Flow: 0.034 mgd

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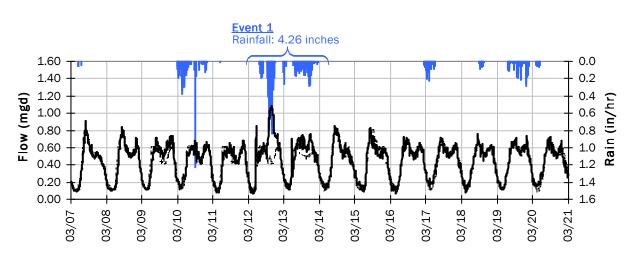
FM-07 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



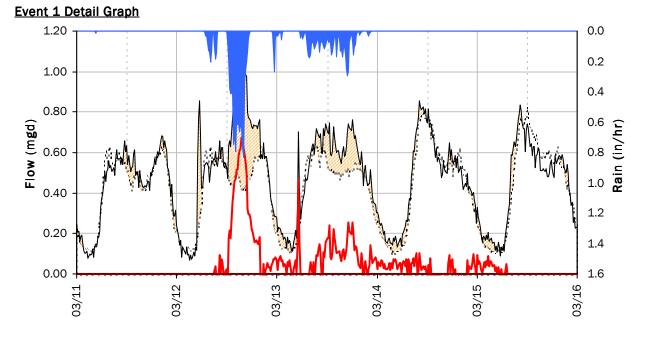
FM-07 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



FM-07 I/I Summary: Event 1



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

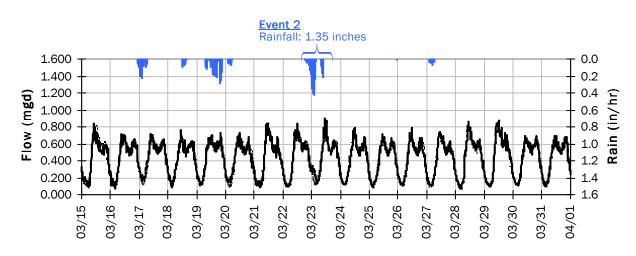


Storm Event I/I Analysis (Rain = 4.26 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow: PF:	1.08 mgd 2.55	Peak I/I Rate: Total I/I:	0.67 mgd 228,000 gallons
Peak Level:	in		

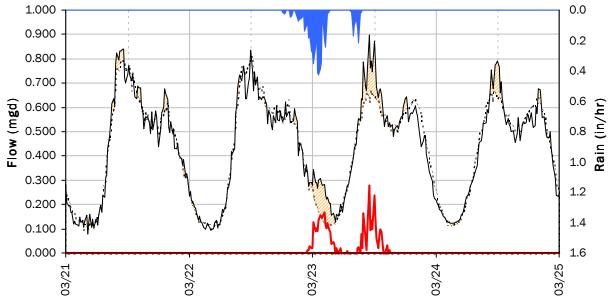
d/D Ratio:

FM-07 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

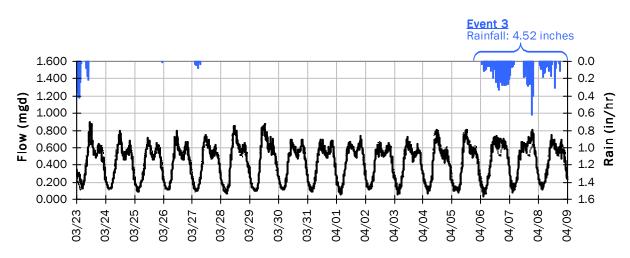




Storm Event I/I Analysis (Rain = 1.35 inches)

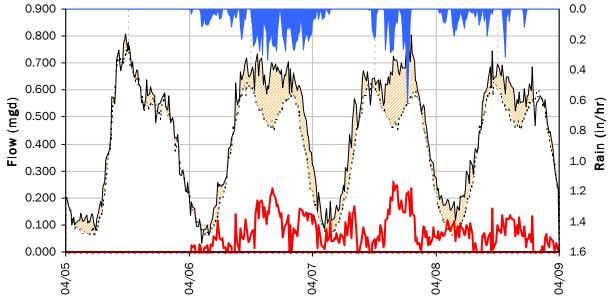
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.90 mgd 2.12	Peak I/I Rate: Total I/I:	0.28 mgd 36,000 gallons
Peak Level: d/D Ratio:	in		

FM-07 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 4.52 inches)

<u>Capacity</u>		Inflow / Infiltration	1
Peak Flow: PF:	0.80 mgd 1.89	Peak I/I Rate: Total I/I:	0.26 mgd 224,000 gallons
Peak Level: d/D Ratio:	in		

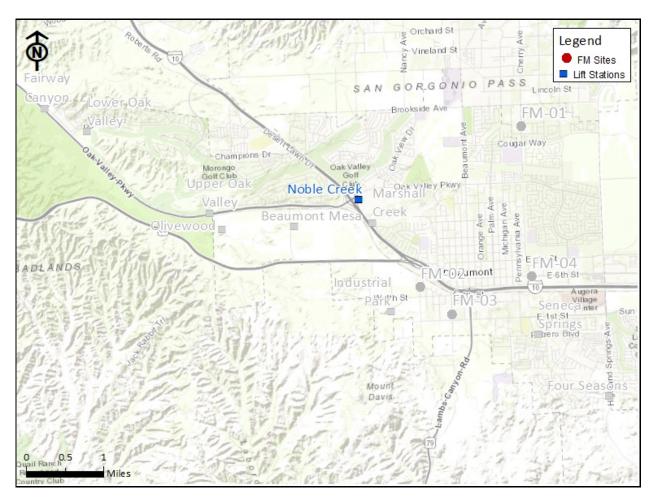
City of Beaumont

Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-08

- City Structure: Noble Creek LS
- Location: Northbound I-10 off-ramp to Oak Valley Parkway, 265 feet south of Oak Valley Pkwy

Data Summary Report



Vicinity Map: FM-08

FM-08

Site Information

City Structure: Noble Creek LS Coordinates: 117.0013° W, 33.9449° N Rim Elev: 2485 feet

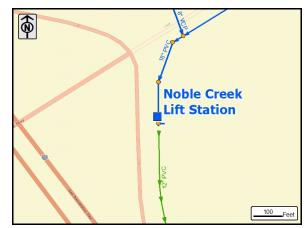
Location: Northbound I-10 off-ramp to Oak Valley Parkway, 265 feet south of Oak Valley Pkwy

ADWF: 0.240 mgd

Peak Measured Flow: 0.568 mgd



Satellite Map



Sanitary Map

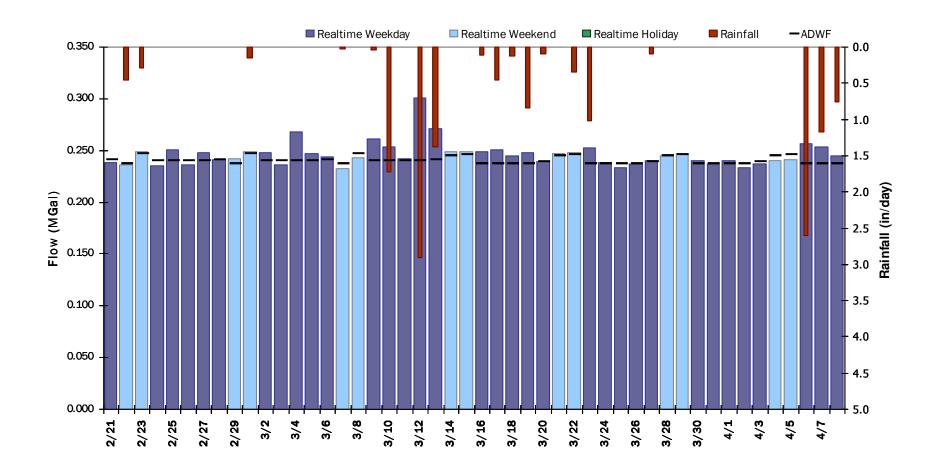


Street View

FM-08 Period Flow Summary: Daily Flow Totals

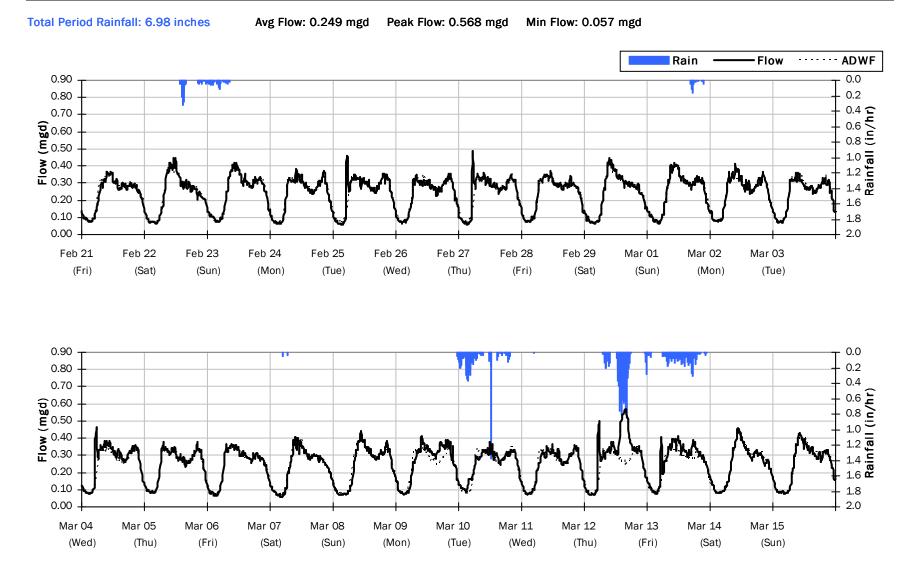
Avg Period Flow: 0.246 MGal Peak Daily Flow: 0.301 MGal Min Daily Flow: 0.232 MGal

Total Period Rainfall: 14.60 inches



FM-08

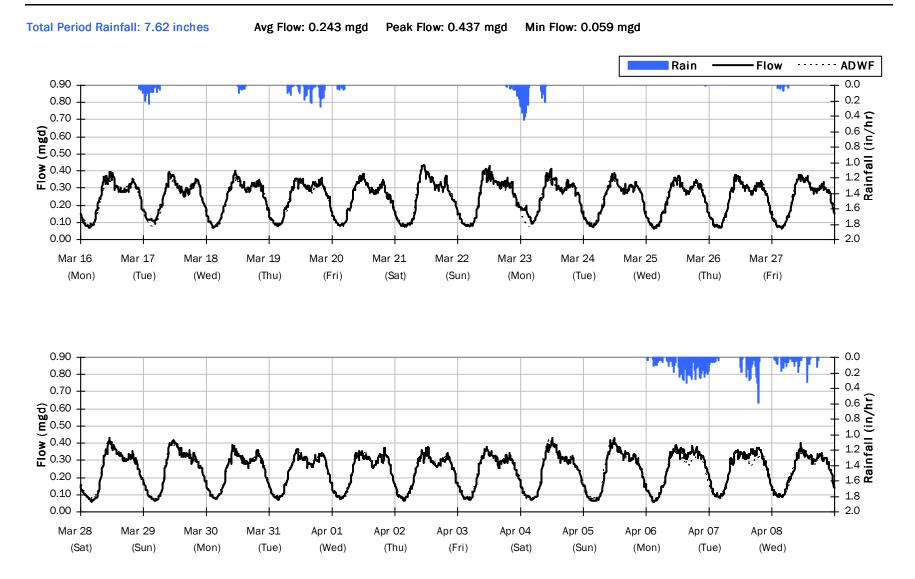
Flow Summary: 2/21/2020 to 3/15/2020



TV&A | FM-08 - 4

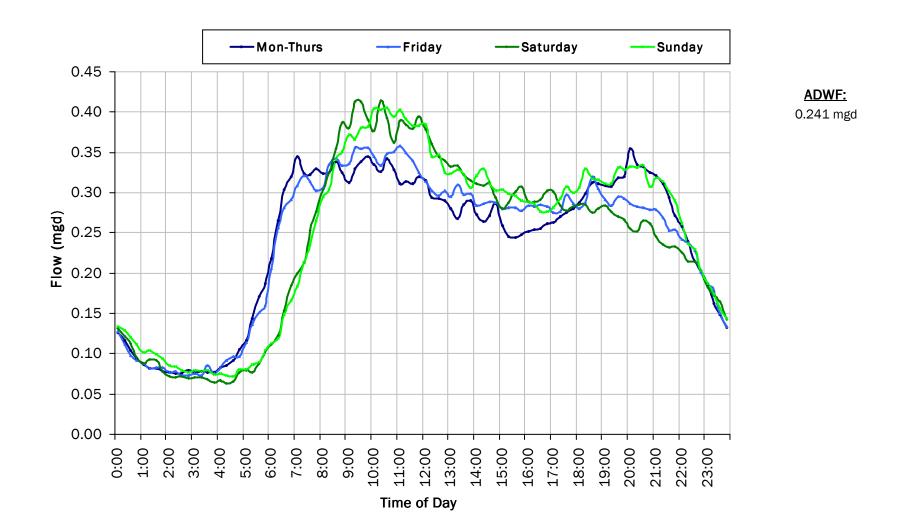
414

FM-08 Flow Summary: 3/16/2020 to 4/8/2020

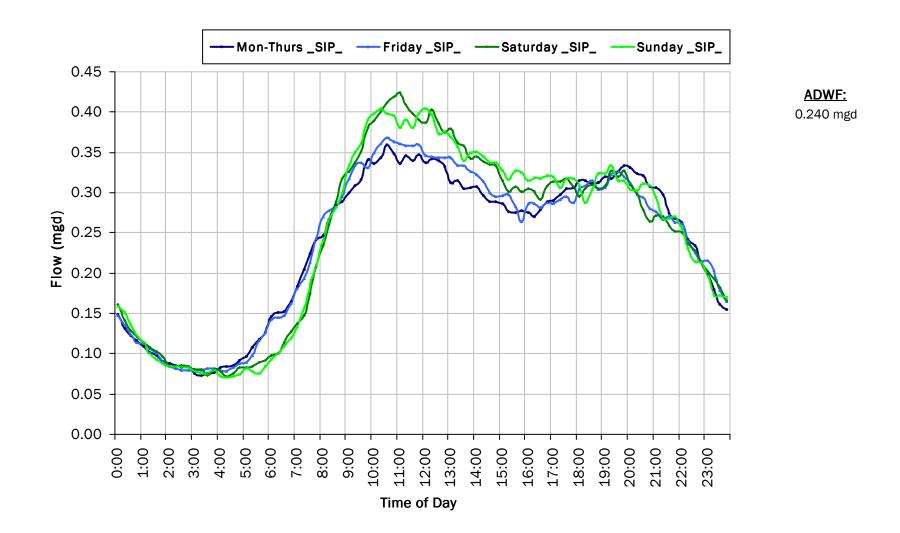


415

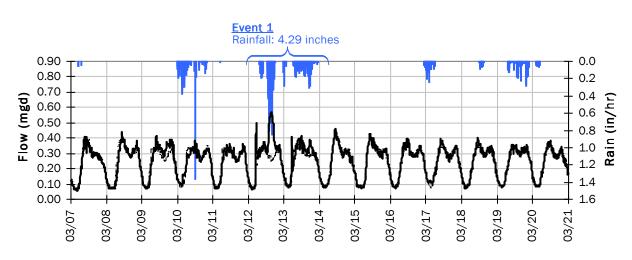
FM-08 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



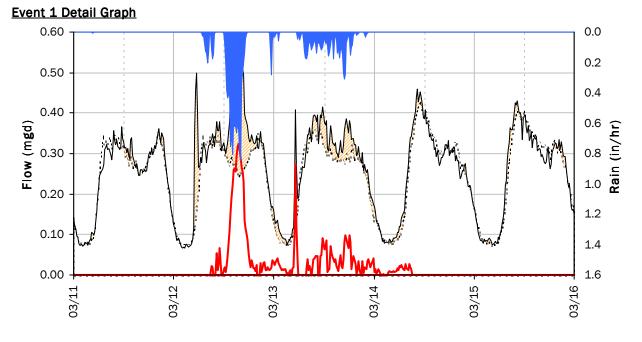
FM-08 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



FM-08 I/I Summary: Event 1



Baseline and Realtime Flows with Rainfall Data over Monitoring Period



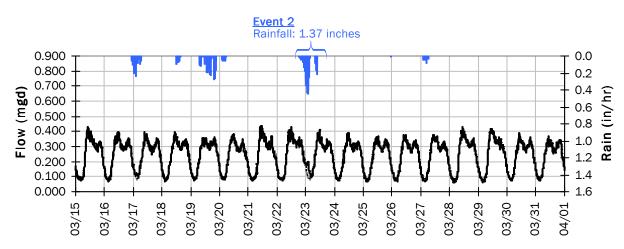
Storm Event I/I Analysis (Rain = 4.29 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.57 mgd 2.36	Peak I/I Rate: Total I/I:	0.32 mgd 85,000 gallons
Peak Level:	in		-

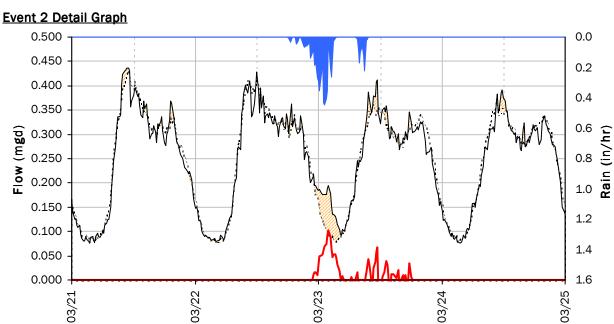
d/D Ratio:

A&**V**

FM-08 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period



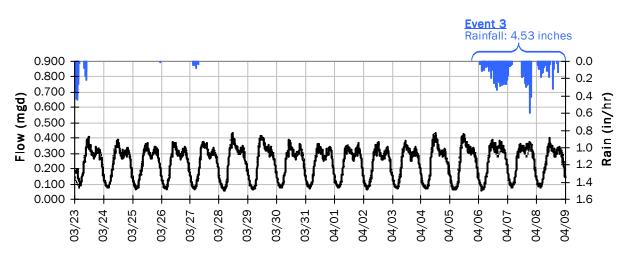
Storm Event I/I Analysis (Rain = 1.37 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.41 mgd 1.71	Peak I/I Rate: Total I/I:	0.10 mgd 14,000 gallons
Peak Level: d/D Ratio:	in		

Item 4.

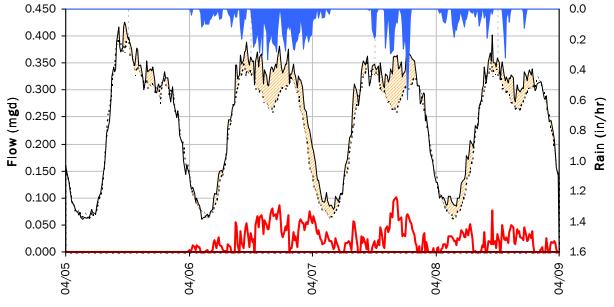
A&**V**

FM-08 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 4.53 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.40 <i>mgd</i> 1.67	Peak I/I Rate: Total I/I:	0.10 mgd 73,000 gallons
Peak Level: d/D Ratio:	in		

City of Beaumont

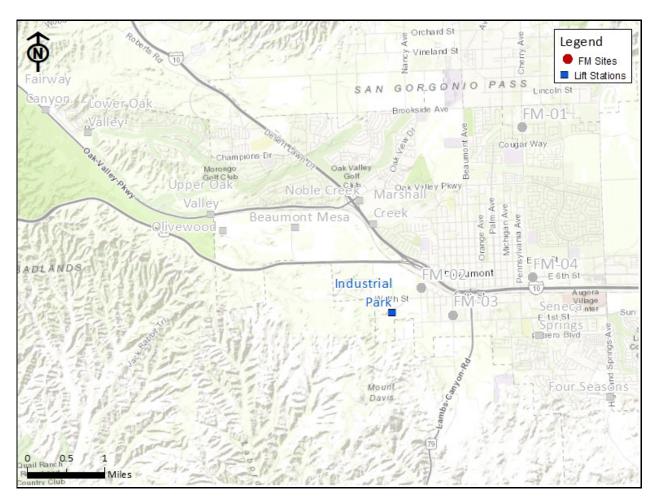
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-09

City Structure: Industrial Park LS

Location: Off road, 540 feet south of end of Risco Circle

Data Summary Report



Vicinity Map: FM-09

FM-09

Site Information

City Structure: Industrial Park LS Coordinates: 116.9948° W, 33.9239° N Rim Elev: 2522 feet

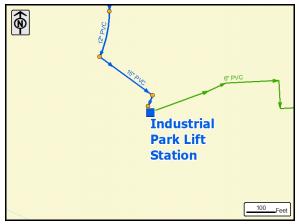
Location: Off road, 540 feet south of end of Risco Circle

ADWF: 0.050 mgd

Peak Measured Flow: 0.246 mgd



Satellite Map



Sanitary Map

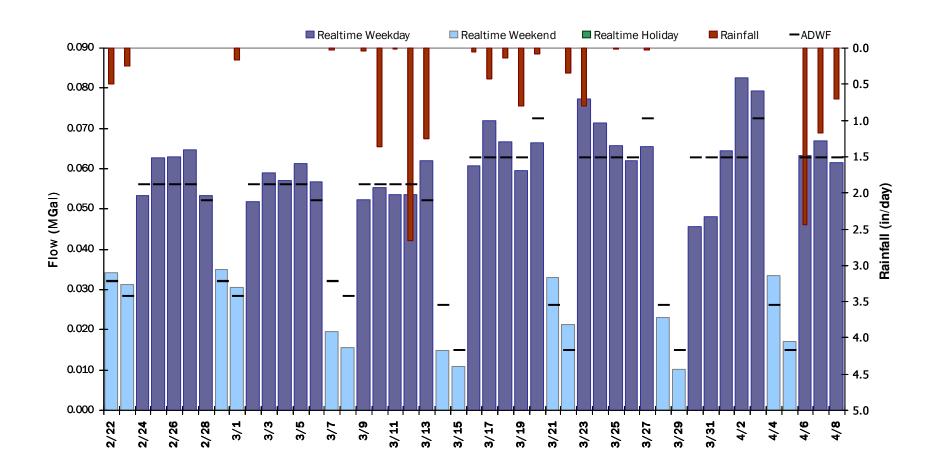


Street View

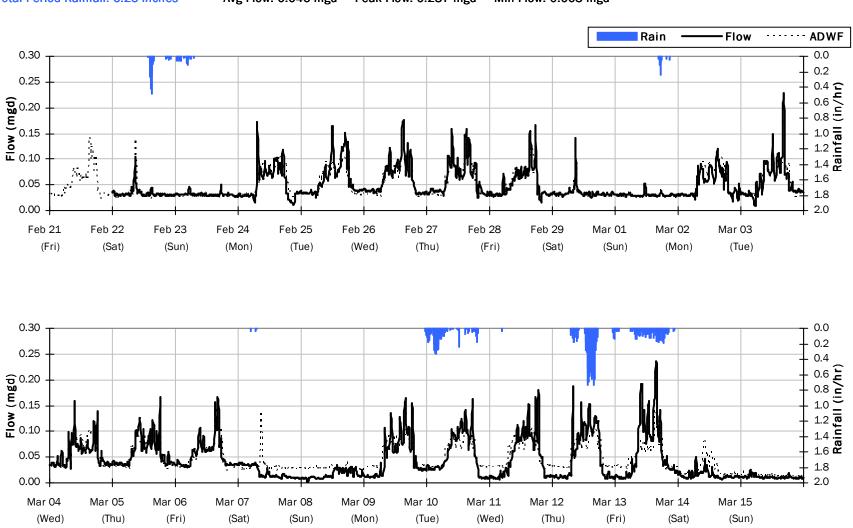
FM-09 Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.050 MGal Peak Daily Flow: 0.082 MGal Min Daily Flow: 0.010 MGal

Total Period Rainfall: 13.25 inches



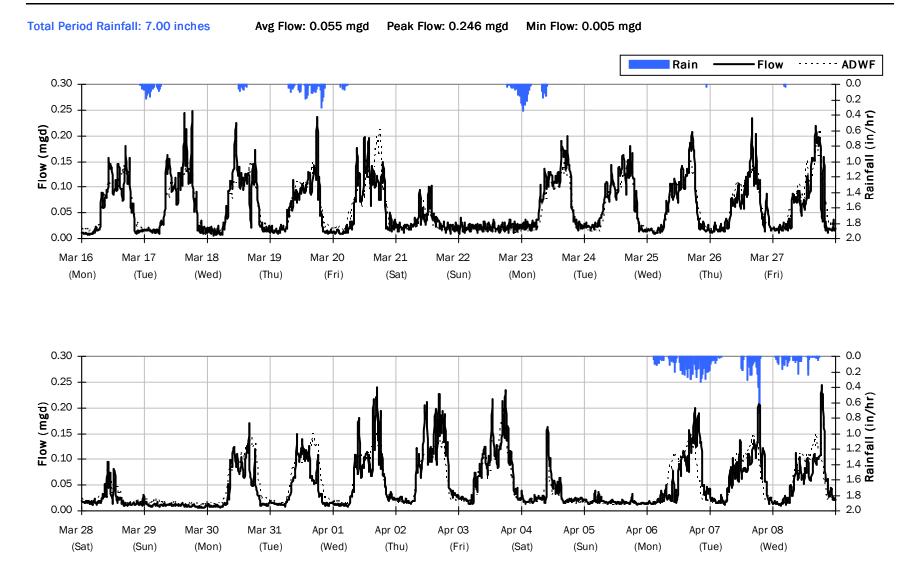
FM-09 Flow Summary: 2/21/2020 to 3/15/2020



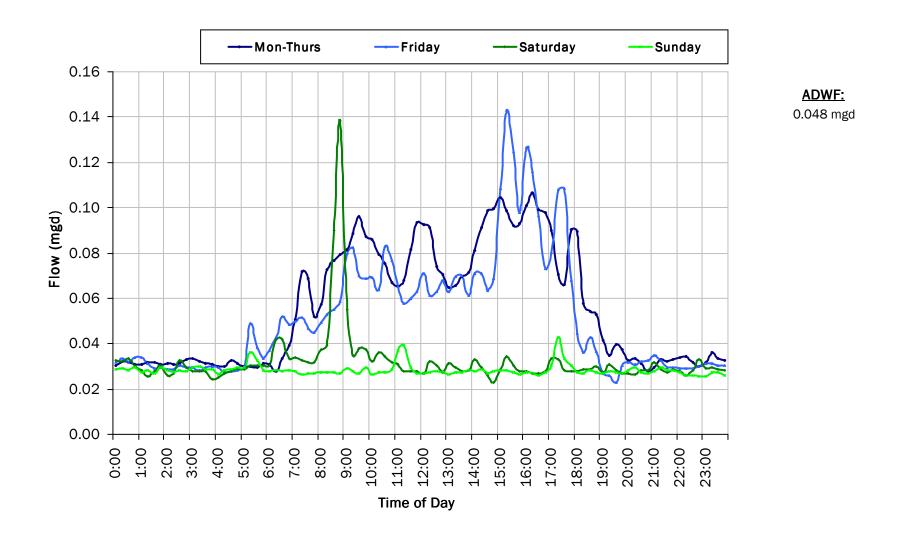
Total Period Rainfall: 6.25 inchesAvg Flow: 0.046 mgdPeak Flow: 0.237 mgdMin Flow: 0.003 mgd

V&A | FM-09 - 4 424

FM-09 Flow Summary: 3/16/2020 to 4/8/2020

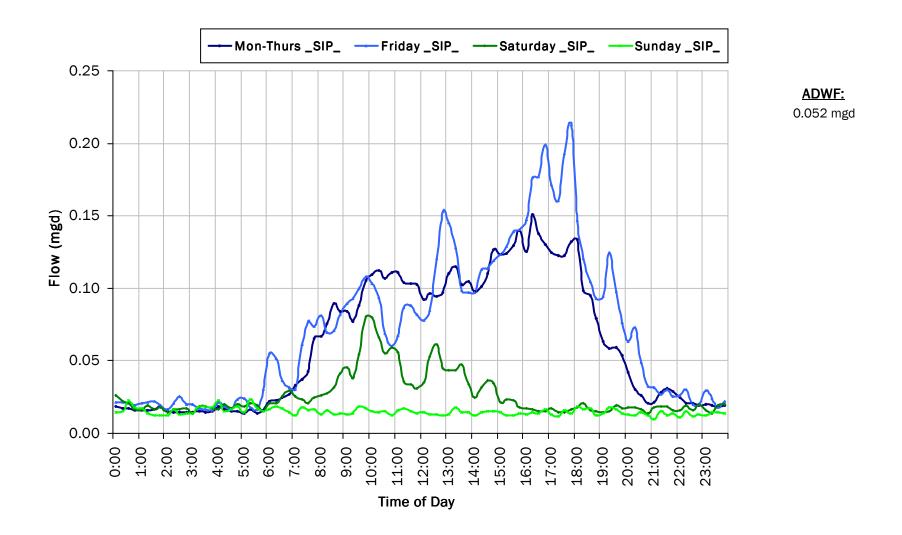


FM-09 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)

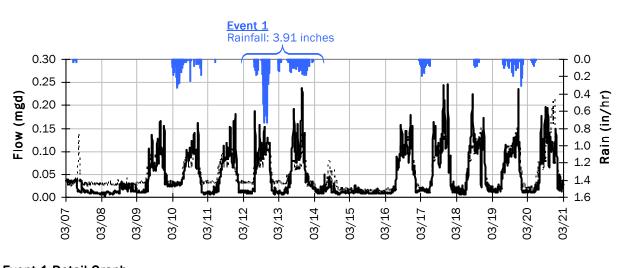


X&**V**

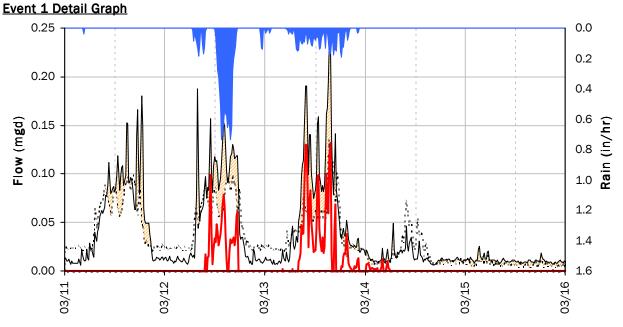
FM-09 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



FM-09 I/I Summary: Event 1



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

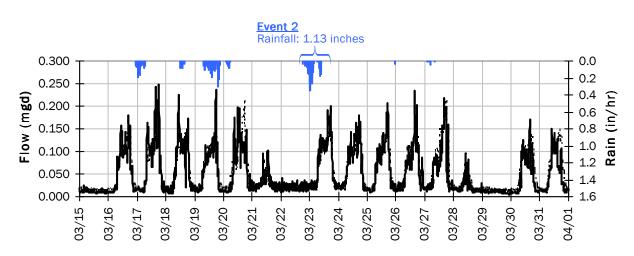


Storm Event I/I Analysis (Rain = 3.91 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.24 mgd 4.76	Peak I/I Rate: Total I/I:	0.13 mgd 26,000 gallons
Peak Level:	in		

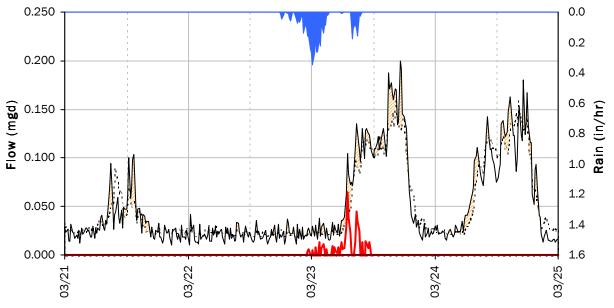
d/D Ratio:

FM-09 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

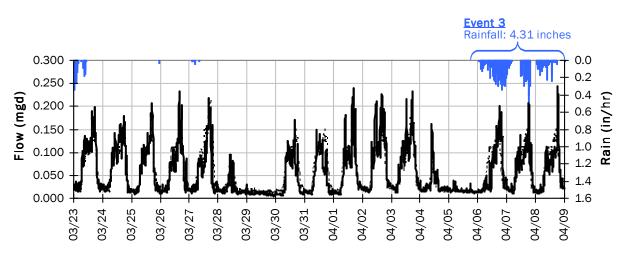




Storm Event I/I Analysis (Rain = 1.13 inches)

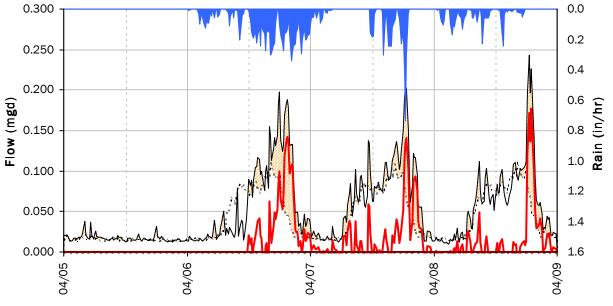
<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow: PF:	0.14 mgd 2.73	Peak I/I Rate: Total I/I:	0.06 mgd 4,000 gallons
Peak Level: d/D Ratio:	in		

FM-09 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 4.31 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.24 mgd 4.89	Peak I/I Rate: Total I/I:	0.18 mgd 51,000 gallons
Peak Level: d/D Ratio:	in		

City of Beaumont

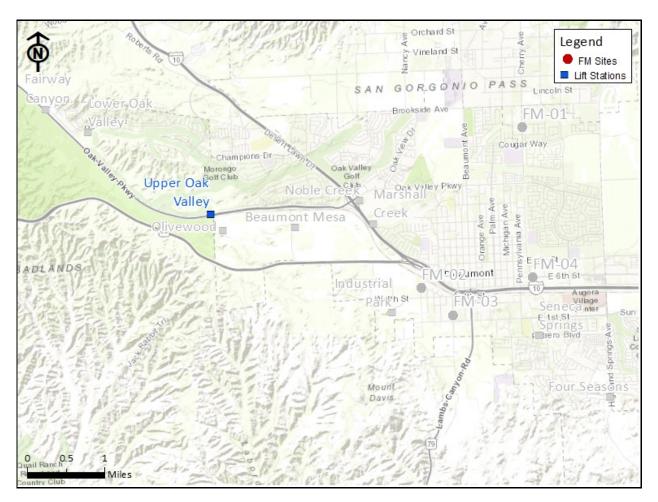
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-10

City Structure: Upper Oak Valley LS

Location: Oak Valley Parkway, 0.48 miles west of Apron Lane

Data Summary Report



Vicinity Map: FM-10

FM-10

Site Information

City Structure: Upper Oak Valley LS Coordinates: 117.0347° W, 33.9434° N Rim Elev: 2301 feet

Location: Oak Valley Parkway, 0.48 miles west of Apron Lane

ADWF: 0.780 mgd Peak Measured Flow: 1.757 mgd



Satellite Map



Sanitary Map

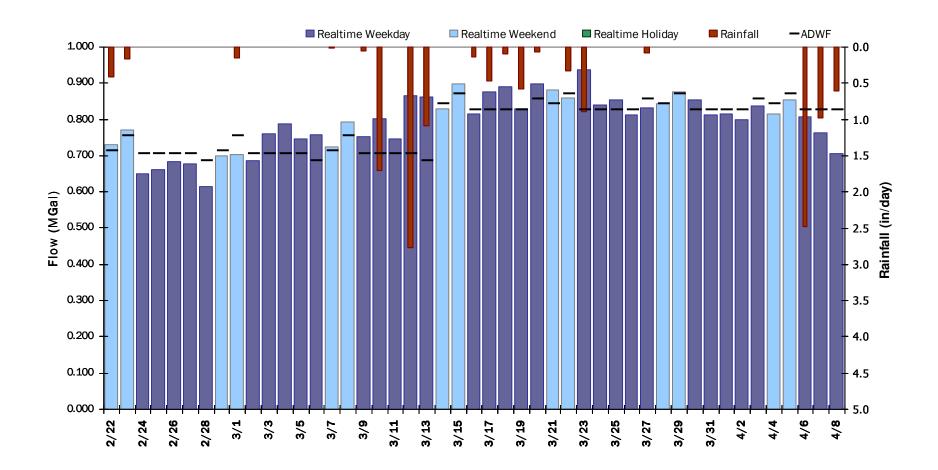


Street View

FM-10 Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.794 MGal Peak Daily Flow: 0.936 MGal Min Daily Flow: 0.615 MGal

Total Period Rainfall: 13.05 inches



V&A | FM-10 - 3 433

FM-10 Flow Summary: 2/21/2020 to 3/15/2020

Mar 04

(Wed)

Mar 05

(Thu)

Mar 06

(Fri)

Mar 07

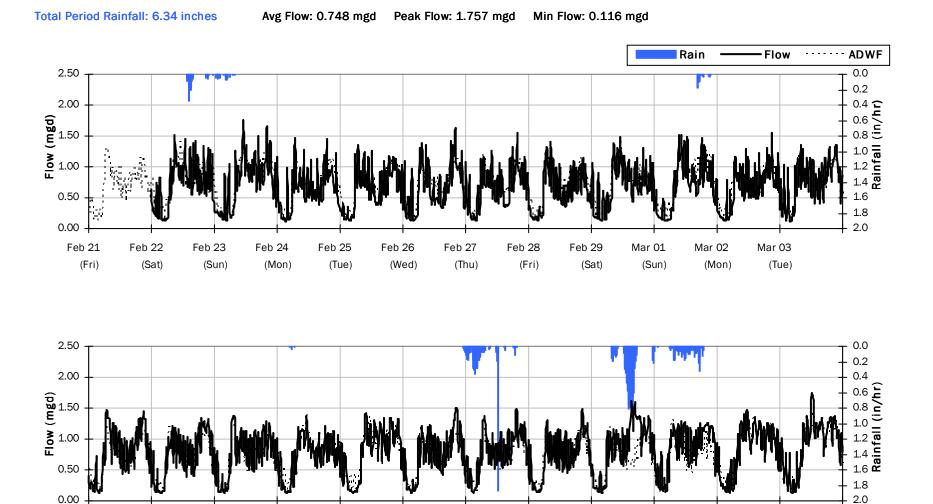
(Sat)

Mar 08

(Sun)

Mar 09

(Mon)



Mar 10

(Tue)

Mar 11

(Wed)

Mar 12

(Thu)

Mar 13

(Fri)

Mar 14

(Sat)

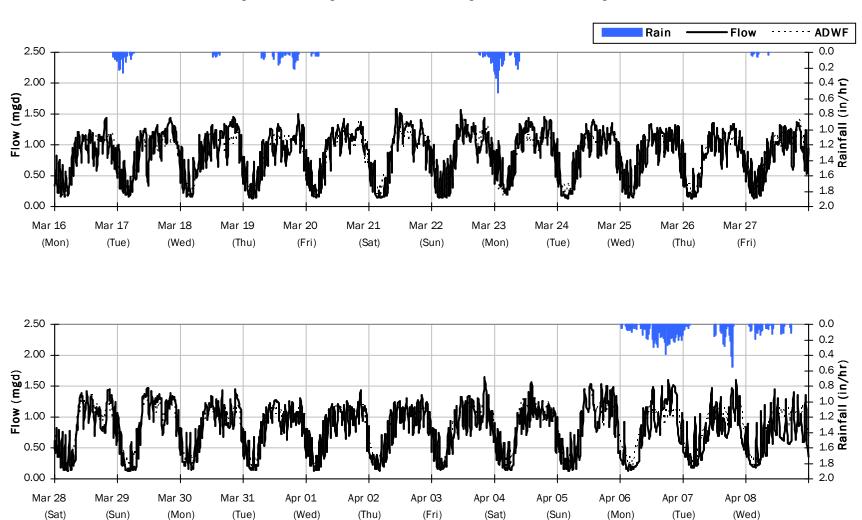
X&**V** | FM-10 - 4

Mar 15

(Sun)

434

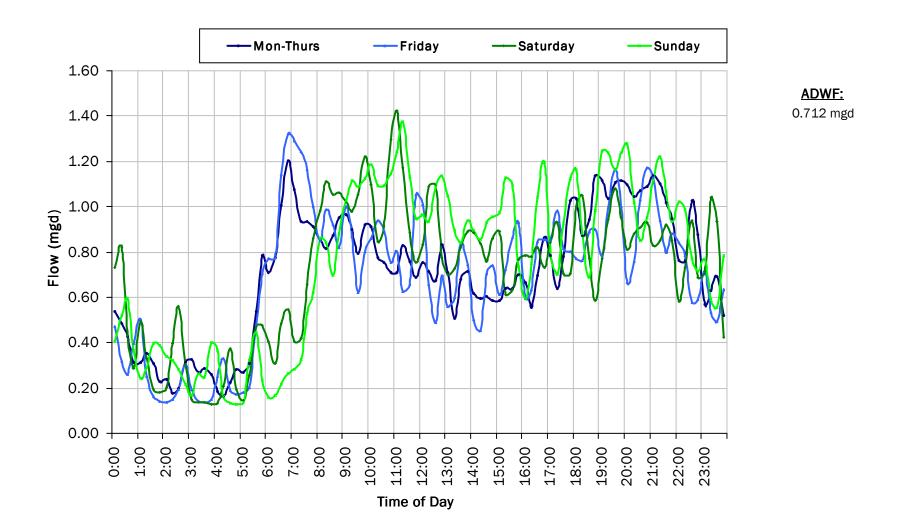
FM-10 Flow Summary: 3/16/2020 to 4/8/2020



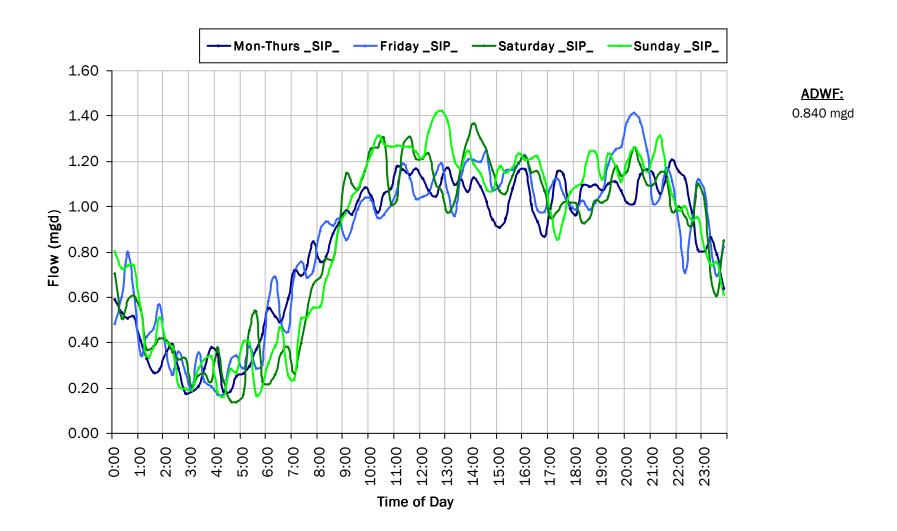
Total Period Rainfall: 6.71 inches Avg Flow: 0.838 mgd Peak Flow: 1.643 mgd Min Flow: 0.121 mgd

V&A | FM-10-5 435

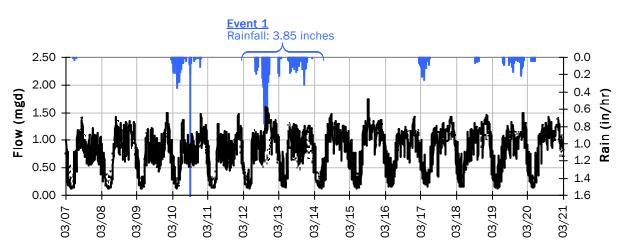
FM-10 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



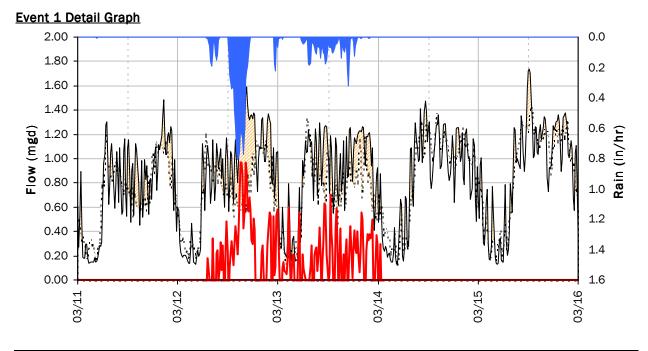
FM-10 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



FM-10 I/I Summary: Event 1



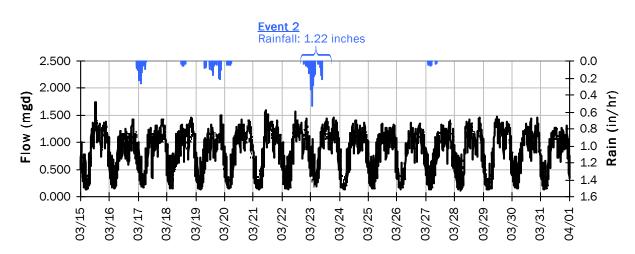
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 3.85 inches)

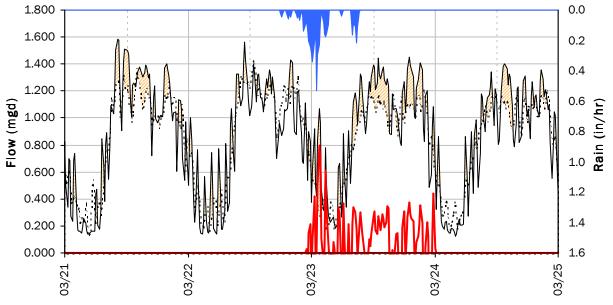
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	1.61 mgd 2.06	Peak I/I Rate: Total I/I:	0.97 mgd 350,000 gallons
Peak Level:	in		

FM-10 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

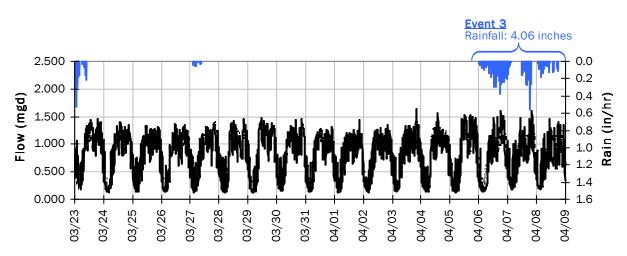




Storm Event I/I Analysis (Rain = 1.22 inches)

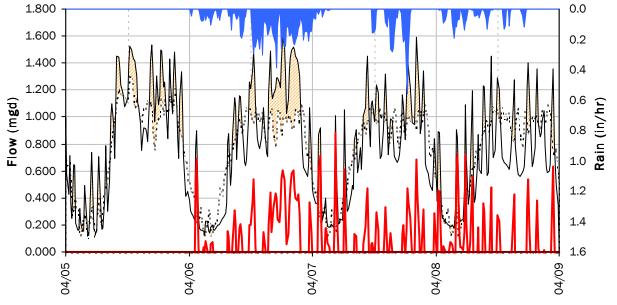
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	1.45 mgd 1.86	Peak I/I Rate: Total I/I:	0.80 mgd 111,000 gallons
Peak Level:	in		

FM-10 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 4.06 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	1.60 mgd 2.04	Peak I/I Rate: Total I/I:	0.88 mgd 69,000 gallons
Peak Level:	in		

City of Beaumont

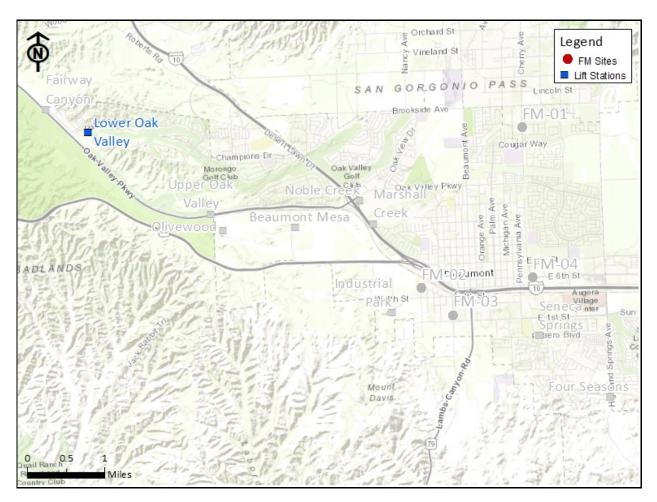
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-11

City Structure: Lower Oak Valley LS

Location: Palmer Avenue, 300 feet west of Morris Street

Data Summary Report



Vicinity Map: FM-11

FM-11

Site Information

City Structure: Lower Oak Valley LS Coordinates: 117.0616° W, 33.9595° N Rim Elev: 2157 feet

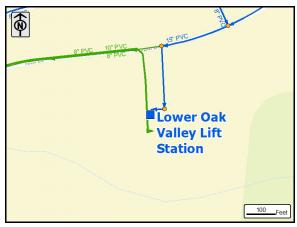
Location: Palmer Avenue, 300 feet west of Morris Street

ADWF: 0.417 mgd

Peak Measured Flow: 0.866 mgd



Satellite Map



Sanitary Map

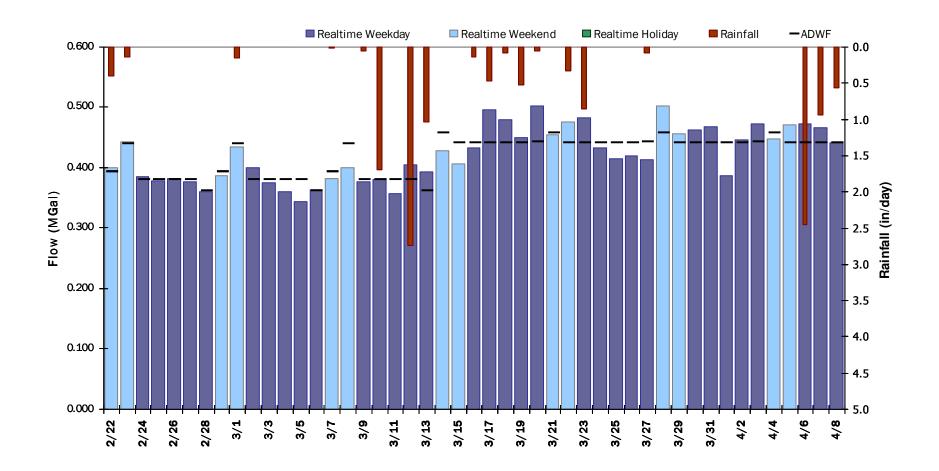


Street View

FM-11 Period Flow Summary: Daily Flow Totals

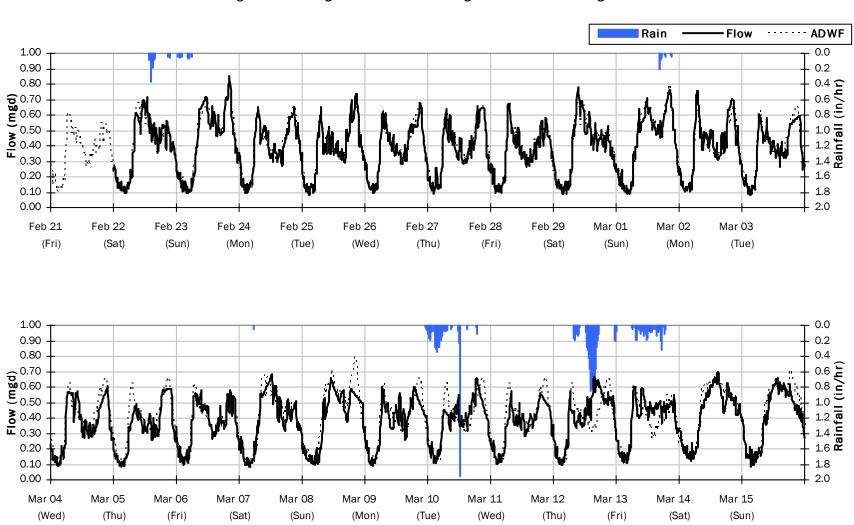
Avg Period Flow: 0.423 MGal Peak Daily Flow: 0.503 MGal Min Daily Flow: 0.345 MGal

Total Period Rainfall: 12.73 inches



V&A | FM-11-3 443

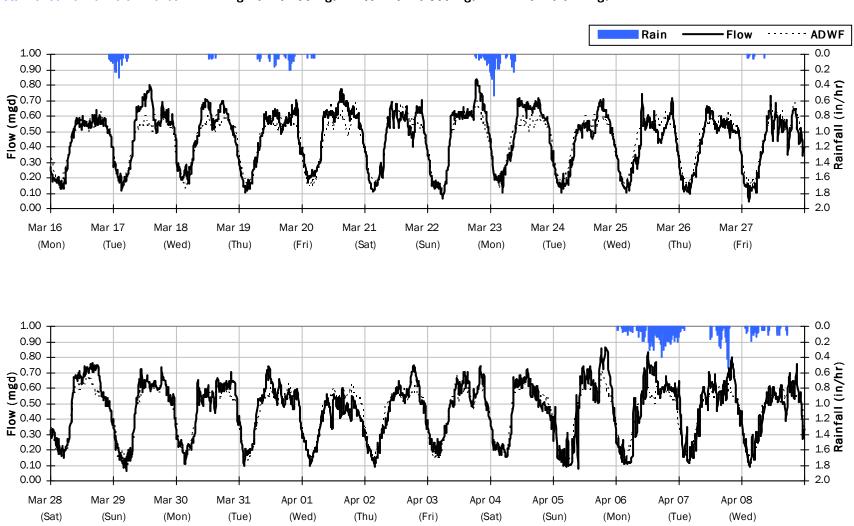
FM-11 Flow Summary: 2/21/2020 to 3/15/2020



Total Period Rainfall: 6.21 inches Avg Flow: 0.388 mgd Peak Flow: 0.851 mgd Min Flow: 0.081 mgd

V&A | FM-11 - 4 444

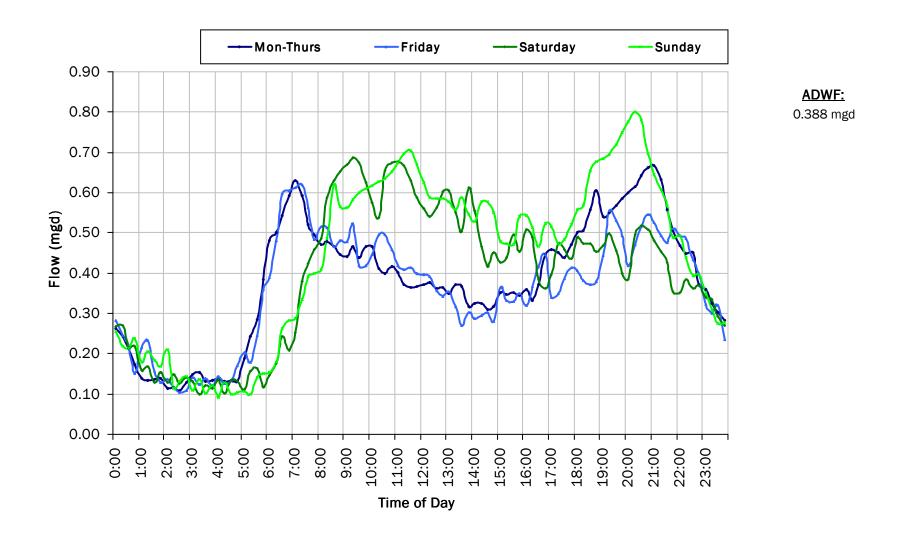
FM-11 Flow Summary: 3/16/2020 to 4/8/2020



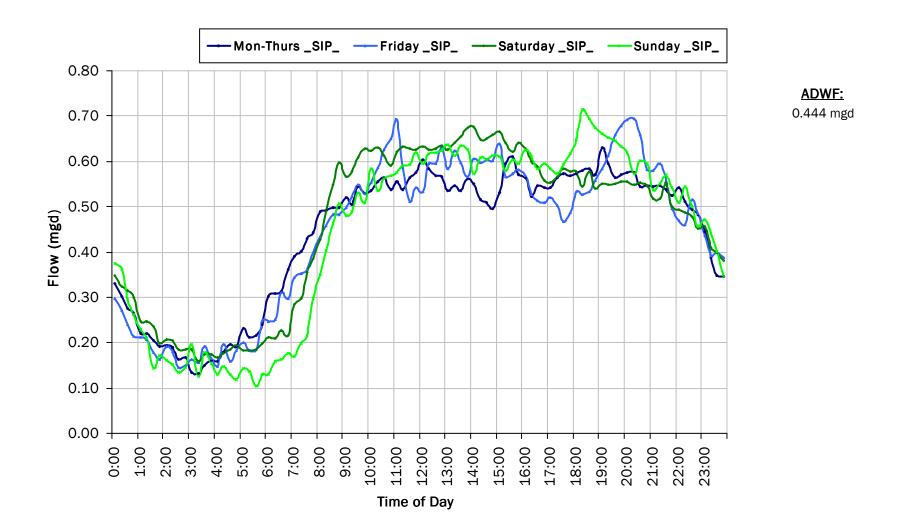
Total Period Rainfall: 6.51 inches Avg Flow: 0.456 mgd Peak Flow: 0.866 mgd Min Flow: 0.044 mgd

V&A | FM-11-5 445

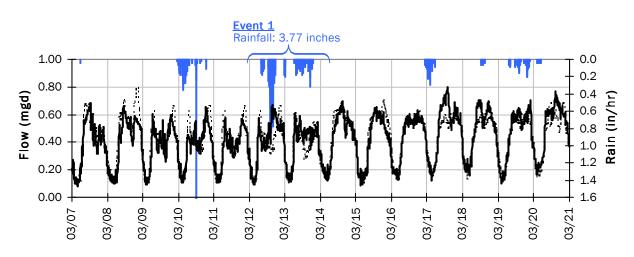
FM-11 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



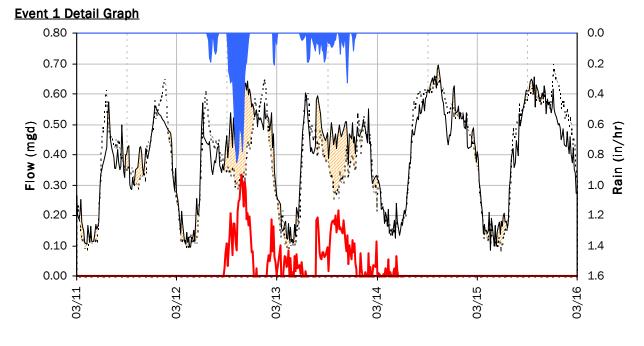
FM-11 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



FM-11 I/I Summary: Event 1



Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 3.77 inches)

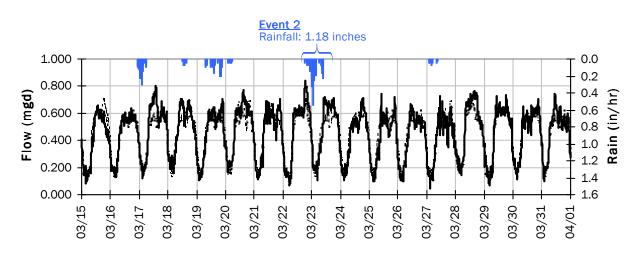
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.67 <i>mgd</i> 1.60	Peak I/I Rate: Total I/I:	0.33 mgd 103,000 gallons
Peak Level:	in		

d/D Ratio:

| FM-11-8

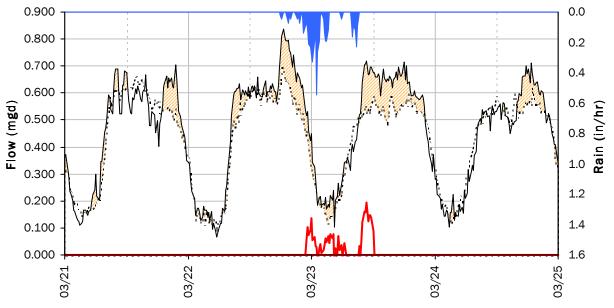
X&**V**

FM-11 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

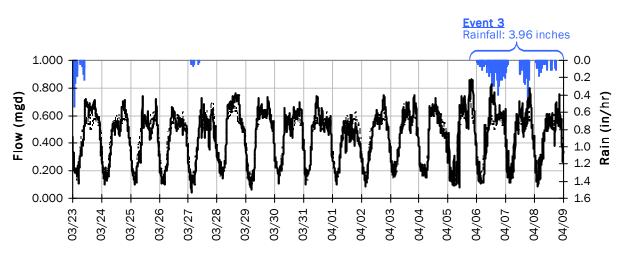




Storm Event I/I Analysis (Rain = 1.18 inches)

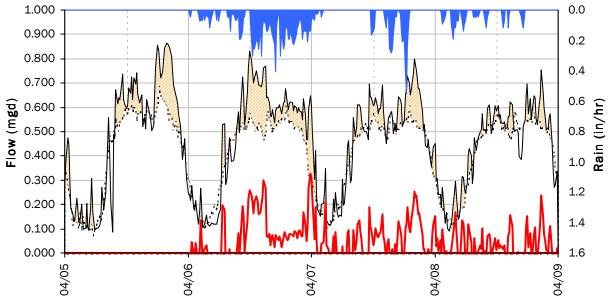
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.72 mgd 1.72	Peak I/I Rate: Total I/I:	0.20 mgd 23,000 gallons
Peak Level:	in		

FM-11 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 3.96 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.83 mgd 1.99	Peak I/I Rate: Total I/I:	0.33 mgd 149,000 gallons
Peak Level:	in		

City of Beaumont

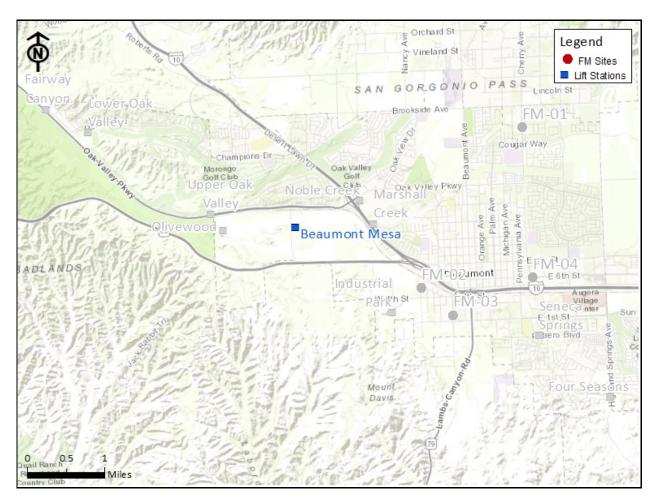
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-12

City Structure: Beaumont Mesa LS

Location: Potrero Blvd, just south of Costello Way

Data Summary Report



Vicinity Map: FM-12

451

FM-12

Site Information

City Structure: Beaumont Mesa LS Coordinates: 117.0160° W, 33.9404° N Rim Elev: 2425 feet

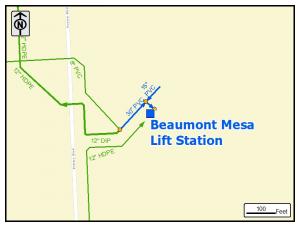
Location: Potrero Blvd, just south of Costello Way

ADWF: 0.816 mgd

Peak Measured Flow: 1.943 mgd



Satellite Map



Sanitary Map

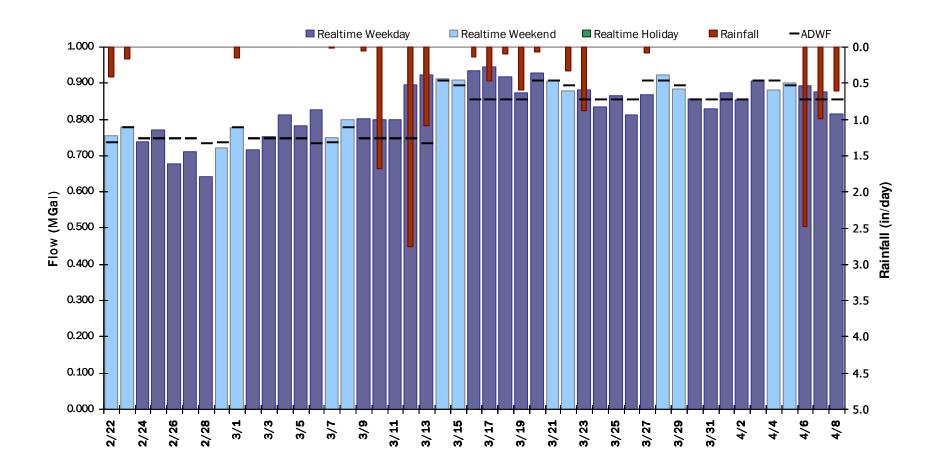


Street View

FM-12 Period Flow Summary: Daily Flow Totals

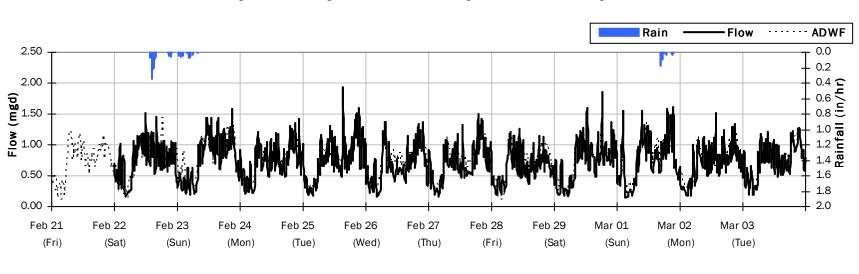
Avg Period Flow: 0.834 MGal Peak Daily Flow: 0.945 MGal Min Daily Flow: 0.641 MGal

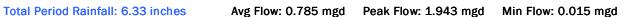
Total Period Rainfall: 13.03 inches

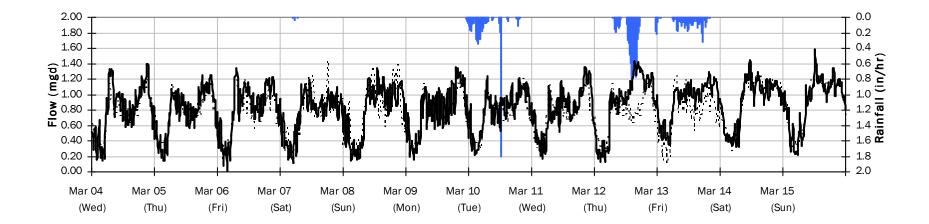


FM-12

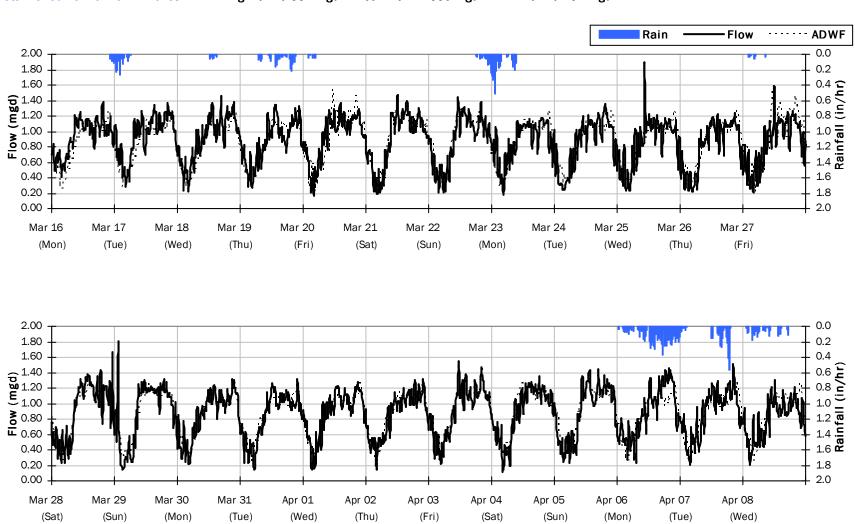
Flow Summary: 2/21/2020 to 3/15/2020







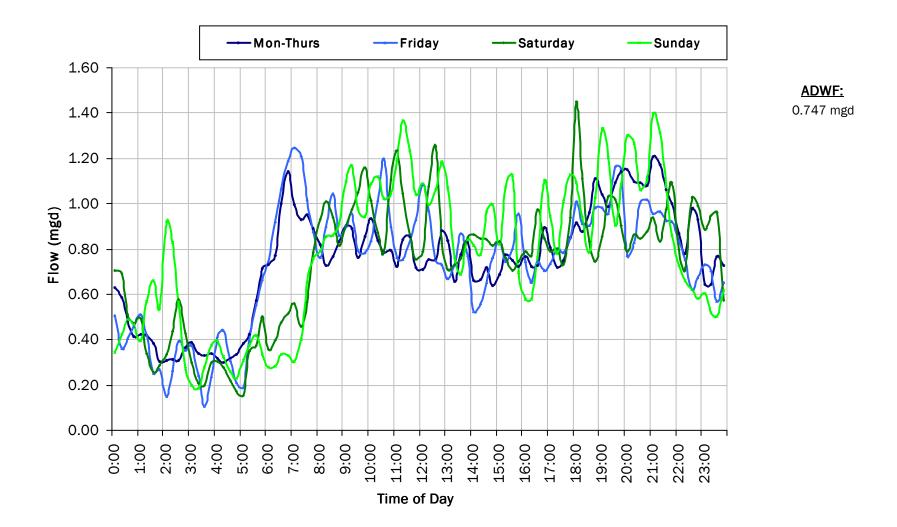
FM-12 Flow Summary: 3/16/2020 to 4/8/2020



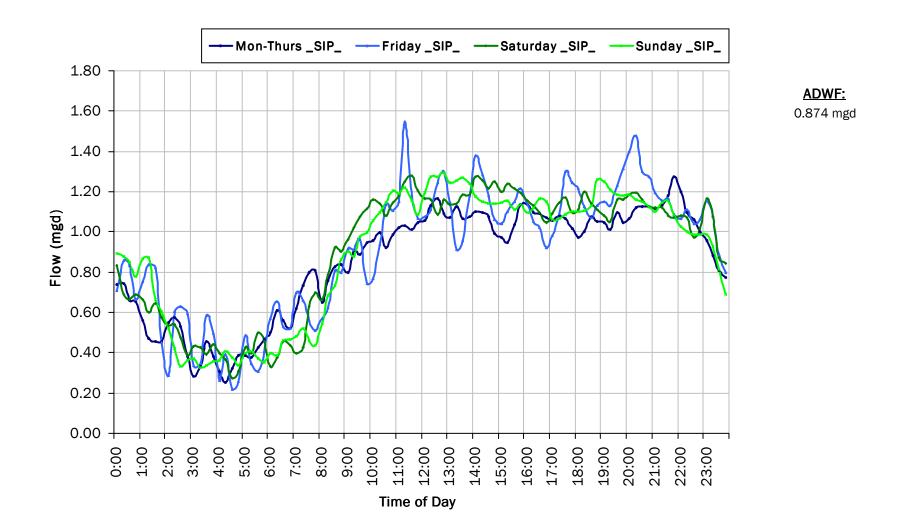
Total Period Rainfall: 6.71 inches Avg Flow: 0.881 mgd Peak Flow: 1.885 mgd Min Flow: 0.131 mgd

V&A | FM-12 - 5 455



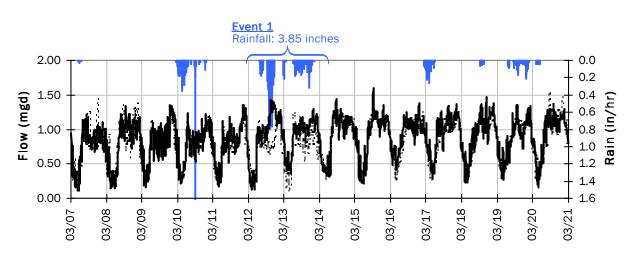


FM-12 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)

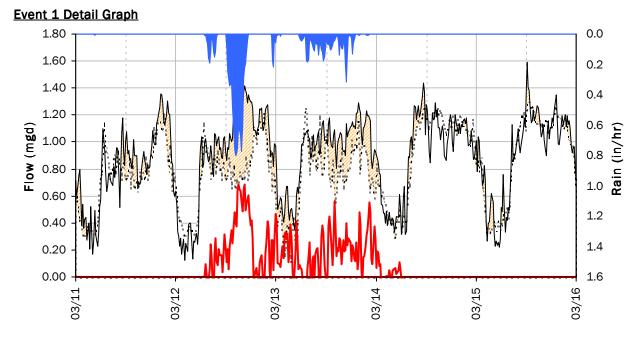


457

FM-12 I/I Summary: Event 1



Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 3.85 inches)

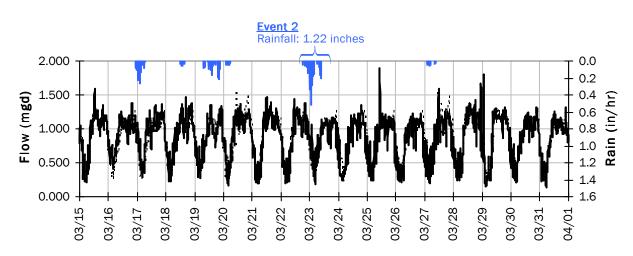
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	1.43 mgd 1.75	Peak I/I Rate: Total I/I:	0.69 mgd 367,000 gallons
Peak Level:	in		

d/D Ratio:

A&**V**

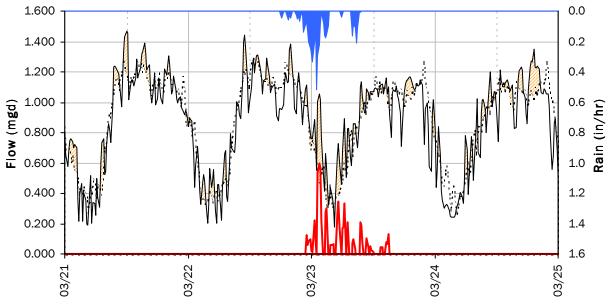
| FM-12 - 8

FM-12 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

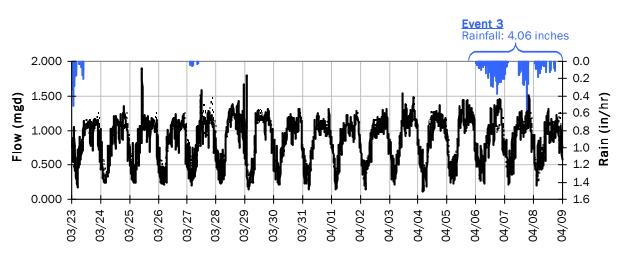




Storm Event I/I Analysis (Rain = 1.22 inches)

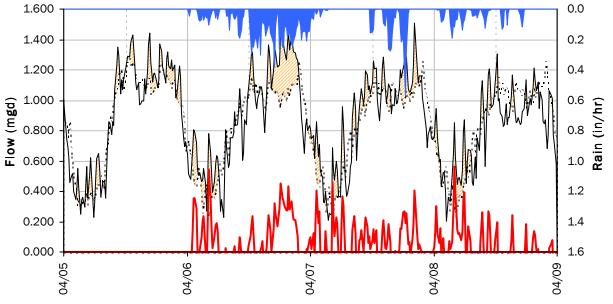
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	1.16 mgd 1.42	Peak I/I Rate: Total I/I:	0.60 mgd 52,000 gallons
Peak Level: d/D Ratio:	in		

FM-12 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 4.06 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	1.51 mgd 1.85	Peak I/I Rate: Total I/I:	0.57 mgd 86,000 gallons
Peak Level: d/D Ratio:	in		



460

City of Beaumont

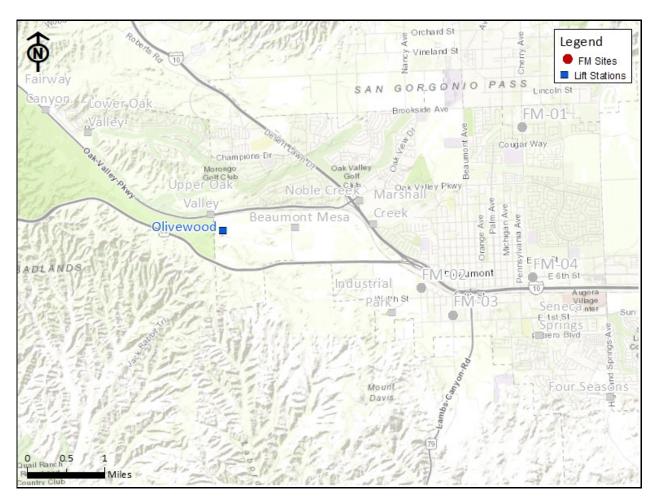
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-13

City Structure: Olivewood LS

Location: Northwest end of Olivewood Gated Community, off of Costello Way

Data Summary Report



Vicinity Map: FM-13

FM-13

Site Information

City Structure: Olivewood LS Coordinates: 117.0321° W, 33.9404° N Rim Elev: 2319 feet

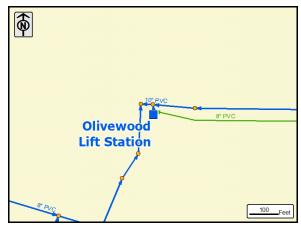
Location: Northwest end of Olivewood Gated Community, off of Costello Way

ADWF: 0.015 mgd

Peak Measured Flow: 0.070 mgd



Satellite Map



Sanitary Map

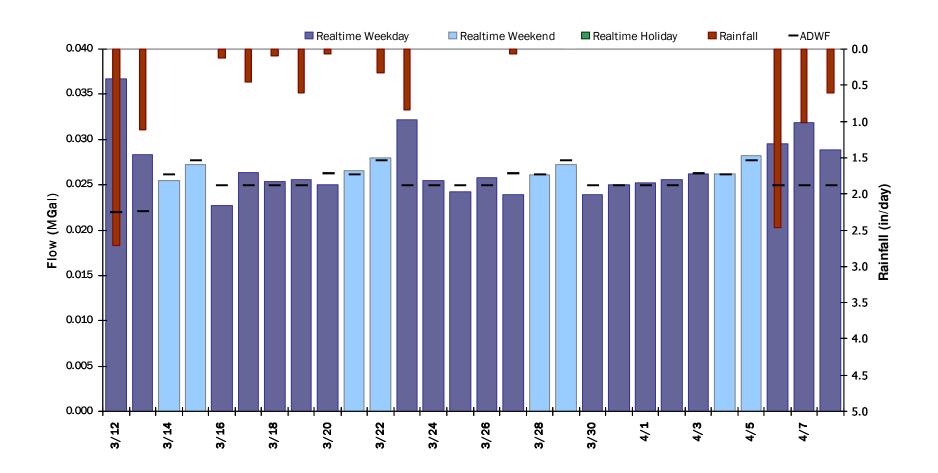


Street View

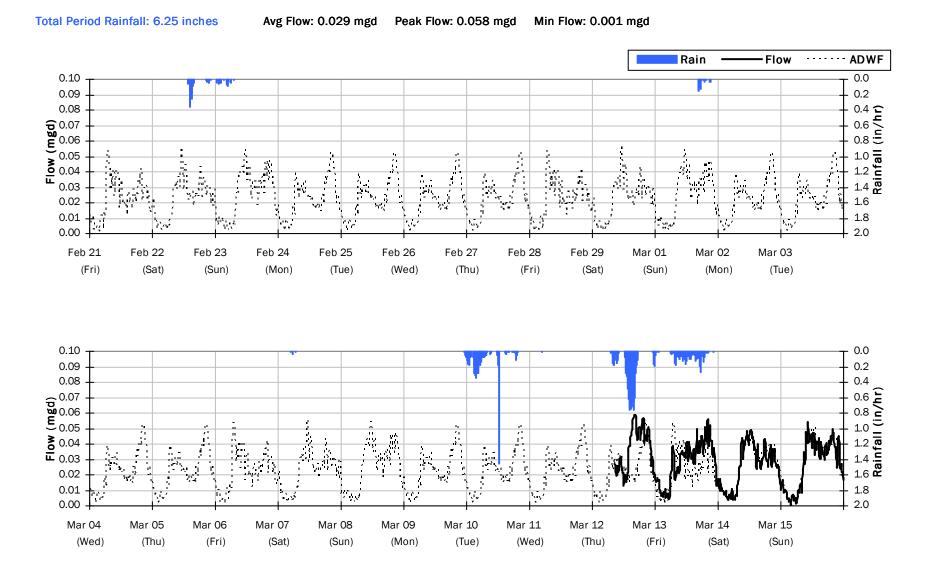
FM-13 Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.027 MGal Peak Daily Flow: 0.037 MGal Min Daily Flow: 0.023 MGal

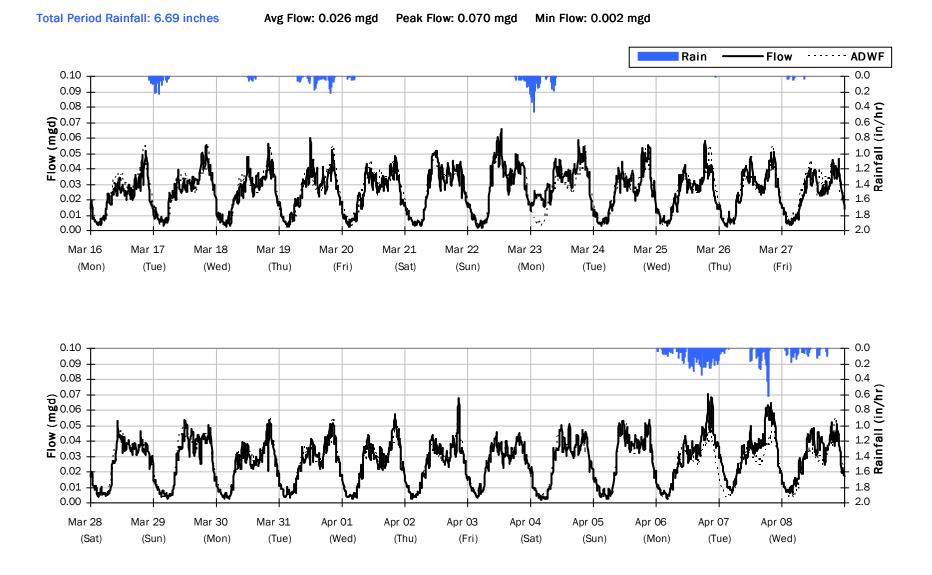
Total Period Rainfall: 10.42 inches



FM-13 Flow Summary: 2/21/2020 to 3/15/2020

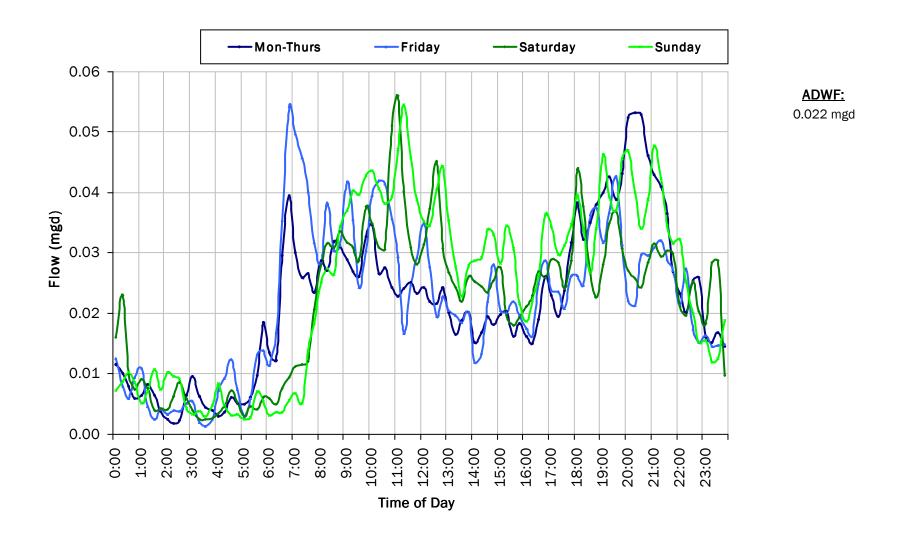


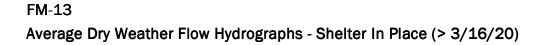
FM-13 Flow Summary: 3/16/2020 to 4/8/2020

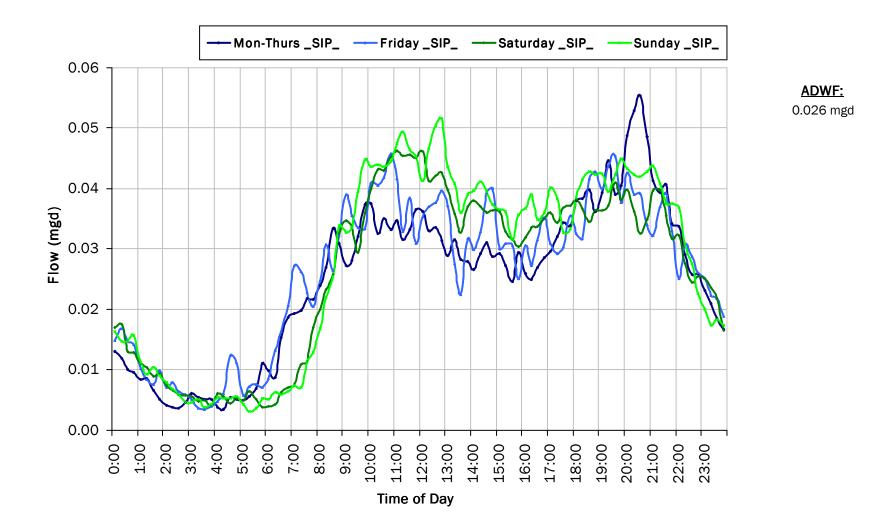


V&A | FM-13 - 5 465

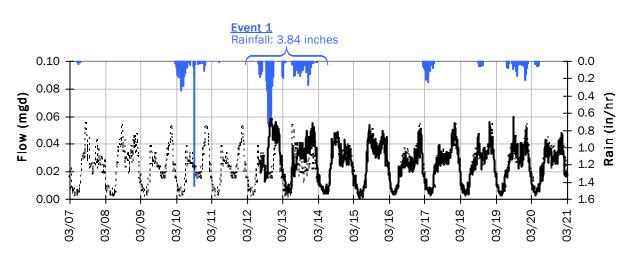
FM-13 Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



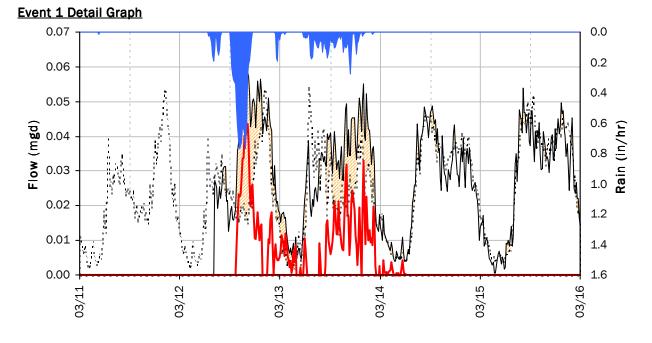




FM-13 I/I Summary: Event 1



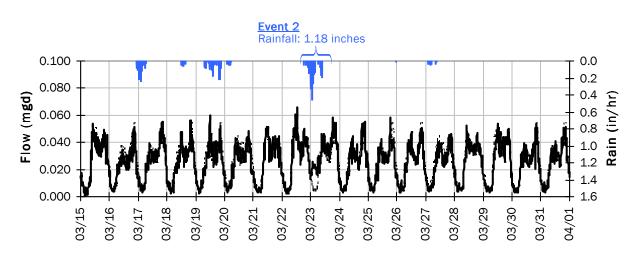
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



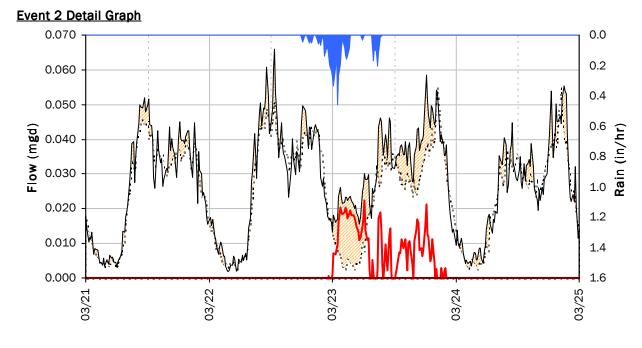
Storm Event I/I Analysis (Rain = 3.84 inches)

<u>Capacity</u>		Inflow / Infiltration		
Peak Flow: PF:	0.06 <i>mgd</i> 2.43	Peak I/I Rate: Total I/I:	0.04 mgd 13,000 gallons	
Peak Level:	in			

FM-13 I/I Summary: Event 2



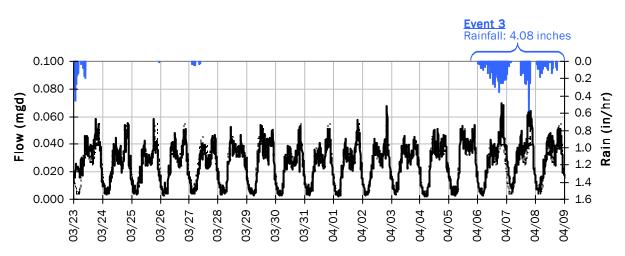
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Storm Event I/I Analysis (Rain = 1.18 inches)

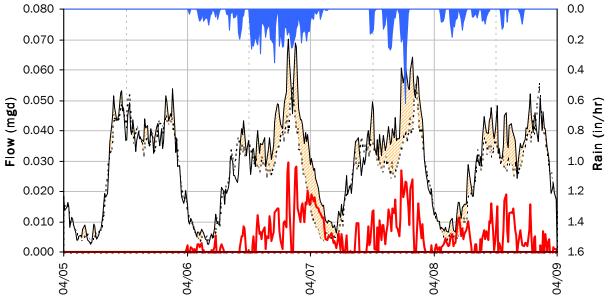
Capacity		Inflow / Infiltration	
Peak Flow:	0.06 mgd	Peak I/I Rate:	0.02 mgd
PF:	2.43	Total I/I:	8,000 gallons
Peak Level:	in		

FM-13 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 4.08 inches)

<u>Capacity</u>		Inflow / Infiltration		
Peak Flow: PF:	0.07 mgd 2.91	Peak I/I Rate: Total I/I:	0.03 mgd 15,000 gallons	
Peak Level: d/D Ratio:	in			

City of Beaumont

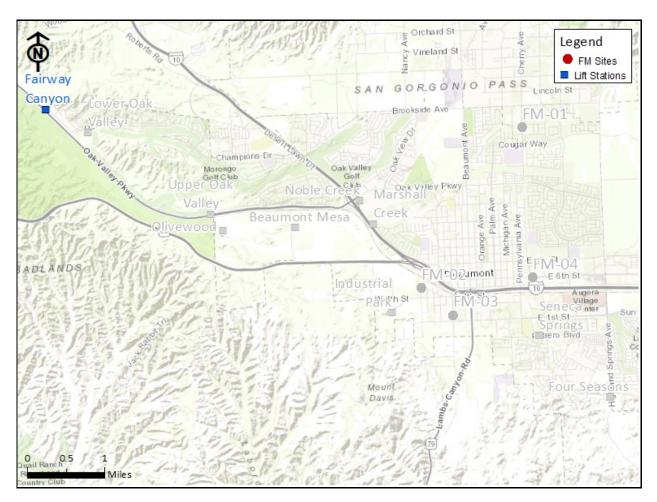
Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: FM-14

City Structure: Fairway Canyon LS

Location: Northwest end of Crenshaw Street

Data Summary Report



Vicinity Map: FM-14

FM-14

Site Information

City Structure: Fairway Canyon LS Coordinates: 117.0707 ° W, 33.9642 ° N Rim Elev: 2095 feet

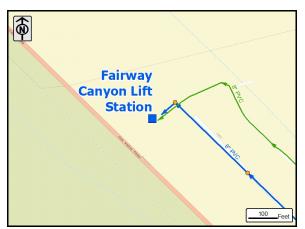
Location: Northwest end of Crenshaw Street

ADWF: 0.063 mgd

Peak Measured Flow: 0.123 mgd



Satellite Map



Sanitary Map

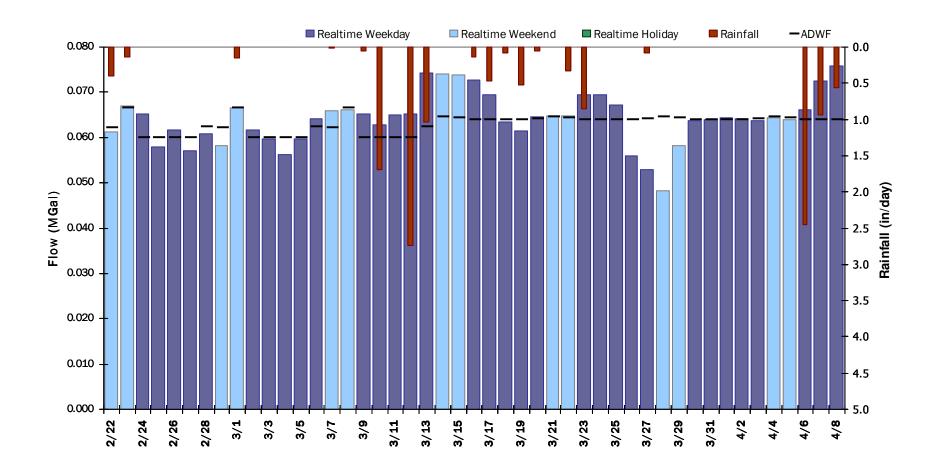


Street View

FM-14 Period Flow Summary: Daily Flow Totals

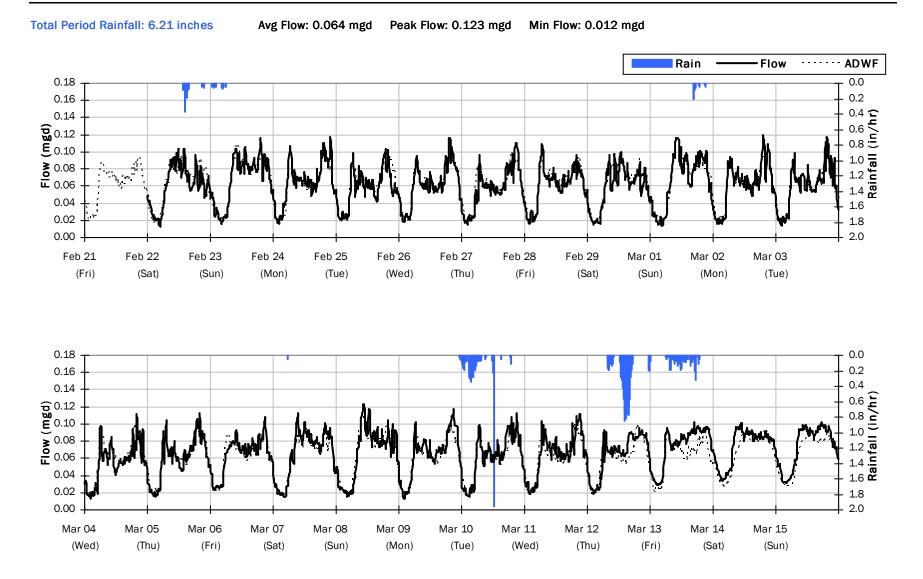
Avg Period Flow: 0.064 MGal Peak Daily Flow: 0.076 MGal Min Daily Flow: 0.048 MGal

Total Period Rainfall: 12.73 inches



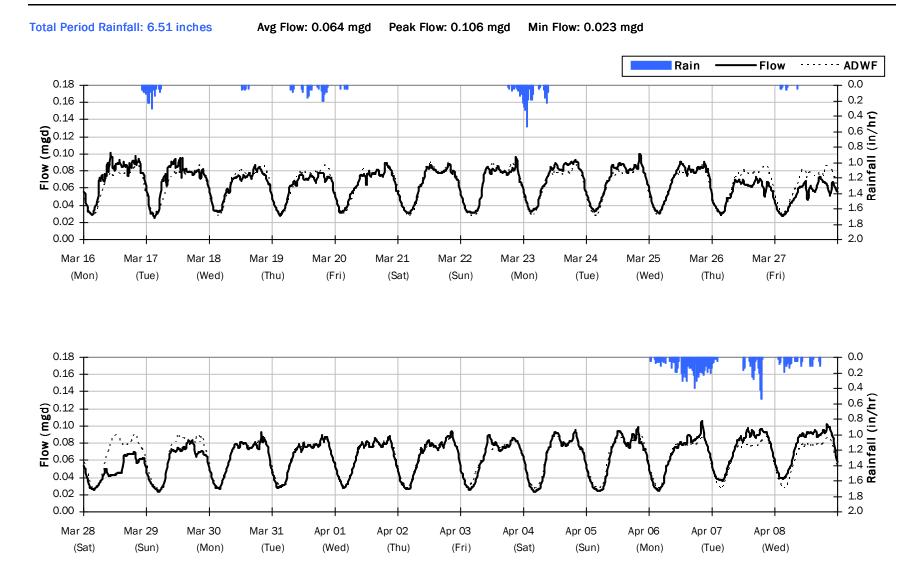
V&A | FM-14 - 3 473

FM-14 Flow Summary: 2/21/2020 to 3/15/2020

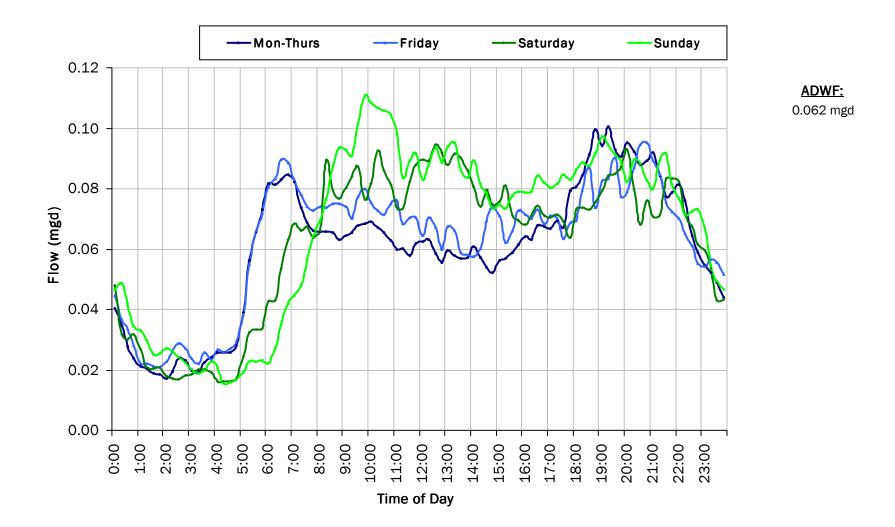


V&A | FM-14 - 4 474

FM-14 Flow Summary: 3/16/2020 to 4/8/2020

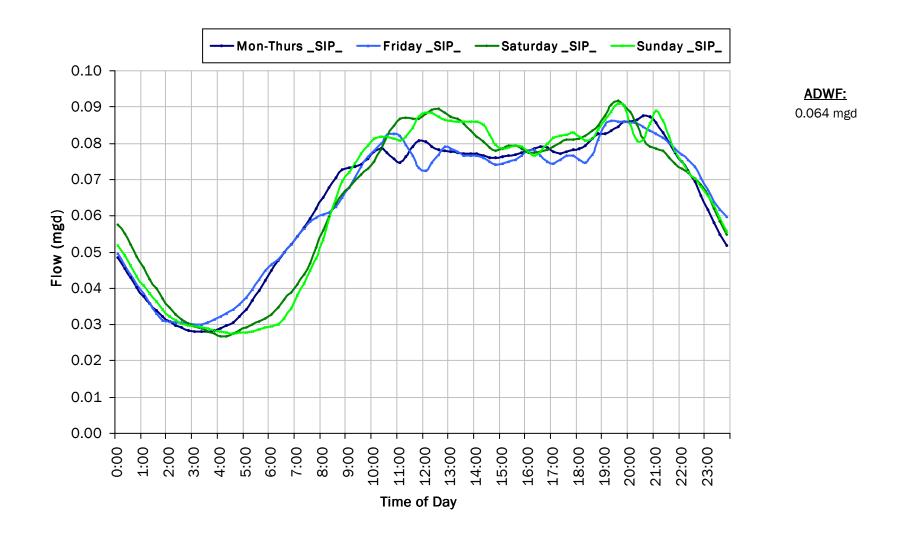






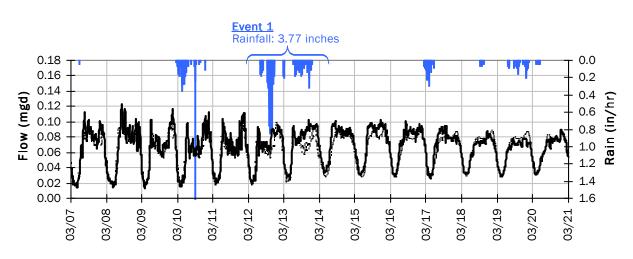
ltem 4.

FM-14 Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)

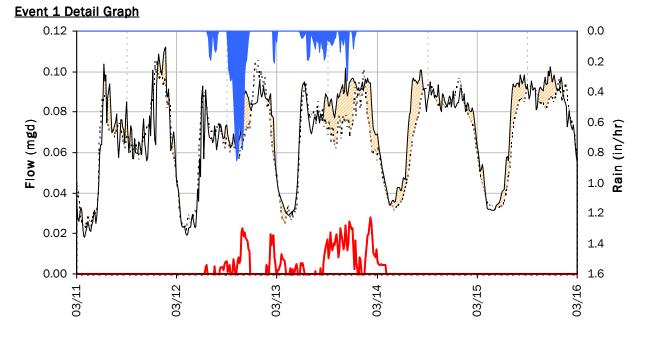


477

FM-14 I/I Summary: Event 1



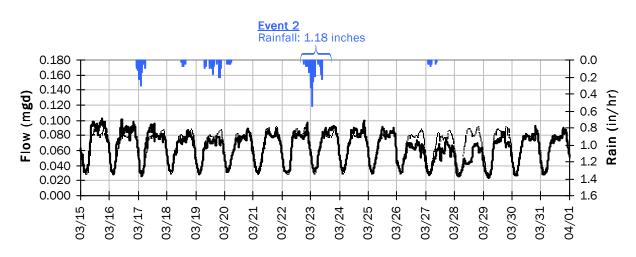
Baseline and Realtime Flows with Rainfall Data over Monitoring Period



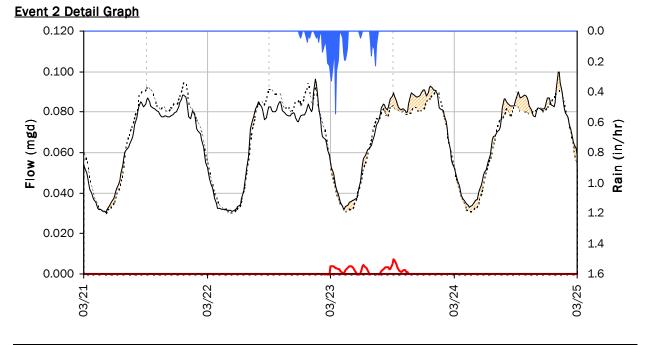
Storm Event I/I Analysis (Rain = 3.77 inches)

<u>Capacity</u>		Inflow / Infiltration		
Peak Flow: PF:	0.10 mgd 1.62	Peak I/I Rate: Total I/I:	0.03 mgd 9,000 gallons	
Peak Level: d/D Ratio:	in			

FM-14 I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

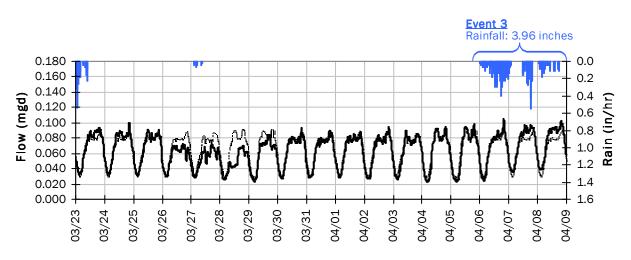


Storm Event I/I Analysis (Rain = 1.18 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.09 <i>mgd</i> 1.42	Peak I/I Rate: Total I/I:	0.01 mgd 1,000 gallons
Peak Level: d/D Ratio:	in		

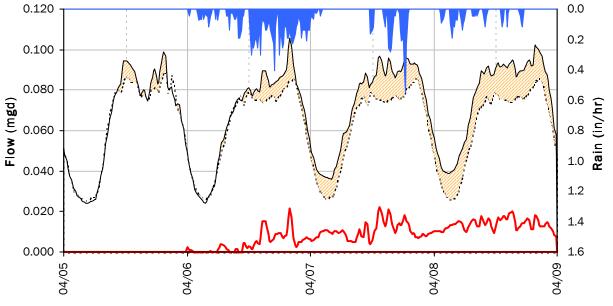
| FM-14 - 9

FM-14 I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 3.96 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	0.11 mgd 1.68	Peak I/I Rate: Total I/I:	0.02 mgd 28,000 gallons
Peak Level: d/D Ratio:	in		

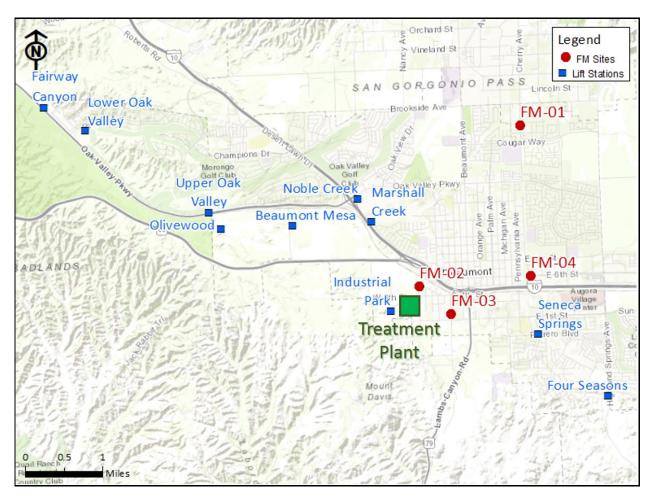
City of Beaumont

Sanitary Sewer Flow Monitoring February 20 - April 09, 2020

Monitoring Site: WWTP

Location: Wastewater Treatment Plant

Data Summary Report

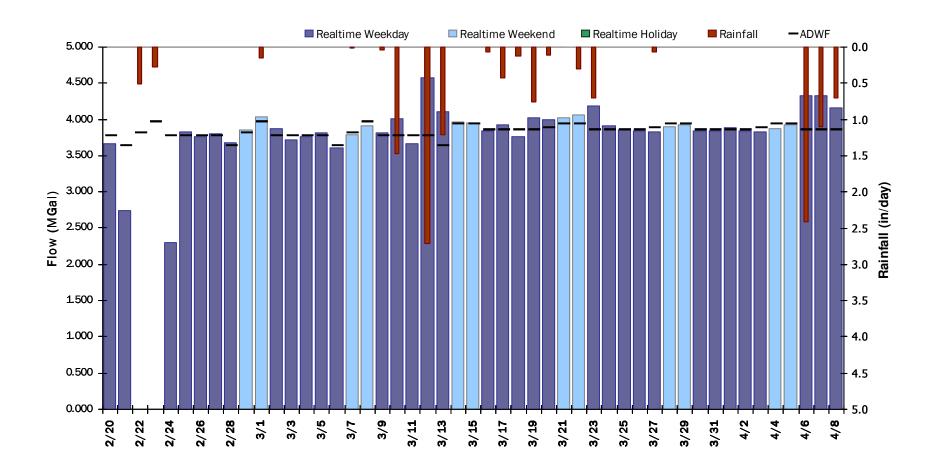


Vicinity Map: WWTP

WWTP Period Flow Summary: Daily Flow Totals

Avg Period Flow: 3.696 MGal Peak Daily Flow: 4.570 MGal Min Daily Flow: 0.000 MGal

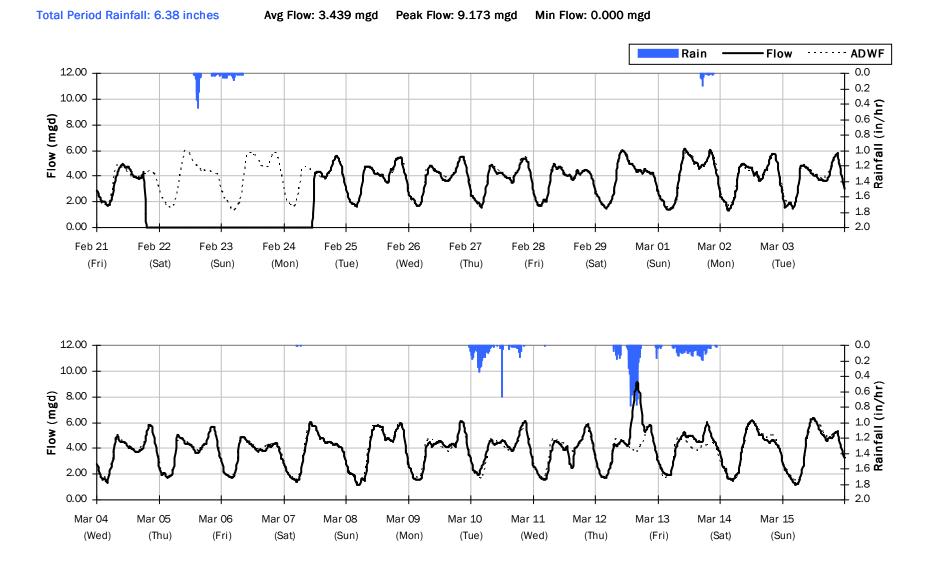
Total Period Rainfall: 13.17 inches



V&A | WWTP-2 482

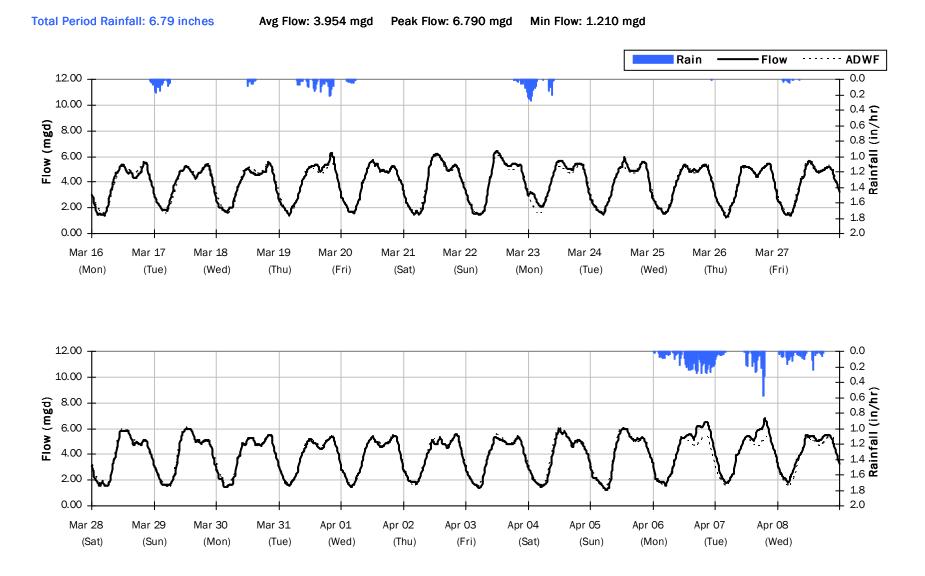
WWTP

Flow Summary: 2/21/2020 to 3/15/2020

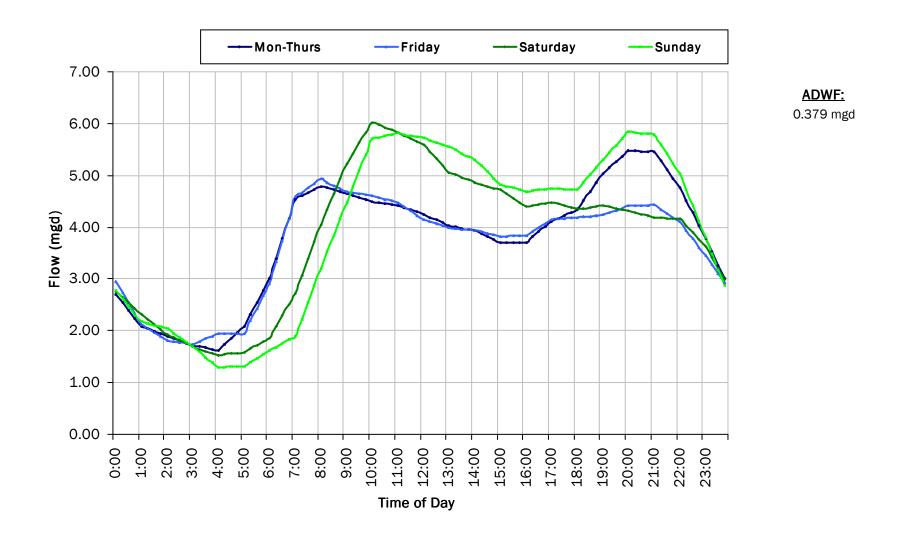


WWTP

Flow Summary: 3/16/2020 to 4/8/2020

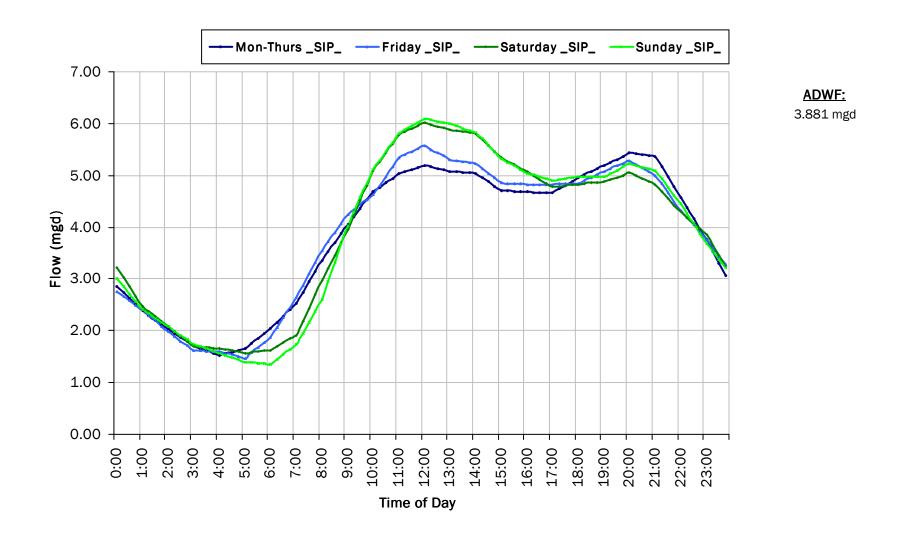


WWTP Average Dry Weather Flow Hydrographs - Pre Shelter-In-Place (< 03/14/20)



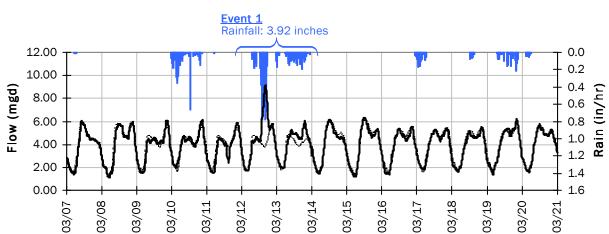
485

WWTP Average Dry Weather Flow Hydrographs - Shelter In Place (> 3/16/20)



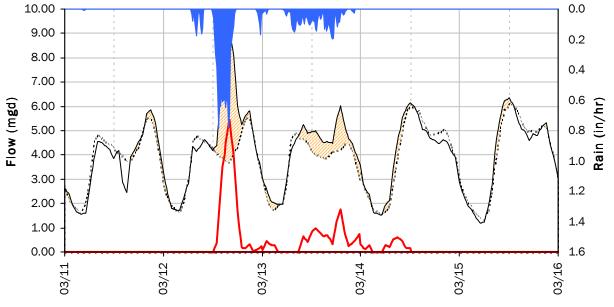
486

WWTP I/I Summary: Event 1



Baseline and Realtime Flows with Rainfall Data over Monitoring Period



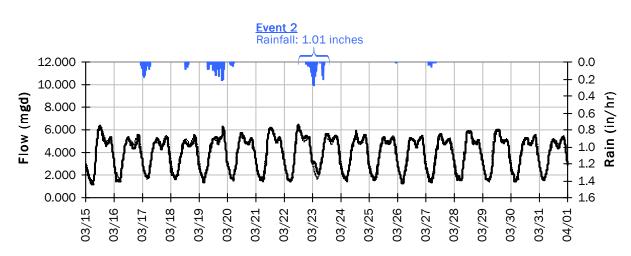


Storm Event I/I Analysis (Rain = 3.92 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	9.17 mgd 2.39	Peak I/I Rate: Total I/I:	5.47 mgd 1,385,000 gallons
Peak Level:	in		

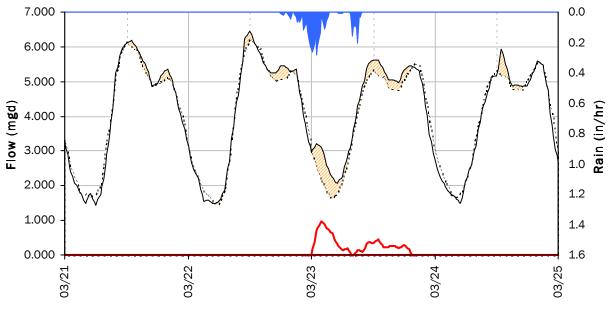
Peak Level: d/D Ratio:

WWTP I/I Summary: Event 2



Baseline and Realtime Flows with Rainfall Data over Monitoring Period

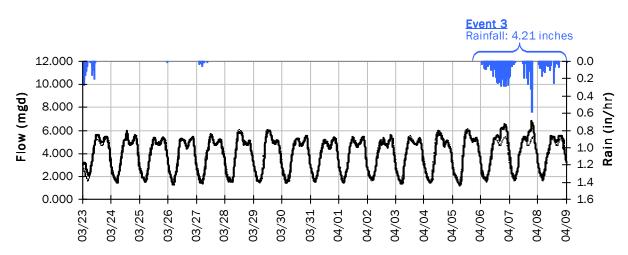




Storm Event I/I Analysis (Rain = 1.01 inches)

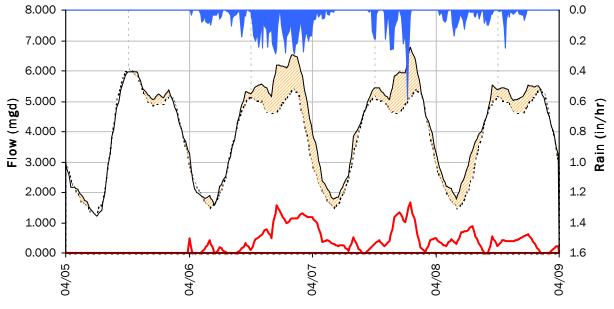
<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	5.63 mgd 1.47	Peak I/I Rate: Total I/I:	0.97 mgd 258,000 gallons
Peak Level: d/D Ratio:	in		

WWTP I/I Summary: Event 3



Baseline and Realtime Flows with Rainfall Data over Monitoring Period





Storm Event I/I Analysis (Rain = 4.21 inches)

<u>Capacity</u>		Inflow / Infiltration	
Peak Flow: PF:	6.79 mgd 1.77	Peak I/I Rate: Total I/I:	1.66 mgd 1,396,000 gallons
Peak Level:	in		

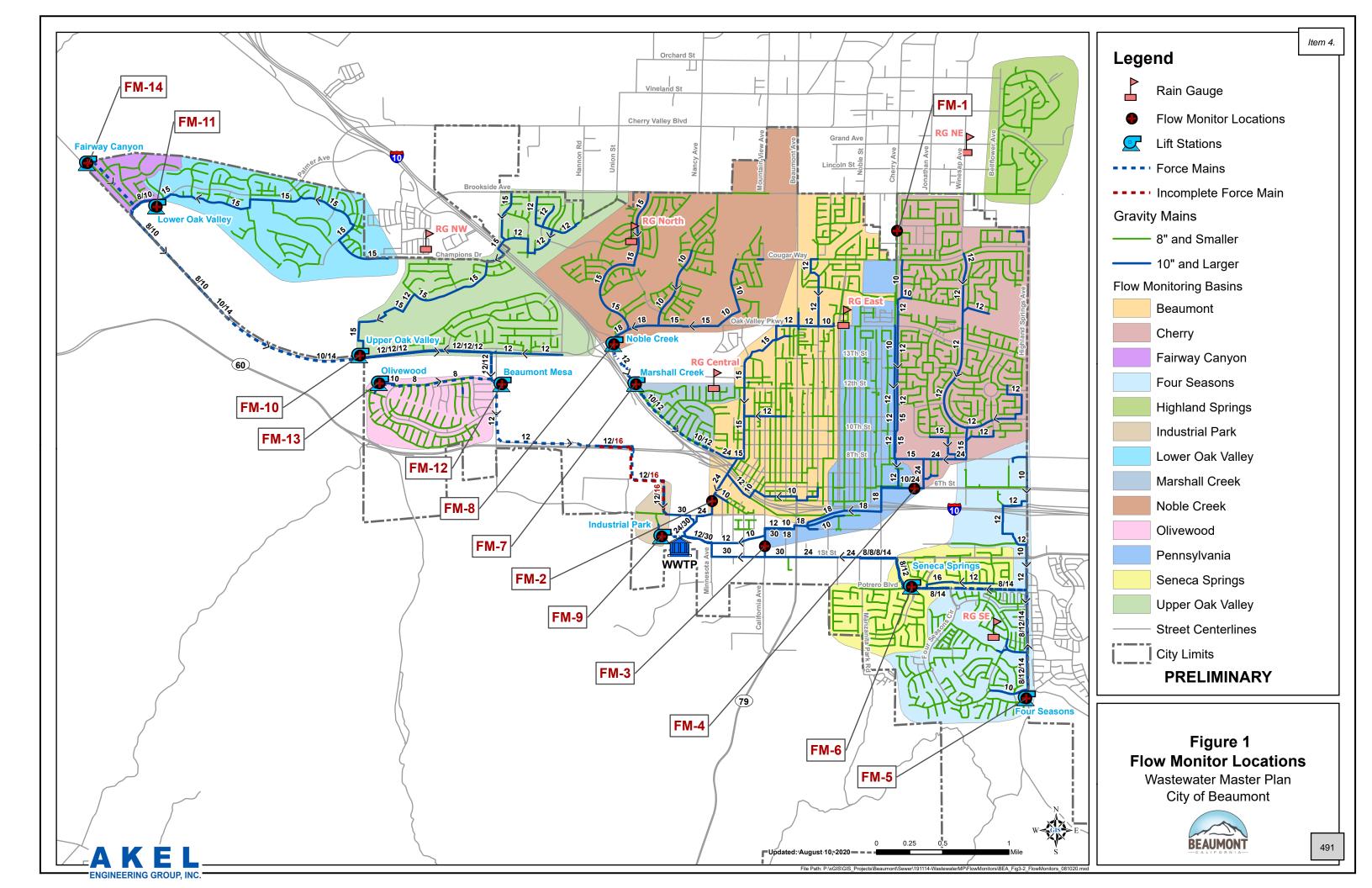
Peak Level: d/D Ratio:

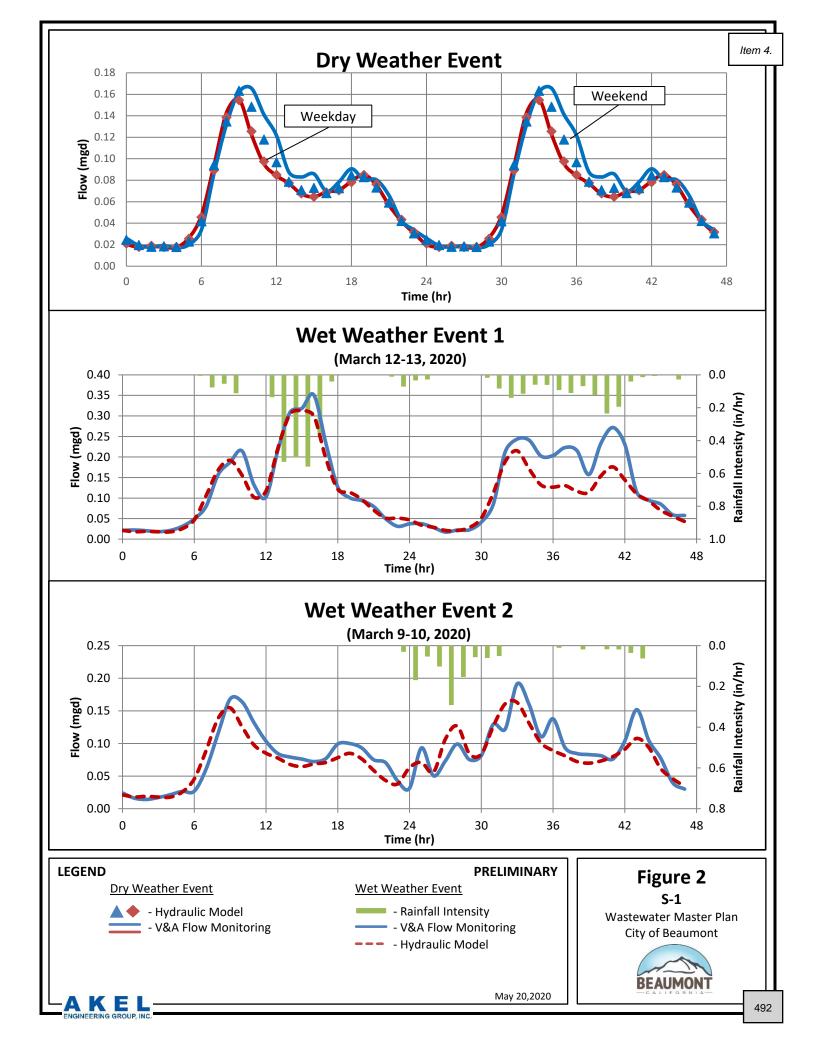


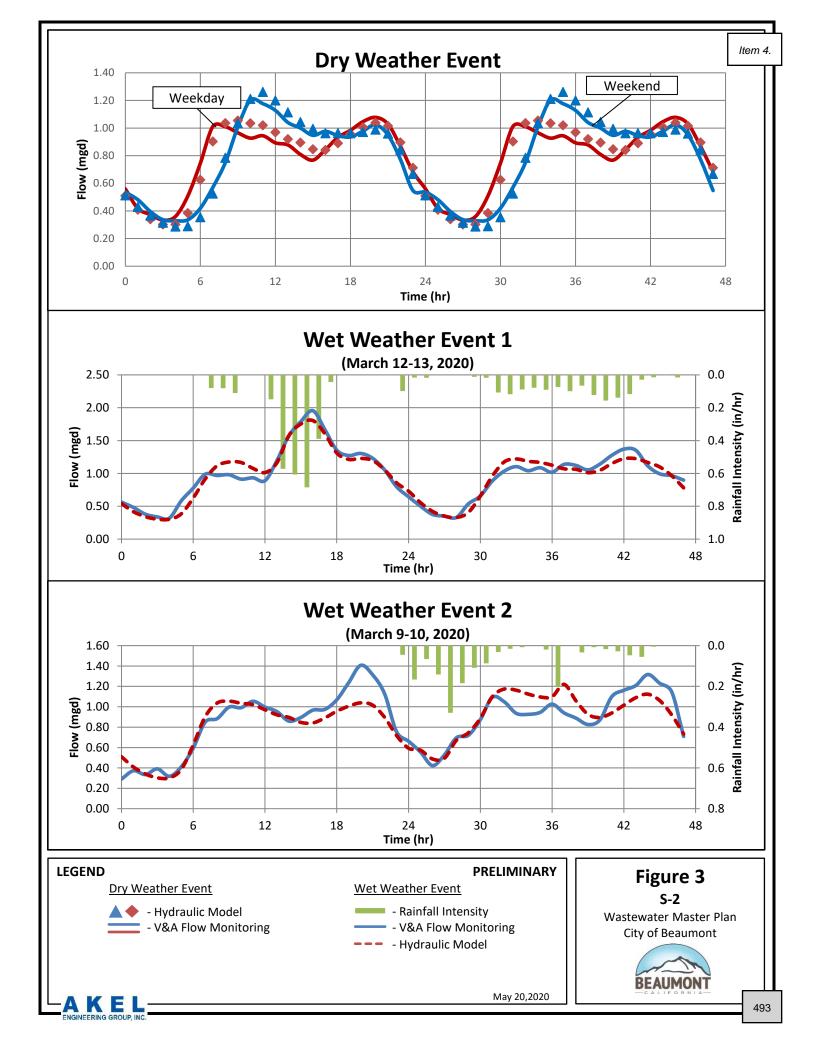
APPENDIX B

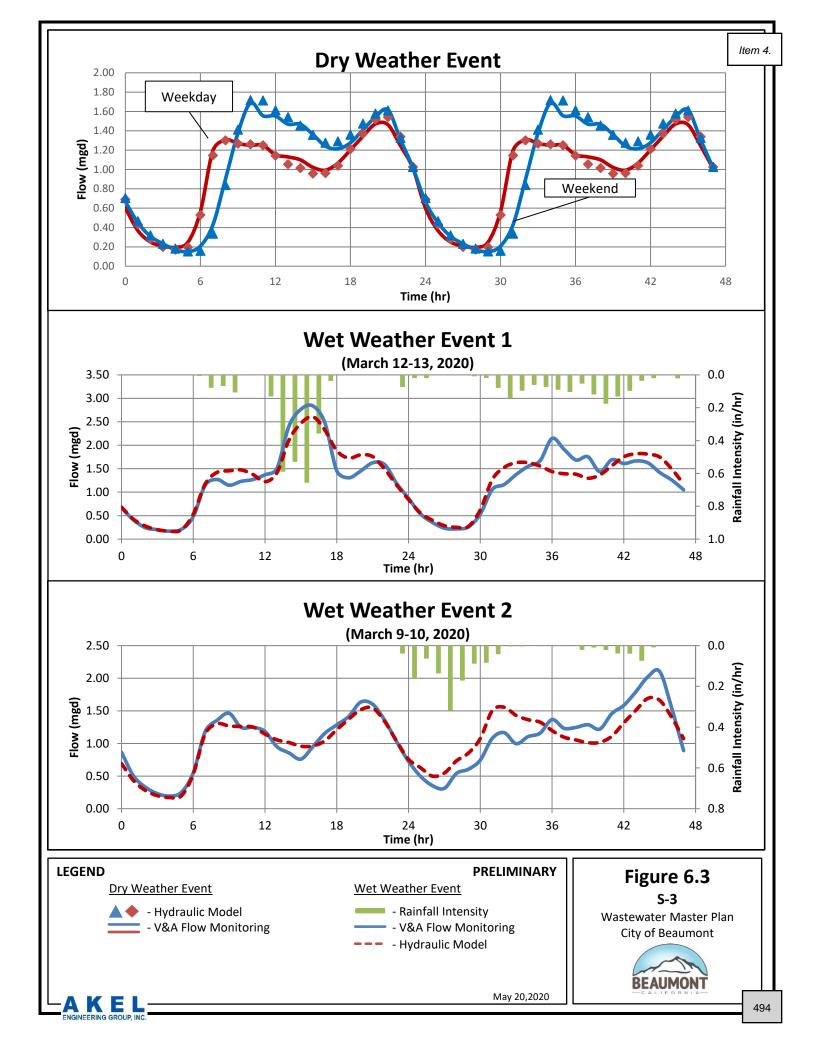
Hydraulic Model Calibration Exhibits

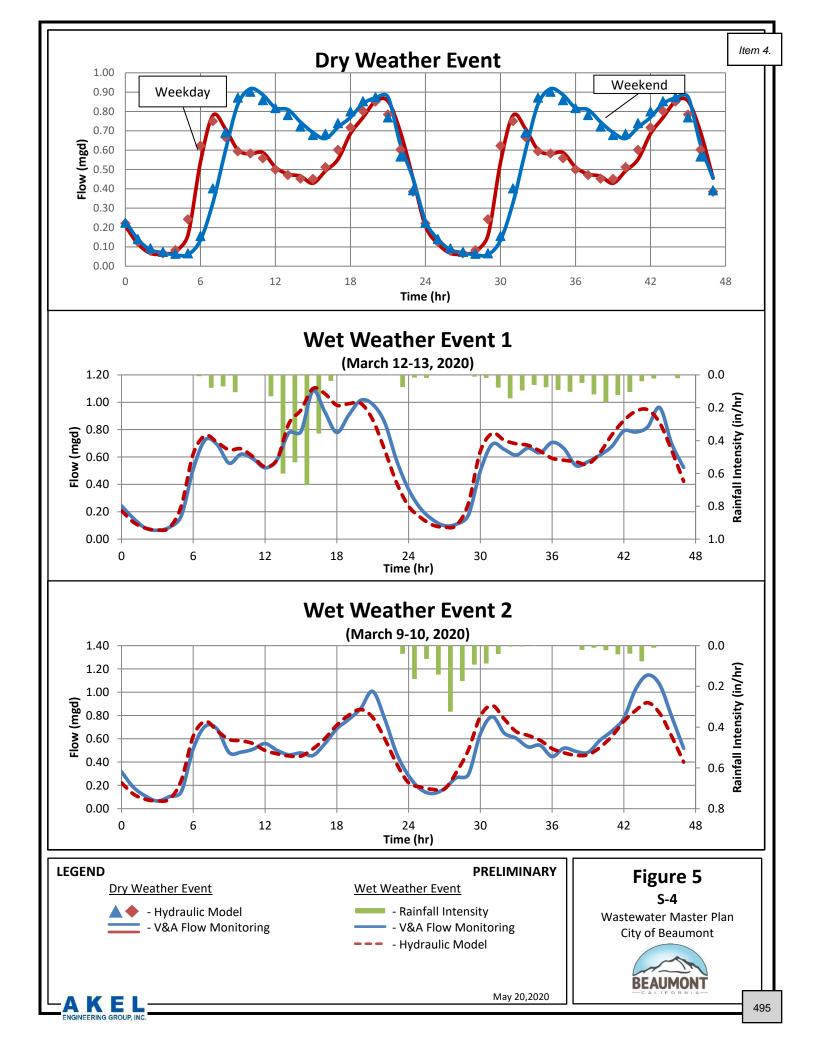
490

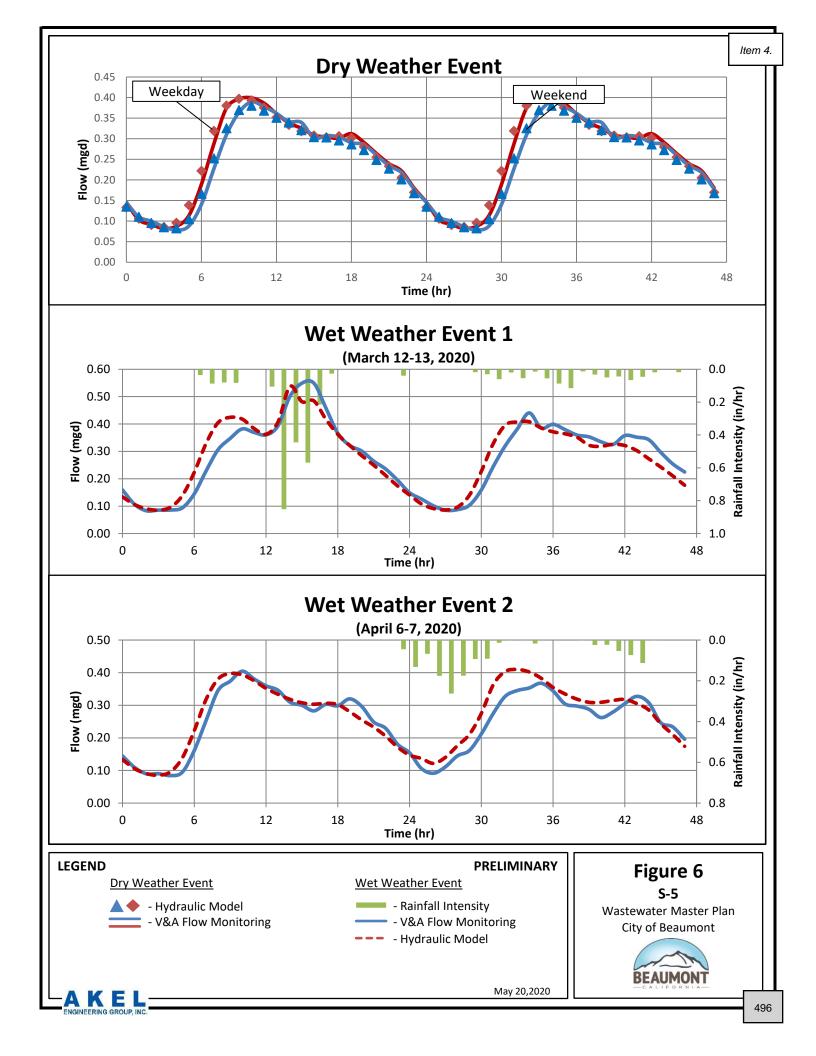


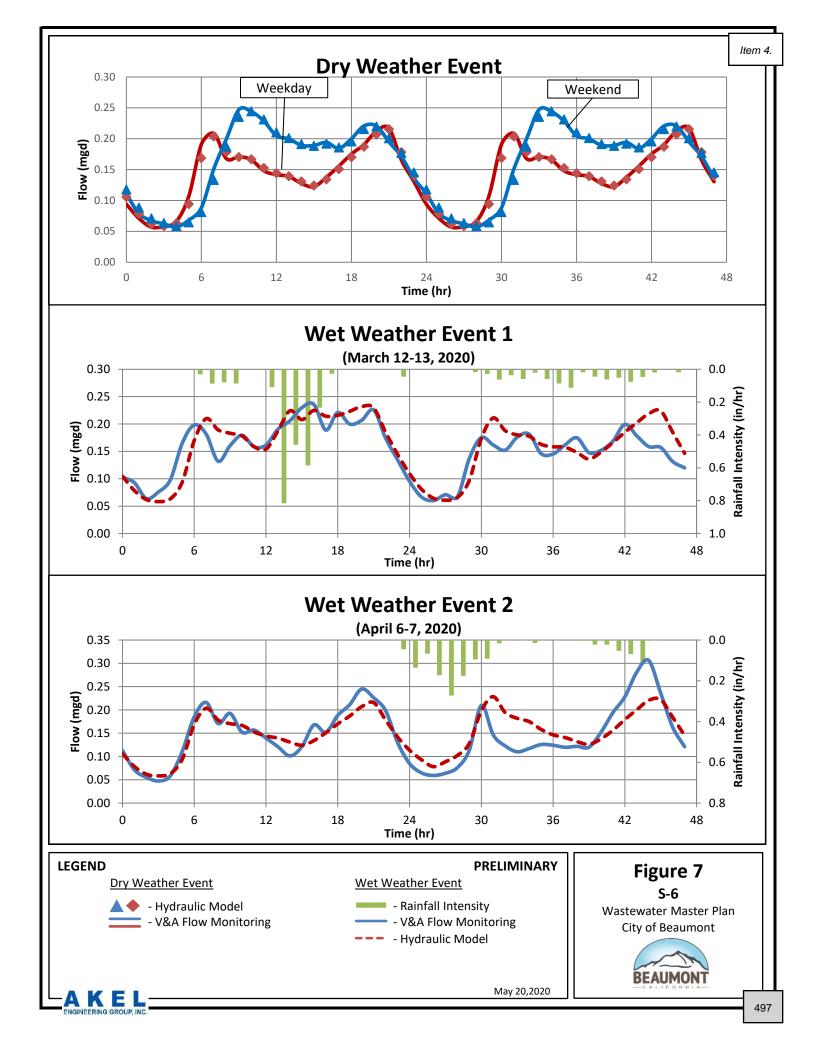


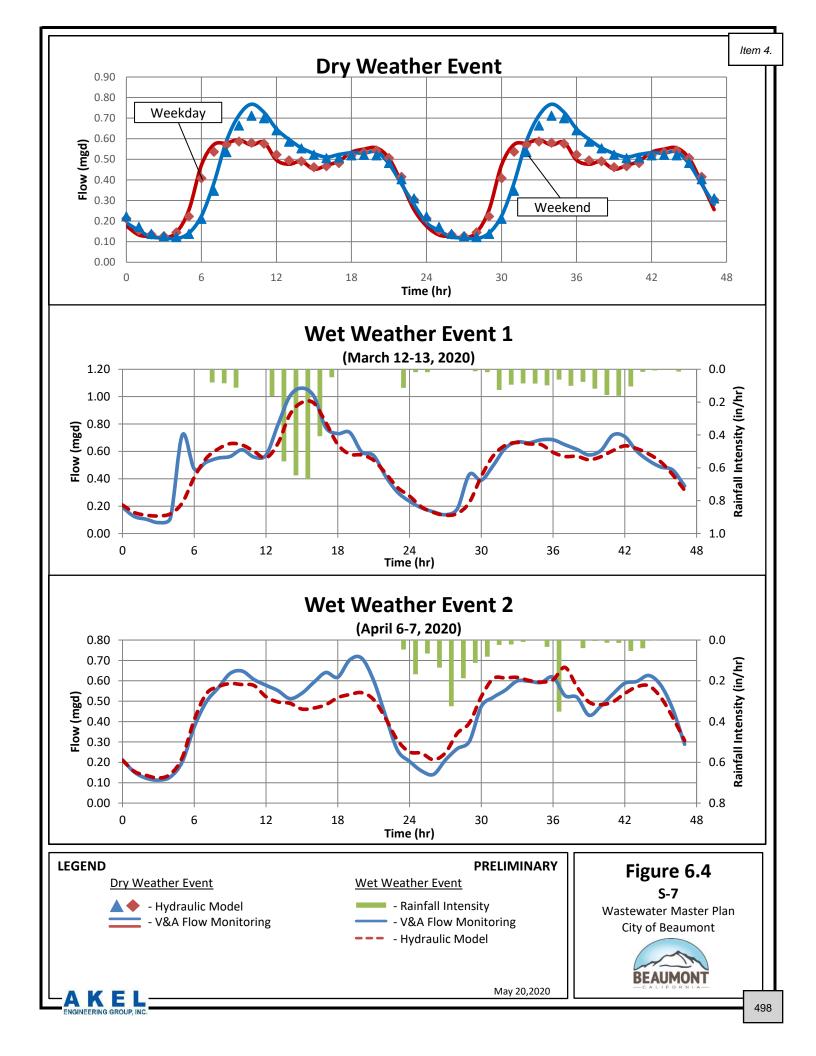


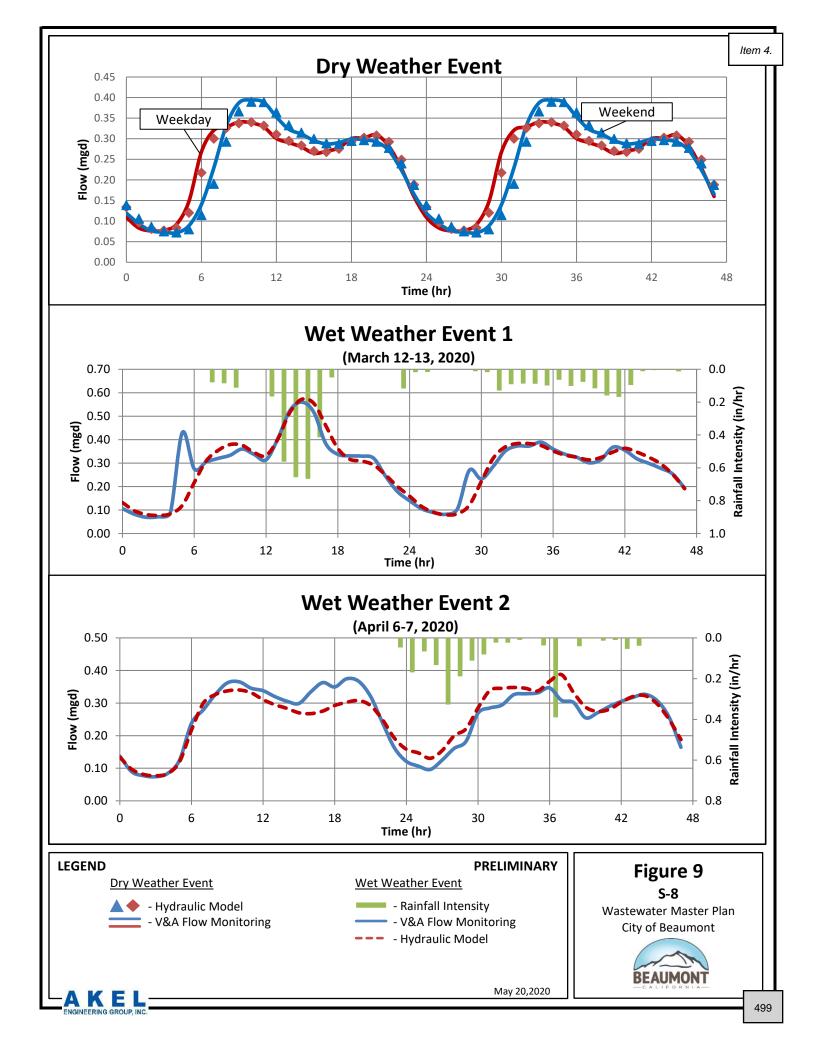


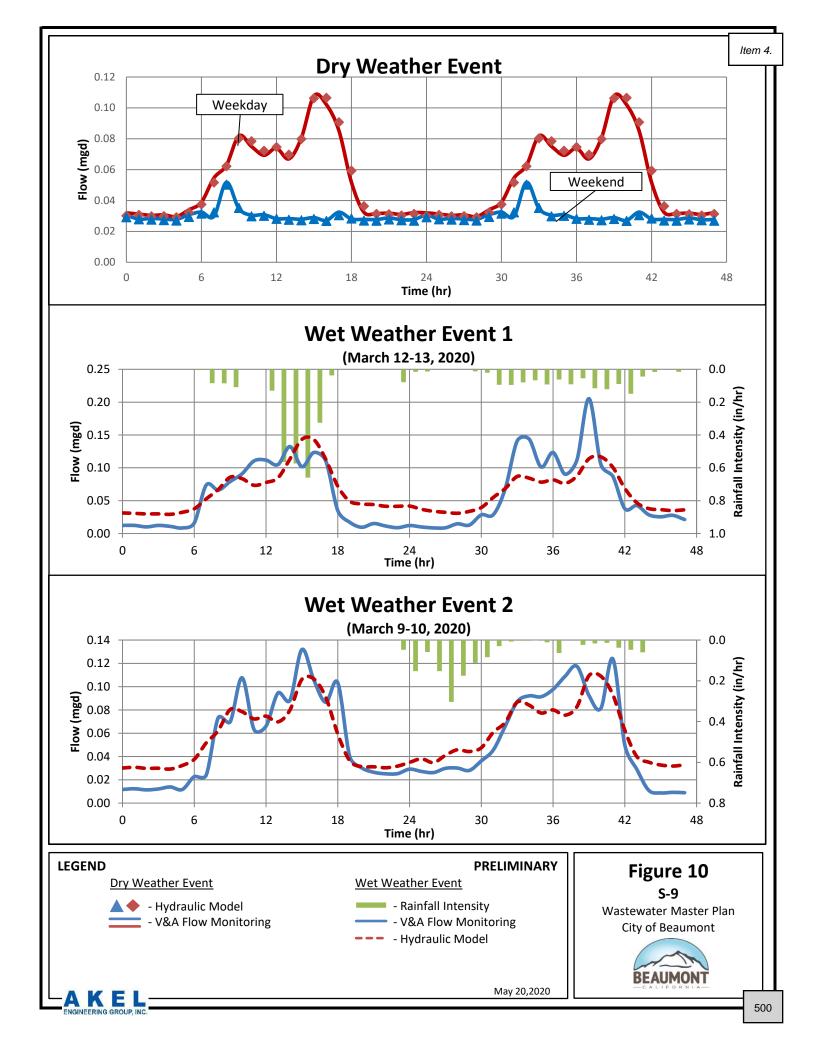


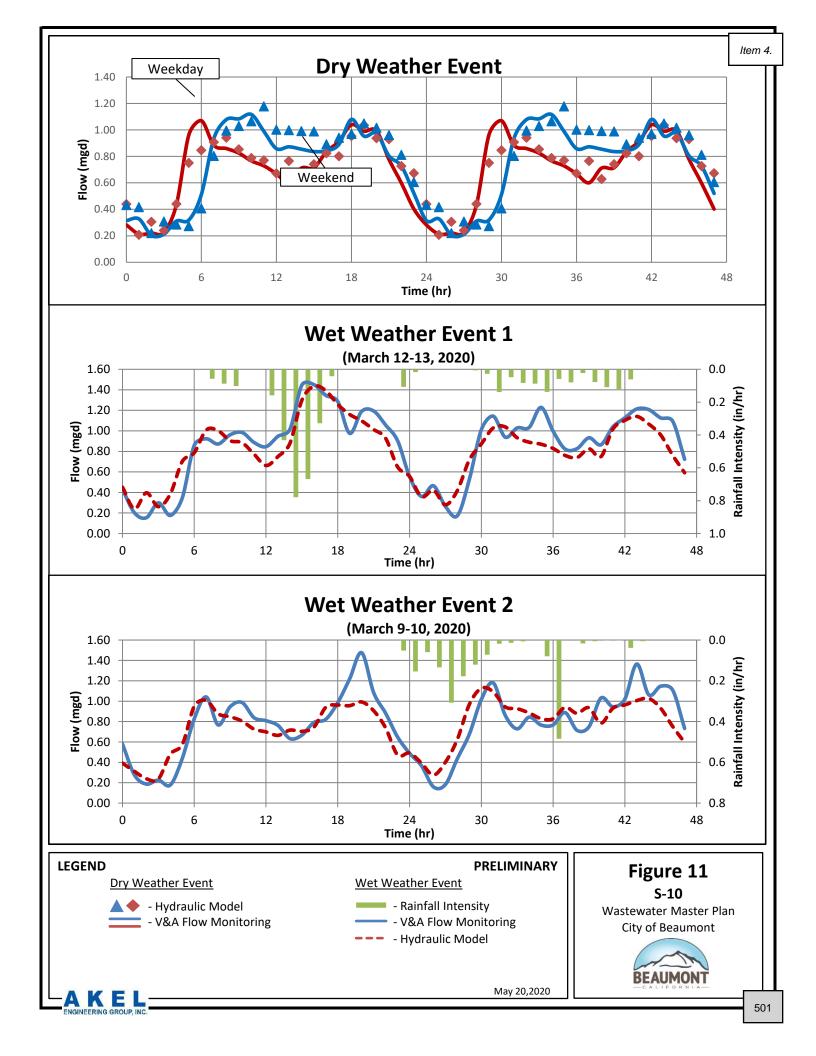


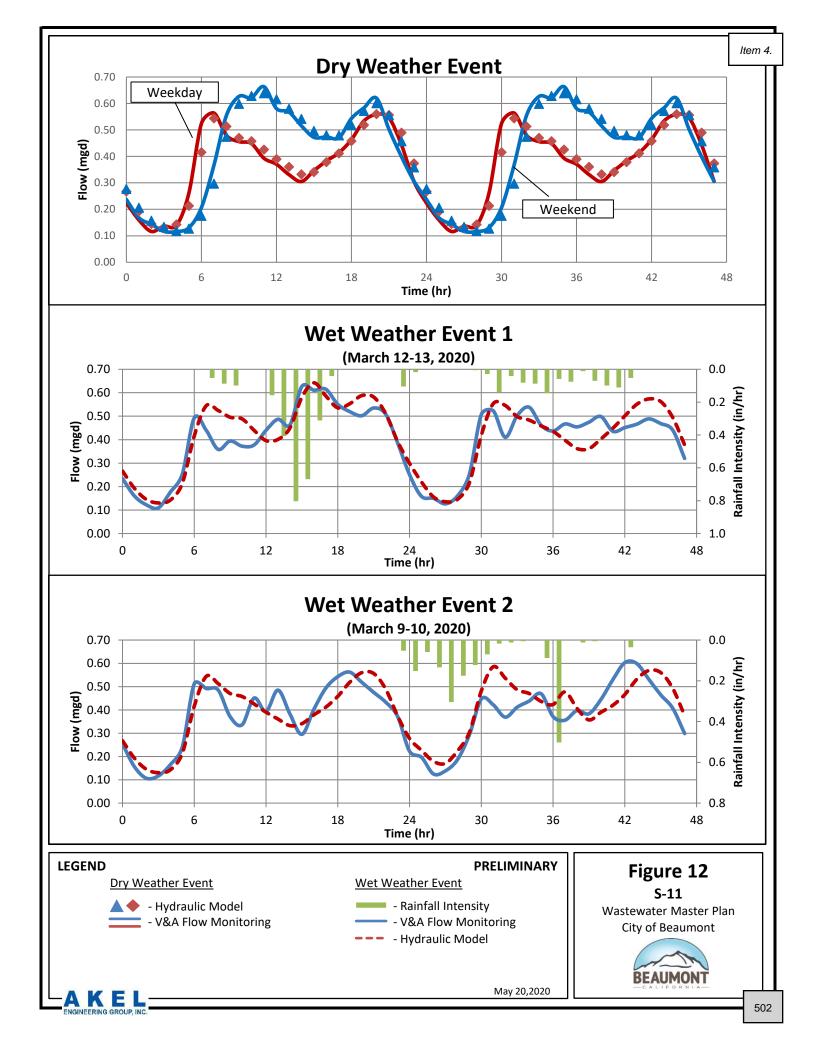


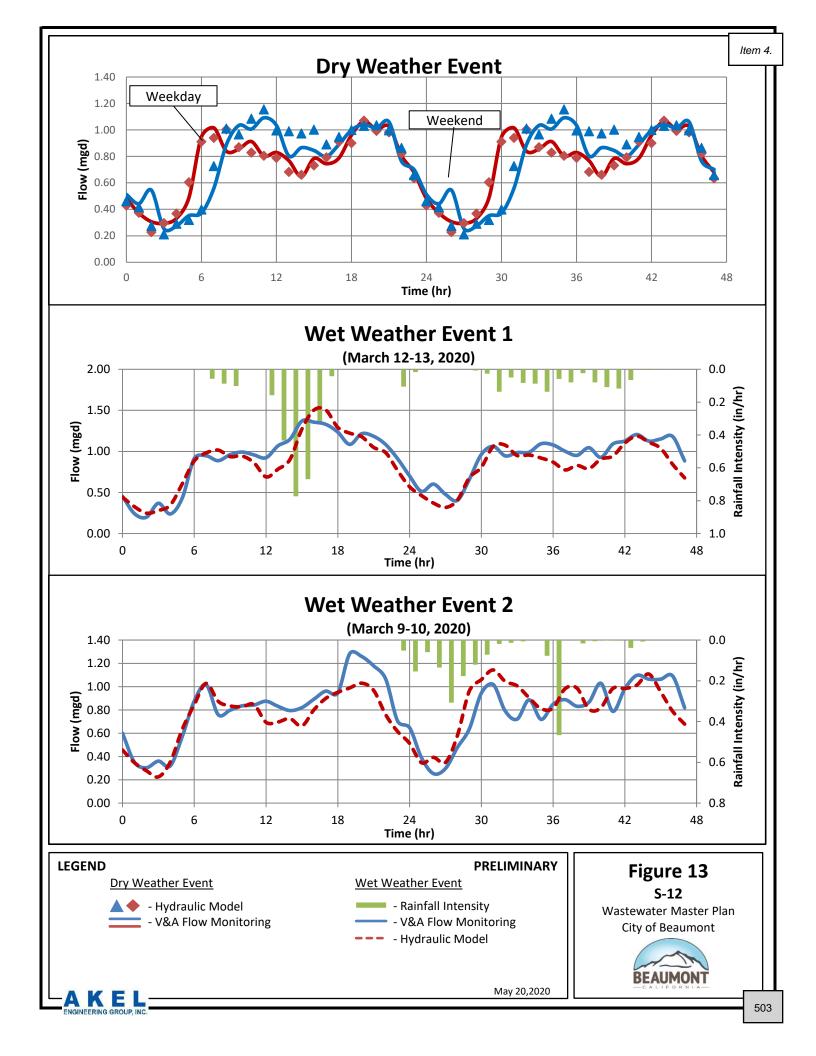


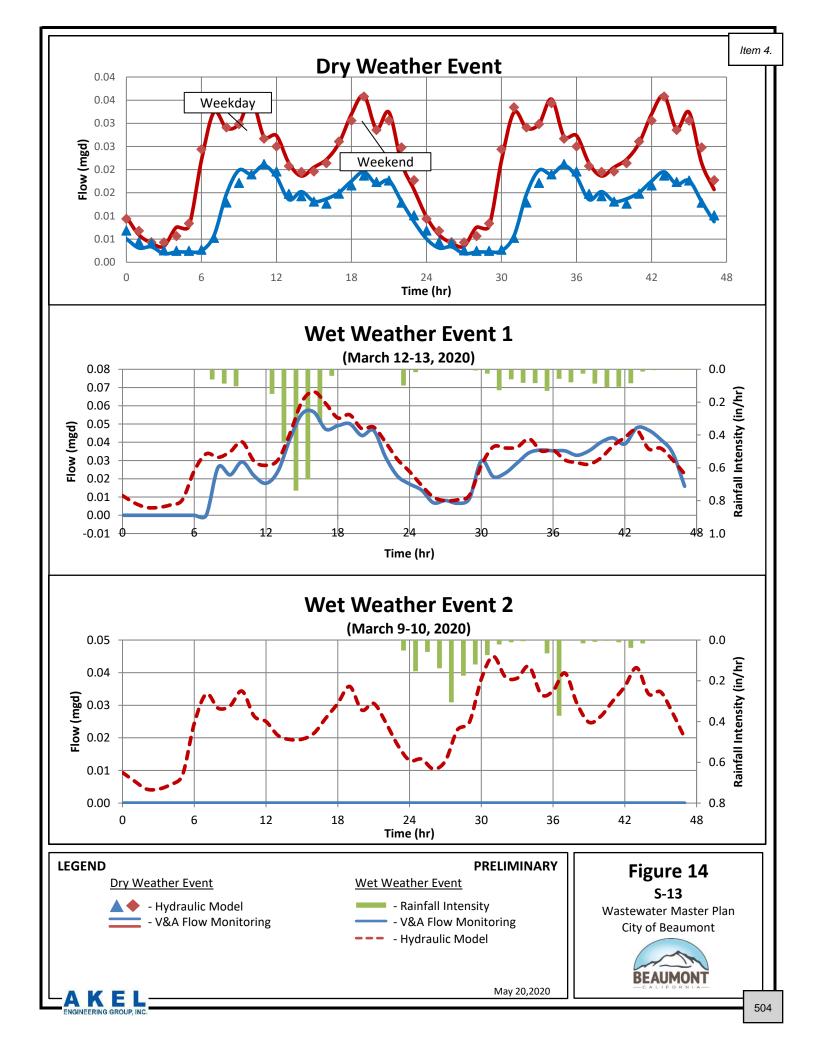


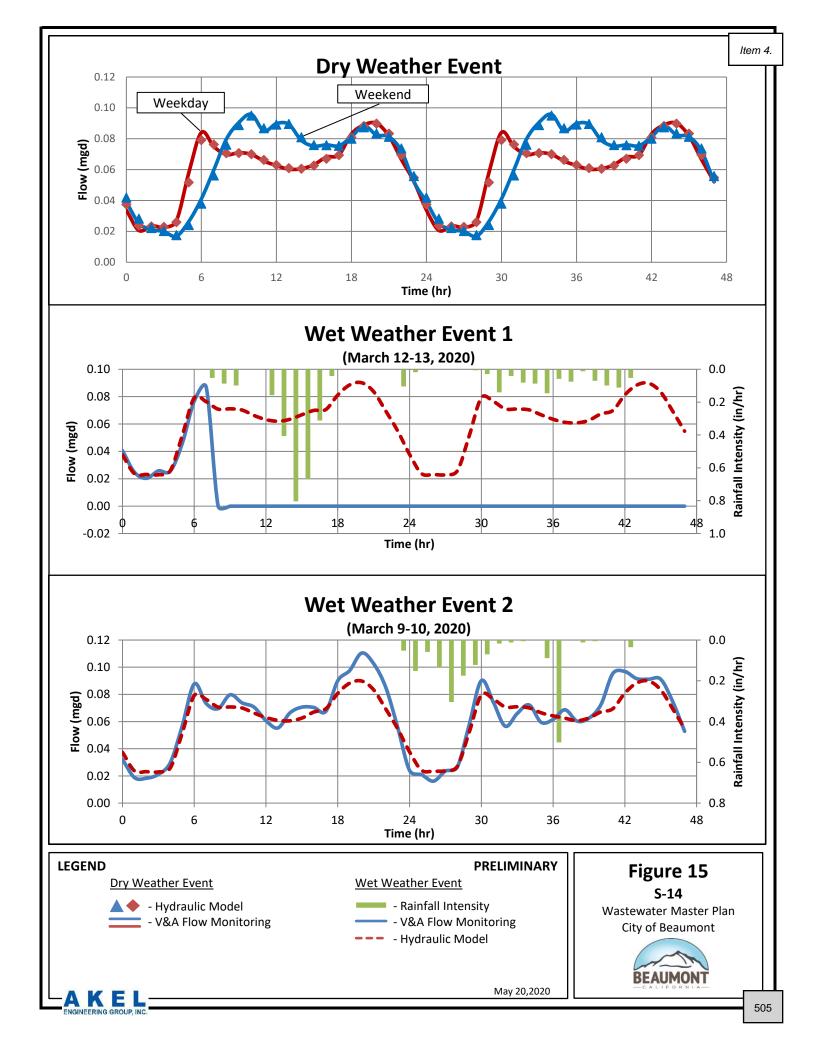








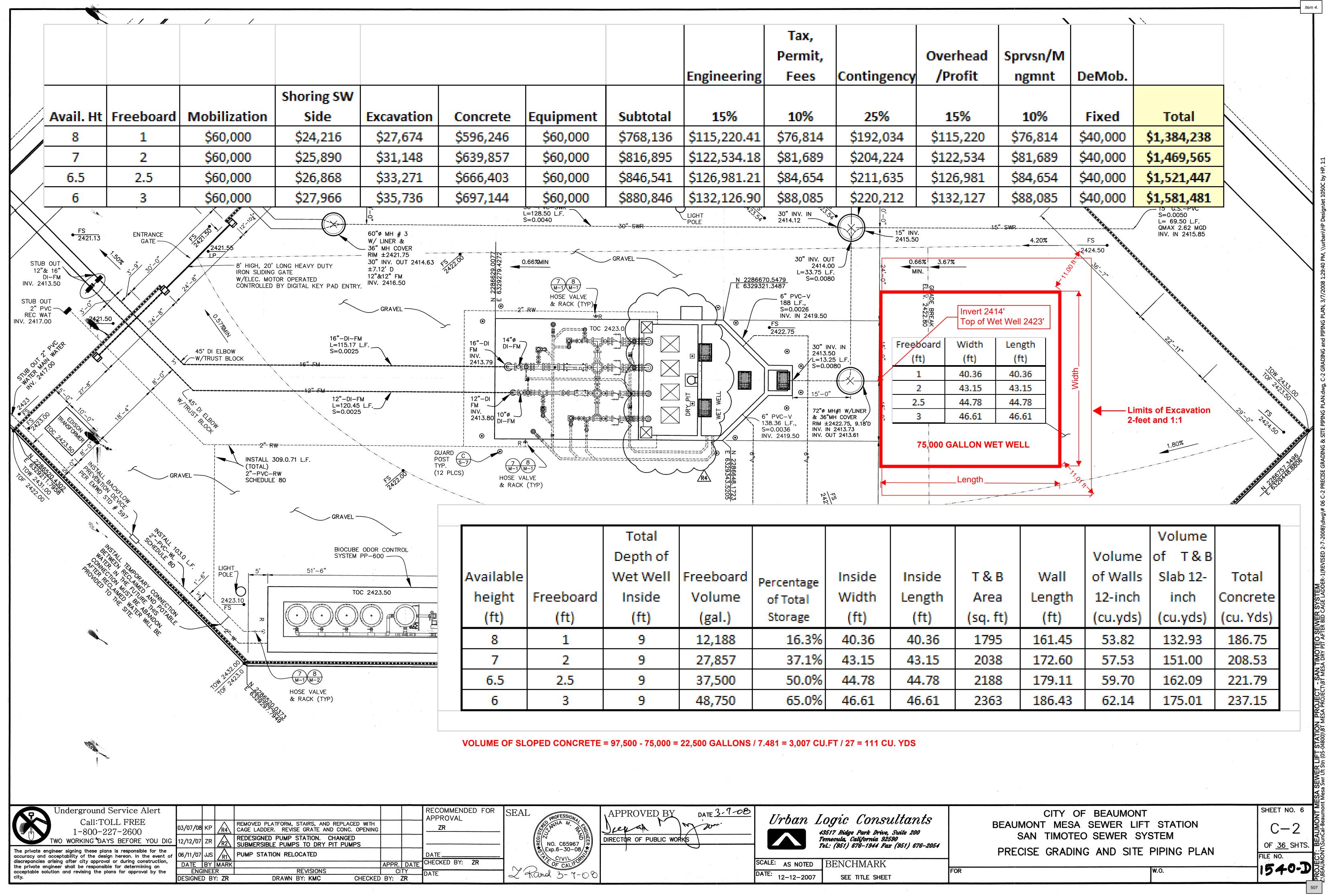






APPENDIX C

Beaumont Mesa Lift Station Dry Well Grading Plan – Prepared by Cannon



					Tax,	
					Permit,	
				Engineering	Fees	Contingency
n	Concrete	Equipment	Subtotal	15%	10%	25%
	\$596,246	\$60,000	\$768,136	\$115,220.41	\$76,814	\$192,034
	\$639,857	\$60,000	\$816,895	\$122,534.18	\$81,689	\$204,224
	\$666,403	\$60,000	\$846,541	\$126,981.21	\$84,654	\$211,635
	\$697,144	\$60,000	\$880,846	\$132,126.90	\$88,085	\$220,212
		L=128.50 L.F. S=0.0040		LIGHT	30" INV. IN '5"	0,-0
			30 "- SWR			15" INV 2415.50
67	£5 22.00 45122	D.66%MIN	GRAVEL		30" INV. OUT	0.6
63	279.427			N 228667	2414.00 L=33.75 L.F.	
	E 6329	HOSE VALVE		$\bigvee \qquad \qquad$	1.3487 6" PVC-V	
	<u> </u>	& RACK (TYP)	{, [188 L.F., S=0.0026 INV. IN 2419.50	
			2423.0		FS 2422.75	
	16"-DI 14"Ø - FM DI-FM INV.				 30" INV 2413.50 	
-	2413.79				L=13.25 S=0.008	
					● 15'-0"	
	12"-DI FM INV. 10"ø			DRY PIT	• 72"ø MH	
	2413.80 DI-FM				=0.0036 INV. IN 2	22.75, 9.18'D
					IV. 2419.50 INV. OUT	2413.61
P(T)	UARD C OST S-7 YP.	8 M-1)			°9 	
(1	2 PLCS)					

			Total								Volume	
1.1			Depth of							Volume	of T&B	
-	Available		Wet Well	Freeboard	Percentage	Inside	Inside	т&В	Wall	of Walls	Slab 12-	Total
	height	Freeboard	Inside	Volume	of Total	Width	Length	Area	Length	12-inch	inch	Concrete
	(ft)	(ft)	(ft)	(gal.)	Storage	(ft)	(ft)	(sq. ft)	(ft)	(cu.yds)	(cu.yds)	(cu. Yds)
	8	1	9	12,188	16.3%	40.36	40.36	1795	161.45	53.82	132.93	186.75
	7	2	9	27,857	37.1%	43.15	43.15	2038	172.60	57.53	151.00	208.53
	6.5	2.5	9	37,500	50.0%	44.78	44.78	2188	179.11	59.70	162.09	221.79
	6	3	9	48,750	65.0%	46.61	46.61	2363	186.43	62.14	175.01	237.15

200 200) 676-2054	BEAUMONT MESA SEWER LIFT STATION SAN TIMOTEO SEWER SYSTEM PRECISE GRADING AND SITE PIPING PLAN	SHEET NO. 6 C-2 OF <u>36</u> SHTS. TILE NO. 540-D	COLECT: BEAUMONT ME
			507



APPENDIX D

Beaumont Mesa Force Main Pothole Report – Prepared by C-Below

Utility Locating Radiography Potholing Mapping GPR



Date: Technician: Project Name: Project Address: C Below Project No. October 3, 2020 Jacob Bankston City of Beaumont/Force main Pothole Report Potrero Blvd & Western Knolls Ave. Beaumont, CA 92223 20-2491 Item 4.

www.cbelow.com

1-888-90-BELOW

14280 Euclid Ave. Chino, CA 91710



Date:October 3, 2020Technician:Jacob BankstonProject Name:City of Beaumont/Force main Pothole ReportProject Address:Potrero Blvd & Western Knolls Ave. Beaumont, CA 92223C Below Project No.20-2491

Project Summary

No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
ST1	Sewer	12	Plastic	7.28	NE-SW	West Bound on Western Knolls Ave., South West of Property 1280	Soil
ST2	Sewer	12	Plastic	6.03	E-W	West of 630 Nicholas Rd. in Field	Soil
ST2.1	Sewer	16	Plastic	5.70	E-W	West of 630 Nicholas Rd. in Field	Soil

Comments: Top depth is measured from ground surface to top of utility. Potholes were performed at locations specified by the client. Utility size and material are based on visual estimates and may vary.

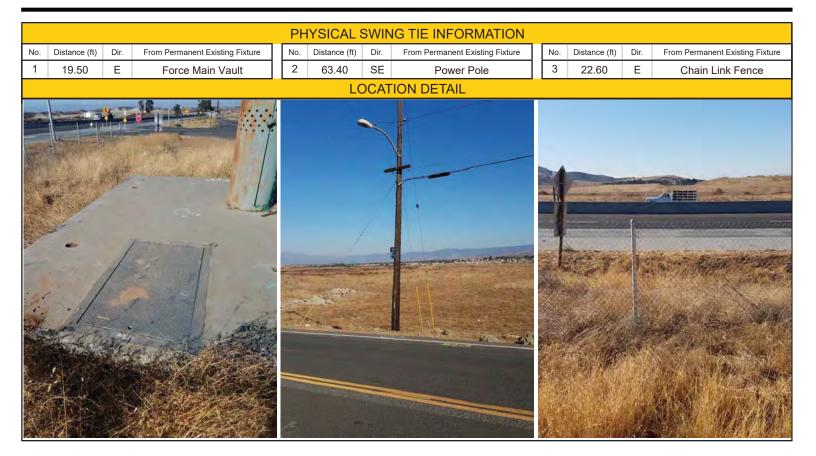




POTHOLING DATA SHEET

14280 EUCLID AVE., CHINO OFFICE: (888) 902-3569 FAX: (909) 606-6555

Technician Name	е			Date			C Below Project No.
Jacob Banksto	n			10-03-2020			20-2491
Project Name				-	Project Add	ress	
City of Beaum	iont Force r	nain Utility	Locating Inves	stigation	Potrero B	lvd & V	Western Knolls Avenue Beaumont, CA 92223
Client Company					Contact		
Cannon Corp.	Los Angele	S			Eric		
Pothole No.		Locatio					
ST1		West	Bound on Wes	tern Knolls Ave., So	uth West o	f Prope	erty 1280
Surface Type:	Soil		Prof	ile View (not to scale	e)	_	
	5011		Measured	Distance from Finisl	hed Surface	e	
Thickness:	N/A	(feet)				Notes	S:
Top		(feet)					oximate coordiates: 33.933883°N 117.007647°W
Тор:	7.28	(leet)				19.50) ft. east of the Force main vault lid.
5.4							
Bottom:	8.28	(feet)					
Size:	12	(in)					
Utility:	Sewer		/ '_/				
Ounty.	Sewei			/			
Material:				.]/			
iviateriai.	Plastic						
	[
Direction:	NE-SW						



No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	e Ite	em 4.
ST1	Sewer	12	Plastic	7.28	NE-SW	West Bound on Western Knolls Ave., South West of Property 1280	So	il



Photo 1

Photo 2





Comments:





POTHOLING DATA SHEET

14280 EUCLID AVE., CHINO OFFICE: (888) 902-3569 FAX: (909) 606-6555

Technician Name	э			Date			C Below Project No.
Jacob Banksto	n			10-03-2020			20-2491
Project Name					Project Addre	SS	
City of Beaum	ont Force n	nain			Potrero Blv	d & W	Vestern Knolls Avenue Beaumont, CA 92223
Client Company					Contact		
Cannon Corp.	Los Angele	S			Eric		
Pothole No.		Locatio					
ST2		West	of 630 Nicholas	s Rd. in Field			
Surface Type:	Soil		Prof	ile View (not to scale	e)		
	5011		Measured	Distance from Finisl	ned Surface		
Thickness:	N/A	(feet)			١	Votes:	:
Top:	C 02	(feet)			A	Appro	ximate Coordinates 33.9300501, -116.9950839
TOP.	6.03	(ieer)					
.		<u> </u>					
Bottom:	7.03	(feet)					
Size:	12	(in)					
I							
Utility:	6		 ' /				
Otinty.	Sewer			/ })			
Martin				.))			
Material:	Plastic			\land \parallel \parallel			
Direction:	E-W						

	PHYSICAL SWING TIE INFORMATION												
No.	Distance (ft)	Dir.	From Permanent Existing Fixture	No.	Distance (ft)	Dir.	From Permanent Existing Fixture	1 [No.	Distance (ft)	Dir.	From Permanent Existing Fixture	
1	8.10	E	Force Main Breather tube	2	58.10	Ν	Fence] [3	N/A	N/A	N/A	
					LC	CAT	ION DETAIL						
LE L													

No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	ttem 4.
ST2	Sewer	12	Plastic	6.03	E-W	West of 630 Nicholas Rd. in Field	Soil



Photo 1

Photo 2



Photo 3

Photo 4

Comments:





POTHOLING DATA SHEET

14280 EUCLID AVE., CHINO OFFICE: (888) 902-3569 FAX: (909) 606-6555

Technician Name	Э			Date			C Below Project No.
Jacob Banksto	n			10-03-2020			20-2491
Project Name					Project Addres	SS	
City of Beaum	ont Force r	nain			Potrero Blvo	1 & W	Vestern Knolls Avenue Beaumont, CA 92223
Client Company					Contact		
Cannon Corp.	Los Angele	S			Eric		
Pothole No.		Location					
ST2.1		West o	f 630 Nicholas	Rd. in Field			
Surface Type:	Soil			le View (not to scale Distance from Finisl			
Thickness:	N/A	(feet)	weasured	Distance from Finis			
	,] _ _	1		lotes:	
Top:	5.70	(feet)			A	.ppro>	oximate Coordinates 33.9300501, -116.9950839
Bottom:	7.00	(feet)					
Size:	16	(in)					
Utility:	Sewer						
Material:	Plastic						
Direction:	E-W						

PHYSICAL SWING TIE INFORMATION												
No.	Distance (ft)	Dir.	From Permanent Existing Fixture	No.	Distance (ft)	Dir.	From Permanent Existing Fixture] [No.	Distance (ft)	Dir.	From Permanent Existing Fixture
1	8.00	Е	Force Main Breather tube	2	55.40	Ν	Fence] [3	N/A	N/A	N/A
					LC	CAT	ION DETAIL					
C IB												

No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	ttem 4.
ST2.1	Sewer	16	Plastic	5.70	E-W	West of 630 Nicholas Rd. in Field	Soil



Photo 1

Photo 2



Photo 3

Photo 4

Comments:





APPENDIX E

Fairway Canyon Preliminary Design Report (PDR) Review Memorandum





April 15, 2021

City of Beaumont 550 E. 6th Street Beaumont, CA 92223

Attention: Sue Foxworth Solid Waste & Recycling Manager

Subject: Fairway Canyon Preliminary Design Report (PDR) Review Memorandum

Dear Sue:

We are pleased to submit this letter memorandum for the Fairway Canyon Preliminary Design Report Review. This letter memorandum includes the following sections:

- Study Area
- Flow Comparison
- Capacity Evaluation Review
- Conclusion

The purpose of this Technical Memorandum is to document the review of the Fairway Canyon Preliminary Design Report (PDR) as prepared by Proactive Engineering Consultants West, Inc. The PDR documents development dwelling units, estimation of future average, peak and design flows, design pumping capacity, force main size, and pump selection.

The City requested that Akel Engineering Group review the PDR for consistency with criteria documented in the City's in-progress 2021 Wastewater Master Plan. The remaining sections of the Technical Memorandum document the results of this review.

1.0 STUDY AREA

The Fairway Canyon development is a four-phase residential development in the northwest portion of the City of Beaumont (City), as shown on **Figure 1**. Three of the four planned phases have been completed; the final phase (Phase 4) is currently in the planning process. Phase 4 consists of 1,312 total dwelling units spread over approximately 310 acres. In addition to summarizing the layout of the final phase residential dwelling units, the PDR estimates average and peak design sewer flows that are used to estimate required lift station capacity and force main sizes.

It should be noted that the 2021 WMP evaluated the buildout of the City's general plan and included additional residential development east of San Timoteo Canyon Road between Hogan Drive and the northern boundary of the currently planned Phase 4 Fairway Canyon development. The flows from this additional residential development were also assumed tributary to the currently planned Fairway Canyon lift station. Should these future residential lands develop it is recommended City staff reevaluate the capacity of the planned Fairway Canyon lift station.

2.0 FLOW COMPARISON

The PDR estimated the average sewer flows using per capita sewer flow generation rates based on Eastern Municipal Water District (EMWD) standards. The in-progress City of 2021 Wastewater Master Plan (WMP) prepared an estimate of average sewer flows for the study area that is based on EMWD unit flow factors applied to overall site acreage. A comparison of the flow factors, peaking factors, and estimated flows is shown on Table 1 and summarized below.

2.1 PDR Flow Estimation

The PDR estimated average flows on a dwelling unit basis and used peaking factor and additional safety factors based on EMWD standards. The estimated average, peak, and design flows are summarized below.

• Average Flows: According to the PDR, EMWD planning standards specify an average household occupancy of 3.5 persons per dwelling unit and an average per capita sewer flow generation rate of 100 gallons per day. The PDR combines these two factors for a per DU sewer flow generation rate of 350 gpd/DU.

Based on the total of 1,312 total dwelling units and an average sewer flow generation rate of 350 gpd/DU, the total average sewer flow for Phase 4 of the Fairway Canyon Development is 319 gpm.

- **Peak Flows:** Assuming a peaking factor of 2.02, based on EMWD standards, the estimated peak flow from the future development is 644 gpm.
- **Design Flows:** Based on an additional factor of safety 20 percent the design flow is 773 gpm.

2.2 In-Progress 2021 WMP

The in-progress 2021 WMP estimates average flows on a per acres basis and uses daily peaking factors based on historical flow data and hourly peaking factors based on flow monitoring data. The estimated average and peak flows using this methodology are summarized on the following page.

- Average Flows: Based on a total site acreage of 307 acres, and using the WMP Single Family Residential flow factor of 1,396 gpd/acre consistent with EMWD planning standards, the total average sewer flow for planned development is 298 gpm.
- **Peak flows:** Using a peak day peaking factor of 1.33, based on historical flow records, and an hourly peaking factor of 1.54 based on flow monitoring data, the estimated development peak flow is 610 gpm.

The PDR flow estimation methodology results in a more conservative design flow and is an acceptable basis for sewer system planning.

3.0 CAPACITY EVALUATION REVIEW

The PDR documented required lift station pump and force main sizes based on the estimated design flow. The locations of the planned lift station and force mains are summarized on Figure 2. The following sections document the capacity evaluation for the planned lift stations and force mains and review for consistency with the in-progress 2021 WMP criteria.

3.1 Lift Station Capacity

The plans for Phase 4 of the Fairway Canyon development include a temporary lift station to collect and convey flows as the first part of the development phase is completed, with a final lift station planned as the remainder of the Phase 4 units are constructed. The PDR documented the capacity estimation for the permanent lift station, which is reflected in this review.

Based on an estimated design flow of 773 gpm the PDR specifies the future lift station to include two pumps at 803 gpm each. This results in a firm and total lift station design capacity of 803 gpm and 1,606 gpm, respectively, which meets the 2021 WMP criteria.

3.2 Force Main Capacity

The PDR includes two parallel 8-inch force mains, each approximately 6,200 feet in length, to convey flows from the planned permanent lift station to the City's existing gravity system. According to EMWD lift station design standards force main lengths in excess of 6,000 feet require two parallel force mains for reliability purposes. For the purpose of this capacity review, it was assumed that only one force main will be active at any time.

Based on planned lift station pump flow of 803 gpm and assuming a single 8-inch force main in service the maximum force main velocity is approximately 4.9 feet per second (ft/s) (Table 1), which meets the 2021 WMP criteria.

4.0 SUMMARY

Phase 4 of the Fairway Canyon development includes more than 1,300 residential dwelling units distributed over more than 300 acres. The Preliminary Design Report prepared by Proactive

3

Engineering Consultants West, Inc documents the planned development information, estimates average and peak design flows, and includes recommendations for future lift station pump and force main facilities.

The findings of this review indicate that the flow estimation methodology results in a slightly more conservative design flow than what is reflected in the 2021 WMP for the same area. Based on this flow, the recommended lift station pump and force mains are within the criteria set forth in the 2021 WMP.

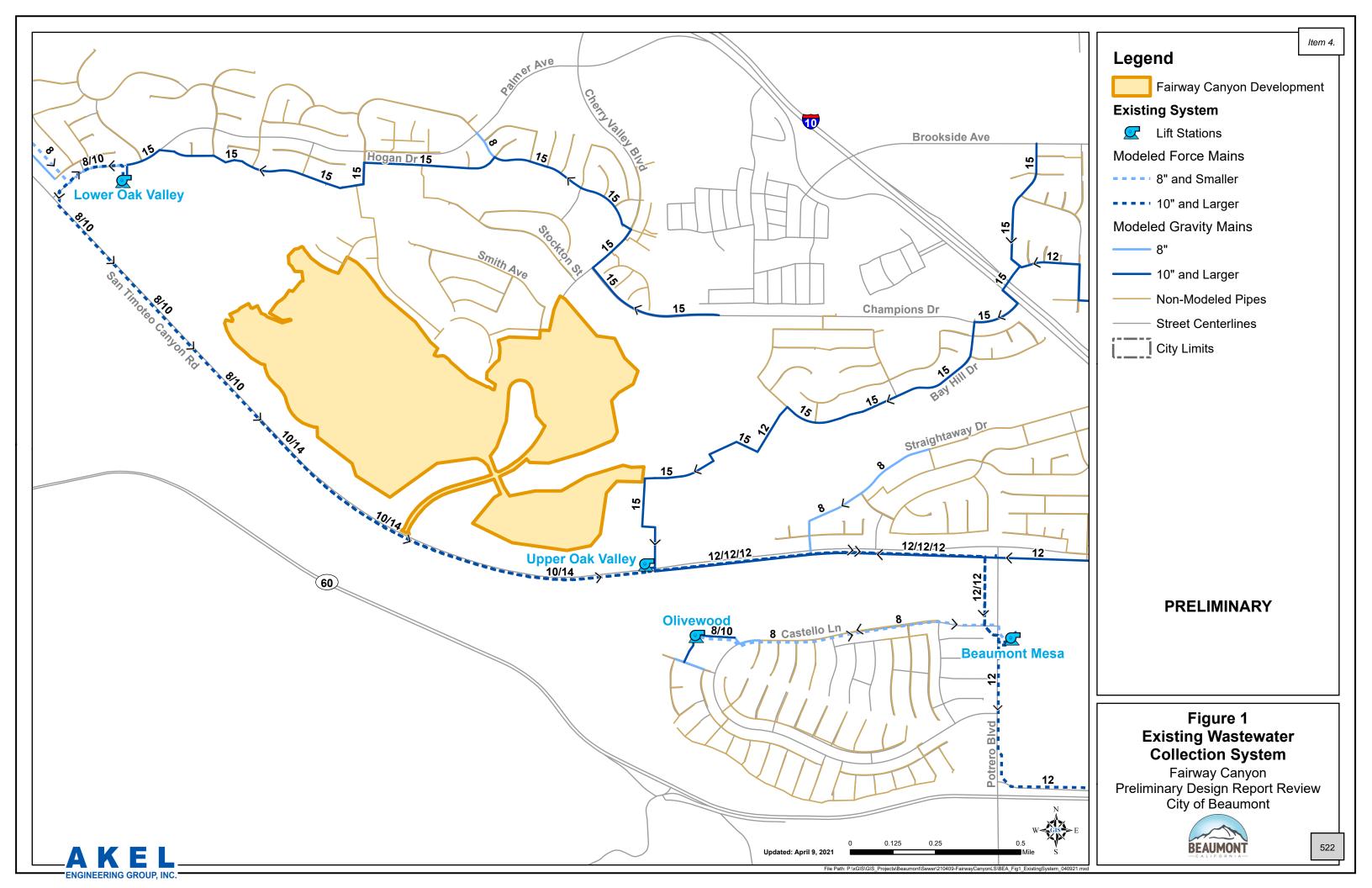
We are extending our thanks to you and other City of Beaumont Staff whose courtesy and cooperation were valuable components in completing this study and producing this report.

4

Sincerely,

AKEL ENGINEERING GROUP, INC.

Tony Akel, P.E. Principal



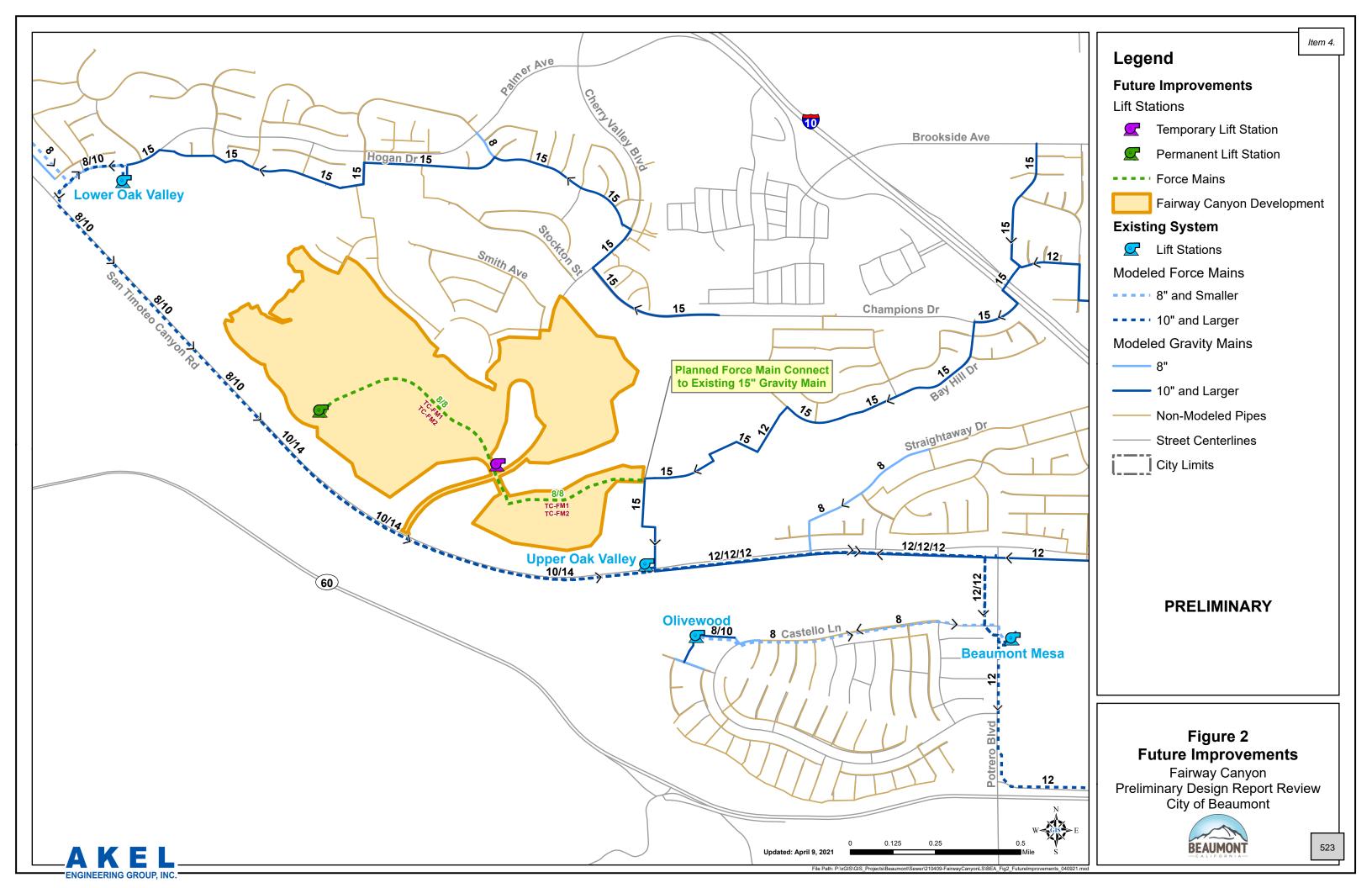


Table 1 Development Summary and Capacity Evaluation

Fairway Canyon Preliminary Design Report Review City of Beaumont

PRELIMINARY

Development and Flow Summary Summary			
Development Information ¹			
Land Use Type Single Family Residential			
Total Dwelling Units, DUs	1,312	DU	
Total Area, acres	307	acres	
Sewer	Flow Estimation		
	Methodology 1 Proactive Engineering Consultants West, Inc. ¹	Methodology 2 2021 In-progress Wastewater Master Plan ²	
Average Flow Factor	350 gpd/DU	1,396 gpd/acre	
Average Flow, gpm	319	298	
Peak Design Sewer Flow, gpm	644	610 ³	
Design flows, gpm	773	610	
Lift Statior	Capacity Evaluation		
Peak Design Sewer Flow, gpm	773	610	
Required Firm Capacity, gpm	773	610	
Minimum Total Capacity	1,546	1,220	
Evaluation Result			
Preliminary design report specifies two 803 gpm pumps for a total station capacity of 1,606 gpm, which meets the minimum capacity requirements.			
Force Main	n Capacity Evaluation		
Force Main Criteria			
Desired Velocity: 2 ft/s to 6.5 f	t/s		
Maximum Velocity: 10 ft/s			
Peak Sewer Flow, gpm	773	610	
Single Force Main Size ⁴ , inch	8	8	
Maximum Velocity, ft/s	4.9	3.9	
Evaluation Result			
The currently planned 8-inch force ma master plan criteria of 10 ft/s.	in will convey the peak do	evleopment flows <mark>within</mark>	
AKEL ENGINEERING GROUP, INC. Notes:		4/15/2021	

1. Source: Sewer Design Calculation Preliminary Design Report provided by City staff March 17, 2021.

2. Average flow factor based on in-progress 2021 WMP, which is consistent with current EMWD standards.

3. Peak sewer flow reflects the following peaking factors:

- Peak Day Flow = 1.33 x Average Annual Flow (Based on Historical Flow Data)

- Peak Hour Flow = 1.54 x Peak Day Flow (Based on 2021 WMP City-Wide Flow Monitoring Data)

4. Current development plans indicate the construction of parallel 8-inch force mains for reliability purposes. For the purposes of the capacity evaluation a single force main is considered operational to convey the full peak flow



APPENDIX F

Wastewater Hydraulic Analysis for McClure Industrial Building



CITY OF BEAUMONT

WASTEWATER HYDRAULIC ANALYSIS FOR MCCLURE INDUSTRIAL BUILDING

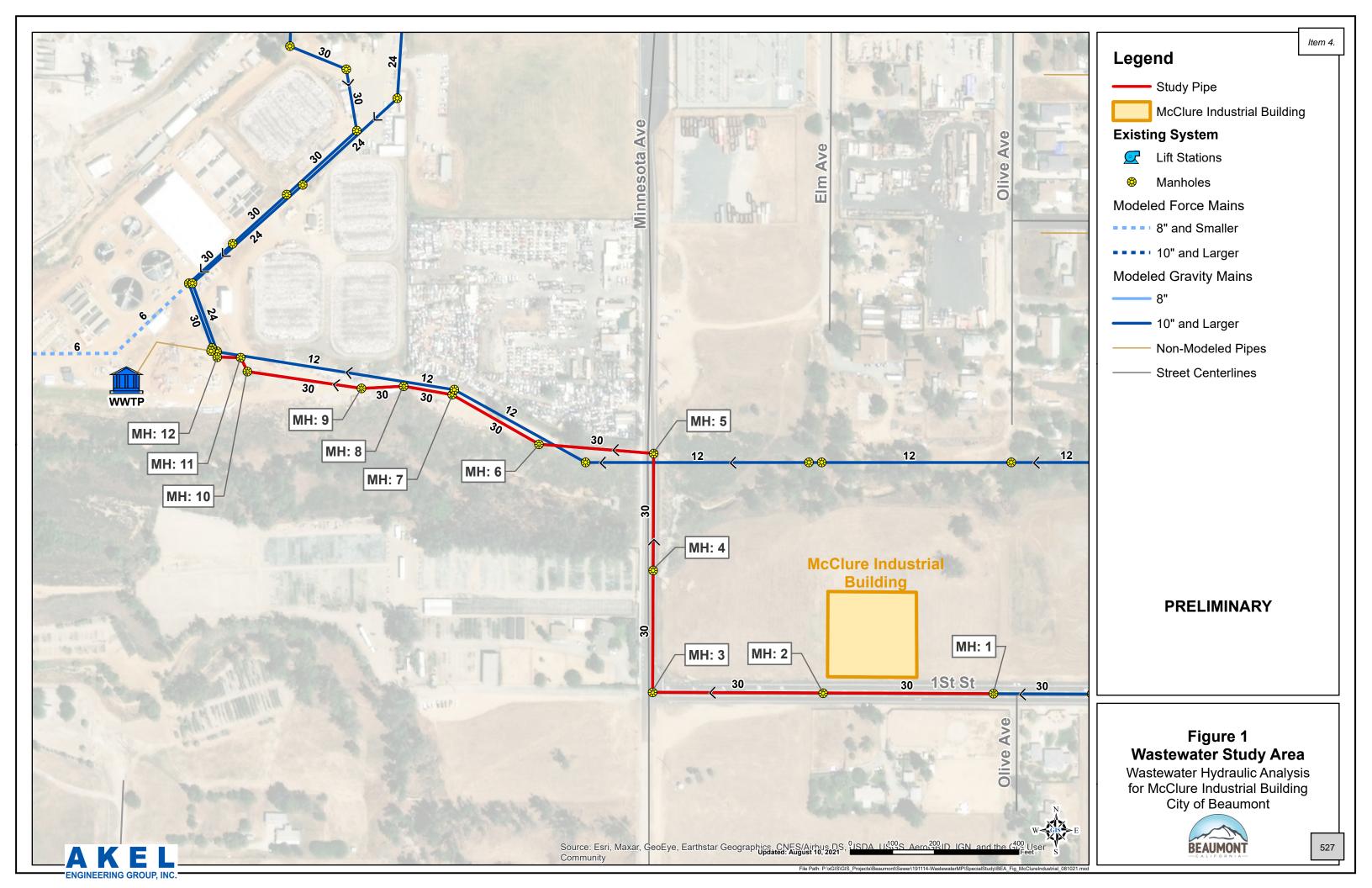
Hydraulic Analysis Package

PRELIMINARY

August 2021



Item 4.



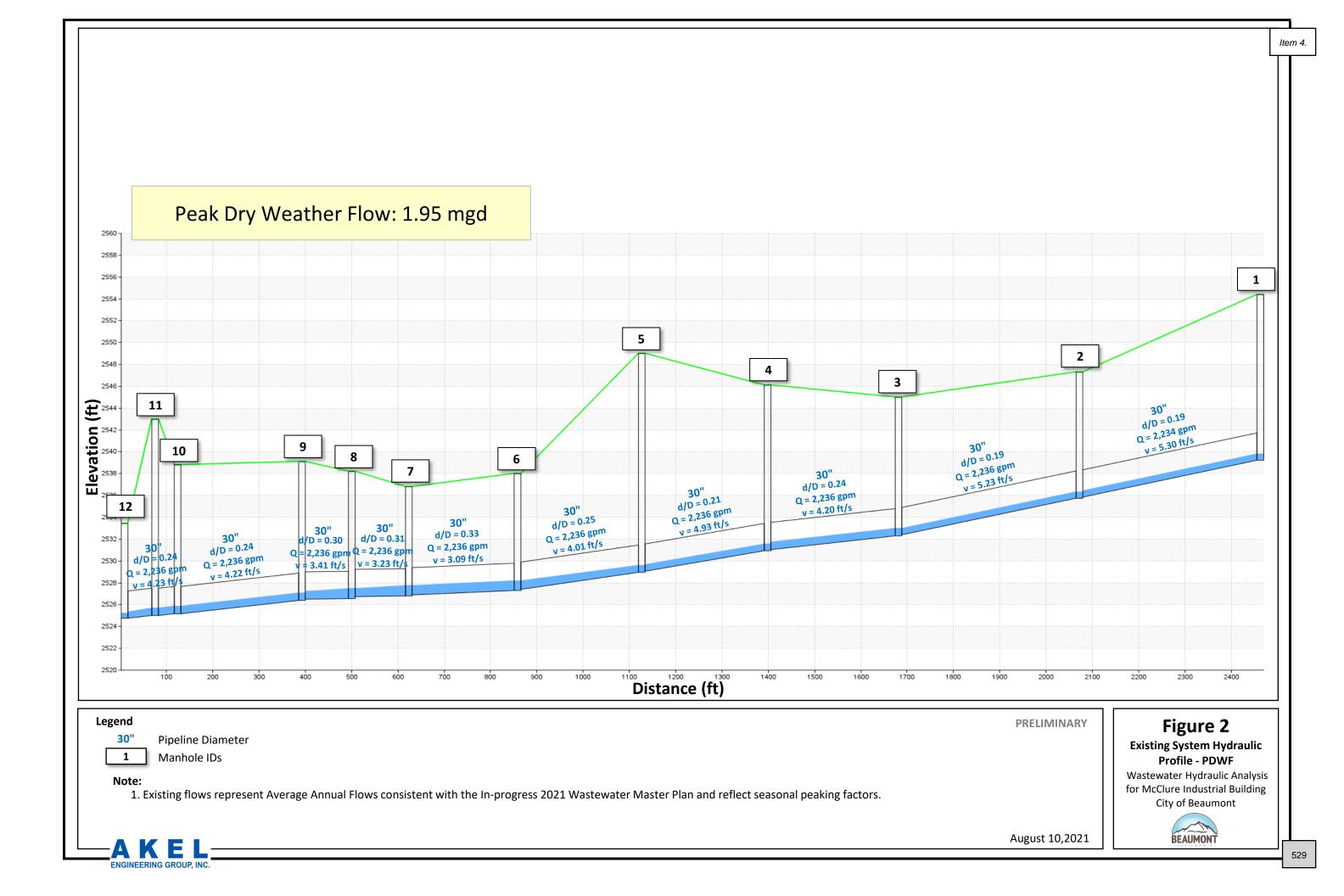
ltem 4.

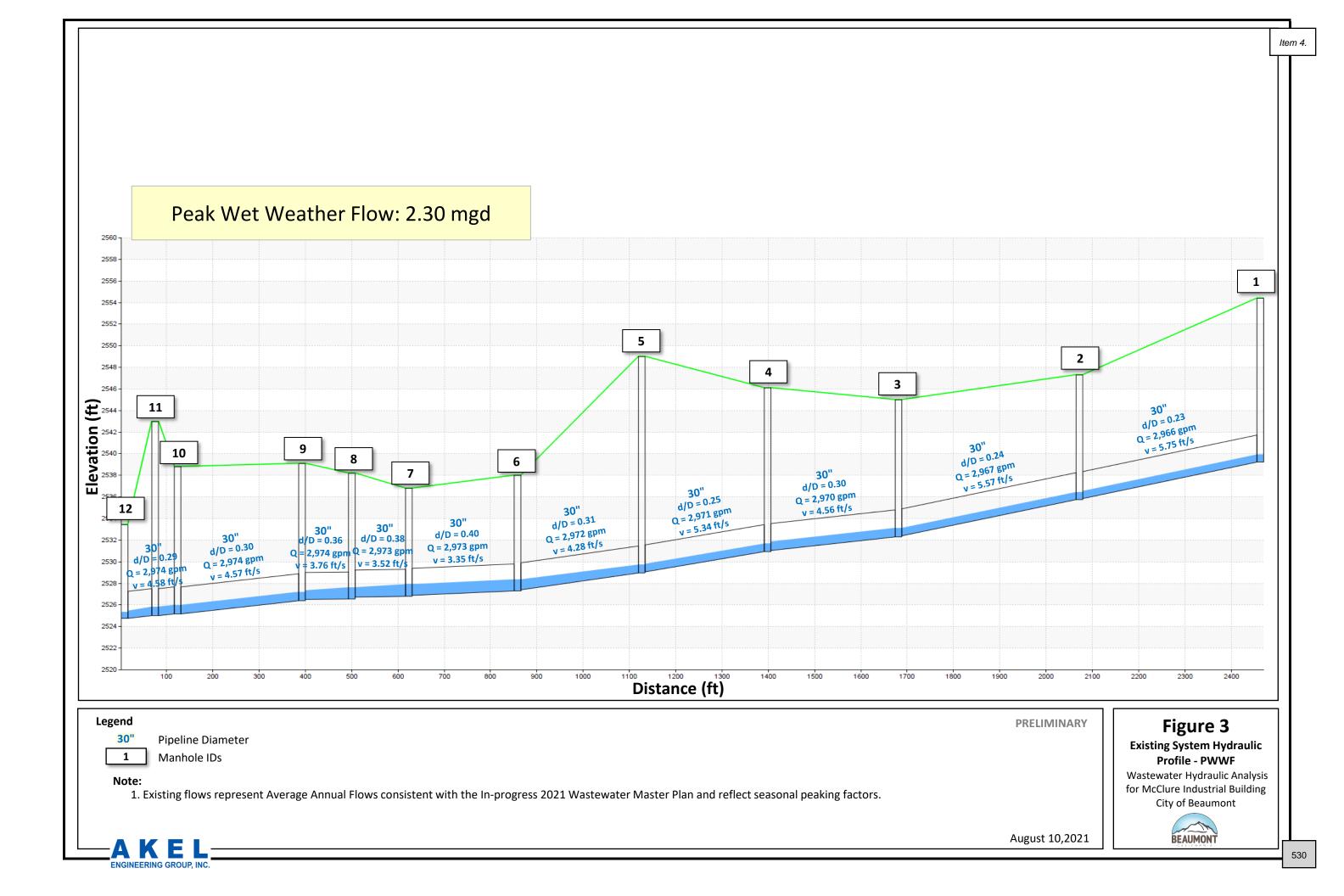
Table 1 Development Summary and Capacity Evaluation

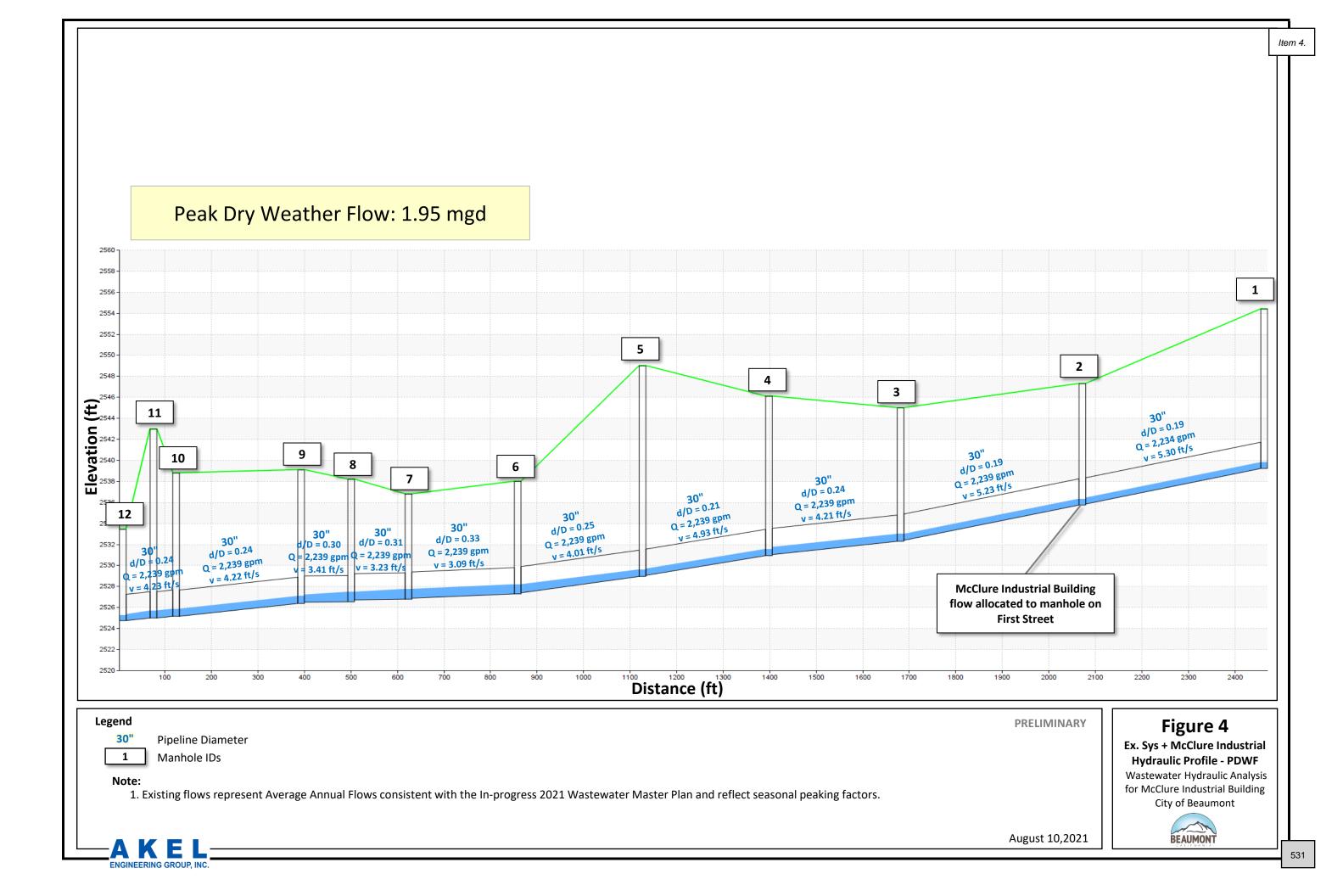
Wastewater Hydraulic Analysis for McClure Industrial Building City of Beaumont

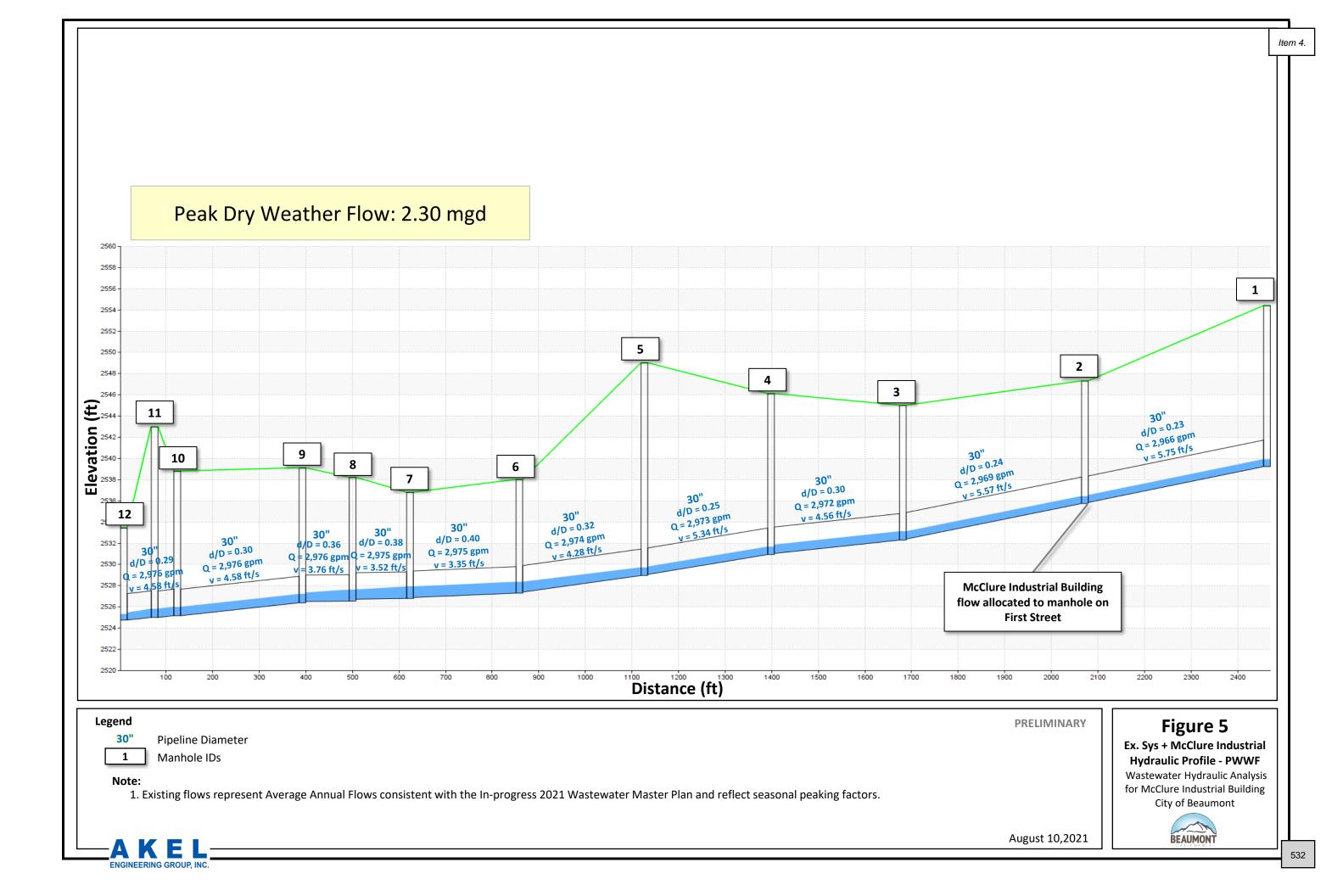
city of beddine	inc.		PRELIMINARY
Development Infor	mation and Flo	w Summ	
Development Information ¹			
Land Use Type		Industri	al
Total Area 1.02 acres		acres	
Sewer Flo	ow Estimation	2,3	
Average Flow Factor		1763	gpd/acre
Average Flow		1.2	gpm
Peak Design Sewer Flow		2.6	gpm
Evalua	ation Results ⁴		
 Dry Weather Flow d/D Criteria: Diameter ≥ 15 inches < 0.70 Wet Weather Flow d/D Criteria: < 1.00 Minimum Velocity: 2 ft/s 			
- Maximum Velocity: 10 ft/s Existing Condition ^{5,6}			
	PDWF		PWWF
d/D	0.33		0.40
Pipeline Velocity, ft/s	3.09		3.35
Existing Condition + McClure Industrial Building ^{5,6}			
	PDWF		PWWF
d/D	0.33		0.40
Pipeline Velocity, ft/s	3.09		3.35
Evaluation Result			
The hydraulic analysis indicates that the peak devleopment flows within master plan criteria.			
ENGINEERING GROUP, INC. Notes:			-,, -

- 1. Source: Development information provided by City staff August 8, 2021.
- 2. Average flow factor based on in-progress 2021 WMP, which is consistent with current EMWD standards.
- 3. Peak sewer flow reflects the following peaking factors:
 - Peak Day Flow = 1.33 x Average Annual Flow (Based on Historical Flow Data)
 - Peak Hour Flow = 1.57 x Peak Day Flow (Based on 2021 WMP City-Wide Flow Monitoring Data)
- 4. Wastewater System Design Criteria extracted from City of Beaumont in-progress 2021 Wastewater Master Plan.
- 5. Depth/Diameter shown reflect the maximum value in the alignment extracted from hydraulic model.
- 6. Pipeline velocity shown reflect the minimum value in the alignment extracted from the hydraulic model.











APPENDIX G

Lift Station Condition Assessment – Prepared by V&A

Technical Memorandum

Akel Engineering Group, Inc. City of Beaumont (Wastewater) LIFT STATION CONDITION ASSESSMENT



Prepared for:	Tony Akel, P.E. Akel Engineering Group 7433 N. First Street, Suite 103 Fresno, CA 93720
Prepared by:	Farshad Malek, P.E.
Reviewed by:	Noy Phannavong, P.E.
Date:	May 2020



V&A Project No. 19-0280

In the promotion of environmental consciousness, this document is designed to be printed double-sided, if at all. V&A strives to do all it can to be a green company. Think twice before printing. Reduce. Reuse. Recycle.



1 INTRODUCTION

V&A Consulting Engineers, Inc. (V&A) was retained by Akel Engineering Group, Inc. (Akel) to support the City of Beaumont (City) with a structural and corrosion assessment of ten sanitary sewer lift stations (LS) located throughout the City's service area. The scope of the assessment included visual evaluation and supplementary non-destructive testing of concrete and metallic components of the major structural and mechanical equipment at each site. The findings will be used to provide input towards the City's Wastewater Master Plan Project. The sanitary sewer lift stations listed below were included in the assessment. Figure 1-1 shows an overview map of the lift station locations.

- 1. Fairway Canyon LS
- 2. Lower Oak Valley LS
- 3. Upper Oak Valley LS
- 4. Olivewood LS
- 5. Beaumont Mesa LS

- 6. Noble Creek LS
- 7. Marshall Creek LS
- 8. Cooper Creek (Industrial Park) LS
- 9. Seneca Springs LS
- 10. Four Seasons LS

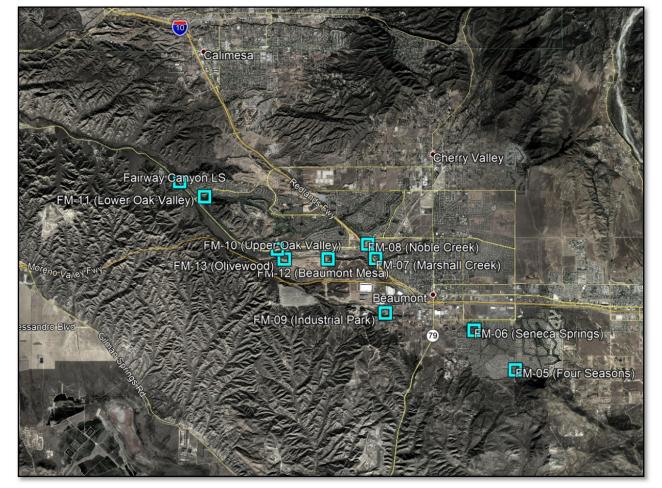


Figure 1-1 Lift Station Location Map

2 APPROACH

2.1 VANDA® Concrete Condition Index

V&A created the VANDA Concrete Condition Index (Table 2-1) to provide consistent reporting of corrosion damage based on objective criteria. Concrete condition is rated from Level 1 to Level 5 based upon field observations and measurements, with Level 1 indicating the best case and Level 5 indicating severe damage. The individual criteria are applied based on engineering judgment to arrive at the overall rating.

Table 2-1. VANDA® Concrete Condition I

Condition Rating	Description	Representative Photograph
Level 1	 Little or no damage to concrete Hardness	
Level 2	 Minor surface damage Hardnesssoft surface layer to 1/8-inch depth Surface profile fine aggregate exposed Crackshairline width, moderate frequency Spallingshallow spalling, minimal frequency Reinforcement not exposed or damaged 	
Level 3	 Moderate surface damage Hardnesssoft surface layer to 1/4-inch depth Surface profile large aggregate exposed or protruding Cracksup to 1/32-inch width, moderate frequency Spallingshallow spalling, minimal frequency Reinforcement exposed; minor damage, minimal frequency 	
Level 4	 Loss of concrete mortar and damage to reinforcement Hardnesssoft paste beyond 1/4-inch depth Surface profile large aggregate exposed, loose, or missing Cracks	
Level 5	Bulk loss of concrete and reinforcement Hardnesssoft paste beyond 1-inch depth Surface profile large aggregate exposed, loose, or missing Cracksover 1/2-inch width, or narrower and frequent Spalling	



2.2 VANDA® Metal Condition Index

V&A created the VANDA Metal Condition Index (Table 2-2) to provide consistent reporting of corrosion damage based on objective criteria. Metal condition is rated from Level 1 to Level 5 based upon field observations and measurements, with Level 1 indicating the best case and Level 5 indicating severe damage. The individual criteria are applied based on engineering judgment to arrive at the overall rating.

Table 2-2. VANDA® Metal Condition Index	Table 2-2.	VANDA®	Metal	Condition	Index
-----------------------------------------	------------	---------------	-------	-----------	-------

	Condition Rating	Description	Representative Photograph
	Level 1	 Little or no corrosion Wall thickness loss, generalnone Wall thickness loss, pittingnone to minimal Extent (area) of corrosionmay be widespread but superficial 	
	Level 2	 Minor corrosion Wall thickness loss, generalup to 20% Wall thickness loss, pittingup to 20% Extent (area) of corrosionlocalized 	
	Level 3	 Moderate corrosion Wall thickness loss, general20% to 40% Wall thickness loss, pitting20% to 60% Extent (area) of corrosionup to half of surface 	
	Level 4	 Severe corrosion Wall thickness loss, general40% to 60% Wall thickness loss, pitting60% to 100% (pinholes) Extent (area) of corrosionmost of surface 	
	Level 5	 Failure or imminent failure Wall thickness loss, generalgreater than 60% Wall thickness loss, pitting100% (holes) Extent (area) of corrosionmost or all of surface 	
(© 2020 V&A	Consulting Engineers, Inc. All rights reserved.	

2.3 Concrete Assessment Methods

2.3.1 Concrete Surface Evaluation

Several methods were used to evaluate the condition of the concrete surfaces and its exposure environment. The methods used for these assessments are described in this section.

2.3.1.1 Sounding

Sounding was performed on accessible concrete slabs and walls at the evaluator's discretion to investigate for shallow, subsurface discontinuities. Using a hammer to strike accessible concrete surfaces, the sound can indicate if defects such as voids, delamination, or honeycombing are present. The sound returned from solid concrete without subsurface discontinuities is a sharp "ping" noise. A "hollow" sound generally means that a discontinuity exists beneath the sounding location. A soft "thud" typically results from deteriorated concrete.

2.3.1.2 Penetration Testing

Penetration testing was performed in concrete dry wells to estimate the depth of degradation from the existing surface of concrete. Penetration testing could not be performed in wet wells without conducting a confined space entry. Typically, as concrete deteriorates the cement paste begins to lose alkalinity. A chipping hammer was used to remove loose and degraded material from the concrete surface until highly alkaline concrete is reached where practical, and then the depth of the resulting cavity is measured. Unless the concrete is soft and chalky, V&A will typically not chip away more than 1/2-inch deep. In this case, if the pH in the cavity is not greater than 10, then the extent of degradation has not been reached and concrete coring is recommended. The correlation between penetration measurements and concrete surface hardness is presented in Table 2-3.

Penetration Depth (in.)	Surface Texture	Scaling ⁽¹⁾
< 1/16	Hard surface, no scaling ⁽¹⁾	No scaling
1/16 - 1/8	Softened surface and/or loose cementitious material, light scaling	Light scaling
1/8 - 1/4	Soft surface and/or exposed and loose fine aggregate, medium scaling	Medium scaling
> 1/4	Soft paste and/or exposed and loose coarse aggregate, severe scaling	Severe scaling

Table 2-3 Concrete Surface Hardness Index

⁽¹⁾ Scaling is defined by flaking or peeling away of near surface portion of hardened concrete or mortar, per ACI 201R, Condition Survey Guide.

2.3.1.3 Surface pH Measurements

V&A performed in-situ pH measurements on exposed concrete surfaces in concrete dry wells using a pH sensitive pencil. Surface pH testing could not be performed in wet wells without conducting a confined space entry. The pH of concrete exposed to wastewater is commonly altered by carbonation and hydrogen sulfide induced acid-attack (biogenic corrosion). Concrete carbonation refers to the reaction of atmospheric CO₂ with cement hydrates in concrete, which can lower the pH of the concrete to as low as 8.5. Carbonation is typically a slow process and is harmless until its depth reaches embedded reinforcing steel. Hydrogen sulfide induced corrosion, on the other hand, can be an aggressive mechanism of concrete degradation, where gaseous hydrogen sulfide is oxidized to sulfuric acid on surfaces within the sewer headspace. This process can severely deteriorate concrete and reduce the

surface pH to as low as pH 1.

The surface pH of the concrete can indicate the rate of concrete deterioration due to environment exposure. In general, with conventional concrete mix designs using common Type II and Type V Portland cements, concrete has the ability to withstand moderately low pH surfaces (\approx 6.0) for long periods of time. The generally accepted ranges for corrosion categories and surface pH values are listed below:

- Severe Corrosion. This category of concrete corrosion is characterized by significant measurable concrete loss or active corrosion. There is exposed aggregate and occasional exposed reinforcing steel. The original concrete surface is not distinguishable. The surface is covered with soft, pasty corrosion products where active scouring is not present. There is generally a depressed wall pH (< 3.0) indicating active corrosion.
- Moderate Corrosion. This category of concrete corrosion is characterized by some concrete loss with aggregate slightly exposed, but the original concrete surface is still distinguishable. The surface may have a thin covering of pasty material which is easily penetrated. There is generally a depressed wall pH (< 5.0) indicating moderately corrosive conditions.
- Light Corrosion. This category of concrete corrosion is characterized by a slightly depressed pH (< 6.0) and a concrete surface that can be scratched with a sharp instrument under moderate hand pressure with the removal of some concrete material. The original concrete surface is fully recognizable, and aggregate may or may not be exposed.
- Negligible Corrosion. This category of concrete corrosion is characterized by normal pH ranges (>6.0) and a normal concrete surface which cannot be penetrated or removed by a sharp instrument under moderate hand pressure. The surface of the concrete may have biological growth and moisture, but the concrete is normal, and the aggregate is not exposed.

Concrete pH levels below 10 at the depth of reinforcing steel bars can cause corrosion of the bars.

2.4 Coating Assessment

2.4.1 Dry Film Thickness

Dry film thickness (DFT) is the thickness of a coating after it has cured. A DFT gauge uses electromagnetic induction or eddy current technology to measure the thickness of a wide variety of coatings on metal surfaces. V&A used a gauge that can measure coatings up to 0.2 inches (200 mils) in thickness. Measurements were taken on metallic components in the same manner as described for ultrasonic testing in Section 2.5.1.

2.5 Metal Assessment Methods

2.5.1 Ultrasonic Testing

Ultrasonic testing (UT) is a non-destructive evaluation technique used for the determination of metal wall thickness. High-frequency sound waves are transmitted through one side of a metal wall from a transducer. When the sound waves reach the other side of the metal wall, a fraction of the waves will echo back to the transducer. The metal thickness is determined by recording the time it takes for the sound wave to travel through the metal and return.

Measurements were recorded for various piping. For pipes, measurements were made around the pipe circumference and were referenced to four clock positions (12:00, 3:00, 6:00, and 9:00) viewed in the downstream direction (Figure 2-1). If pitting, or extremely localized corrosion is found, a pit depth gauge will be used since UT may not provide acceptable readings due to the rough surface.

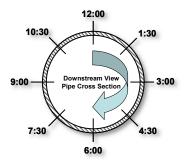


Figure 2-1 Clock Positions on Pipe Looking Downstream

3 CONCLUSIONS/RECOMMENDATIONS

Table 3-1 (below) provides a color-coded summary of the overall VANDA® ratings assigned to the various major components at each respective lift station. Table 3-2 provides a summary of recommendations resulting from V&A's corrosion assessment. Observations are supplemented with photographs and more detailed recommendations in the appendices. The appendices are provided as follows:

- A-1. Fairway Canyon LS
- A-2. Lower Oak Valley LS
- A-3. Upper Oak Valley LS
- A-4. Olivewood LS
- A-5. Beaumont Mesa LS
- A-6. Noble Creek LS
- A-7. Marshall Creek LS
- A-8. Cooper Creek (Industrial Park) LS
- A-9. Seneca Springs LS
- A-10. Four Seasons LS

Table 3-1 VANDA Condition Ratings Summary Table

	VANDA® Ratings (Overall)								
		Conci	rete (Strue	ctural)	-	Metal (Piping)			
Lift Station	CMU Wall	Equipment Pads ⁽¹⁾	Dry Well	Wet Well ⁽²⁾	Bypass MH ⁽²⁾	Aboveground	Belowground	Wet Well	
1. Fairway Canyon LS	2	2	2	3	_ (3)	-	2	3	
2. Lower Oak Valley LS	2	3	-	2	2	2	-	4	
3. Upper Oak Valley LS	2	2	-	2	3	2	-	4	
4. Olivewood LS	2	2	-	2	-	2	-	2	
5. Beaumont Mesa LS	2	2	2	2	4	2	2	4	
6. Noble Creek LS	-	2	-	2	1	3	-	4	
7. Marshall Creek LS	2	2	-	2	2	3	-	4	
8. Cooper Creek (Industrial Park) LS	-	2	-	2	-	2	-	3	
9. Seneca Springs LS	3	2	-	1	1	2	-	3	
10. Four Seasons LS	3	3	-	2	2	2	-	3	

⁽¹⁾ Includes roof slab of wet well structures.

(2) VANDA® ratings for lined structures assume liner is providing adequate protection against deterioration.

⁽³⁾ Not applicable.

Table 3-2 Recommendation Summary Table

	Recommendation								
Lift Station	Mortar (CMU)	Concrete repair	Repair Liner	New Liner	Replace Piping (Wet Well)	Touch up Coating	New Coating	Other	
1. Fairway Canyon LS	х		х		х	х		х	
2. Lower Oak Valley LS	х	х	х		х	х			
3. Upper Oak Valley LS		х		х	х		х	х	
4. Olivewood LS							х		
5. Beaumont Mesa LS		х	х	х		х		х	
6. Noble Creek LS					х		х		
7. Marshall Creek LS			Х		х		х	х	
8. Cooper Creek (Industrial Park) LS							х		
9. Seneca Springs LS	х					х		х	
10. Four Seasons LS			х			х		Х	

APPENDICES



City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-1



Lift Station

Location:
Assessment Date:
Assessed by:
Lift Station Type:
Pumps:
Discharge Piping:

Fairway Canyon LS 33.964192°; -117.070813° 04.27.2020 Farshad Malek Non-submersible Duty: Pump #1, Pump #2 9" DIP



Sanitary Sewer / Location Map

Condition <u>Site</u> Summary:

- CMU perimeter wall, split face on external and shot-blast on the interior (VANDA 2)
 - There is no mortar on the vertical joints
 - Limited efflorescence observed, typically 0"-12" around the perimeter, presumably where there is less direct sunlight (moisture evaporation)
 - Spalling block on lower interior wall, near entrance
- Asphalt cracking throughout the site (0.25" width)
- Equipment concrete pads in good overall condition (VANDA 2)
 - Light exposed aggregate on generator equipment pad

Dry Well

- Steel can structure well lined in overall good condition (VANDA 2)
 - (2x) 6" pump assemblies
 - Minor surface corrosion typical at bolts and flanges throughout piping (VANDA 2)
 - Pump #2: leak from pump/motor onto flange resulting in VANDA 3 level corrosion; leak then continues to bottom of dry well (1/4" to 1/2" deep standing water)
- Pipe supports are in good condition, however the bottom is likely to develop corrosion due to constant submersion (leak from Pump #2)
- Corrosion in northwest wall where liner has failed
- Corrosion where conduit clamps have been fastened into the cone section

Wet Well

- Concrete collar: VANDA 3 rating with spalling concrete showing exposed aggregate (~6" x 3" area)
- PVC liner and concrete structure are in good condition overall
- Moderate grease layer covering interior of wet well
- Stainless steel ladder in good condition

Missing mortar at vertical CMU joints (typical) Efflorescence typical along bottom 0"-12"



Spalling block wall near entrance



Spalling block (closeup)













X&**V**

Dry well interior



Dry well interior



Pump #1



Pump #1 corrosion at bolts



Pump #2, leak at pump/motor



Pump #2 corrosion due to leak (closeup)



Degraded liner and coating



Pump #2 corrosion at bolts/flanges



1-1/2" Sump Pump piping



Air blower



Corrosion where lined has failed (NW wall)



Corroded hardware at conduit supports

Beaumont Wastewater



X&**V**



Exposed aggregate at wet well concrete collar



Exposed conduit outlet body



Wet well interior



Wet well interior (closeup)



Wet well interior (closeup)



Wet well interior (closeup)

Item 4.

UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (%)	Max. Wall Loss (in.)	Maximum Metal Loss (%)
1	Pump 1 (suction)	0.370	0.389	0.376	0.030	8%	0.370
2	Pump 1 (discharge)	0.396	0.437	0.410	0.004	1%	0.396
3	Pump 2 (discharge)	0.391	0.396	0.394	0.009	2%	0.391

DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 1 (suction)	6.9	10.4	8.8	8 to 12
2	Pump 1 (discharge)	19.0	35.7	28.1	8 to 12
3	Pump 2 (discharge)	23.5	39.3	29.9	8 to 12

⁽¹⁾ Piping not exposed to sunlight is recommended to have 8 to 12 mils of epoxy coating

Recommendations

- 1. Repair leak from Pump #2 as soon as possible to prevent further corrosion and ensure longevity of other equipment.
- Touch up pipe coating as needed in dry well with two coats at 4 to 6 mils each of a surface tolerant epoxy. Acceptable products include Carboline Carboguard 891 VOC, PPG Amerlock 400, or Tnemec L69 Hi Build Epoxoline II. The surfaces will have to be prepared per SSPC SP11 Power Tool Cleaning to Bare Metal for proper adhesion and coating longevity.
- 3. Repair liner in dry well at locations identified and replace conduit support hardware; provide proper isolation of dissimilar metals to prevent future corrosion.
- 4. Apply mortar (Sika 223 or equal) to cover exposed aggregate on wet well concrete collar; provide a smooth finish to protect the concrete from moisture. Application shall not exceed the maximum application thickness specified by the manufacturer to prevent feathering (thin layers that will lead to cracking and delamination).

City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-2



Lift Station

Lift Station ID: Location: Assessment Date: Assessed by: Lift Station Type: Pumps:

Discharge Piping:

Lower Oak Valley LS 33.959571°; -117.061583° 04.27.2020 Farshad Malek Submersible Pump Duty: Pump #1, Pump #2 Note: Pump #3 will not keep up with flow (50-hp) 6" & 10" DIP



Sanitary Sewer / Location Map

Condition <u>Site</u>

- Summary:
- CMU perimeter wall in good condition (VANDA 2) with minor efflorescence typical throughout
- Pointing in poor condition, either missing or depressed in most vertical joints on exterior, split-face side
- Asphalt in fair condition, minor cracks near entrance
- Concrete pads in overall fair condition (VANDA 3) with multiple cracks observed
 Cracked concrete at Pump 1 discharge header

Aboveground Piping

- Surface corrosion observed throughout piping where coating has failed (VANDA 2)
- Cracking on external rubber seals, presumably from UV damage and differential settlement of pipe supports
- Corrosion typical at threaded connections for ARVs and Air-Vac Valves
- Cracked concrete collar at 4" flange-mounts on top of concrete supports
- Cracked concrete pipe supports (x2) at Pump #3 ARVs; piping appears to have laterally shifted by 1 - 2 inches
- Corrosion at valve handle for 2" Industrial Water line (note: staff has noted this line is not in service, typical throughout District)

Wet Well

- T-lock liner appears to be in good condition with staining; concrete beneath is presumed to be in good condition (VANDA 2)
- Liner appears to have air pockets on inlet side of wall
- Coating is flaking off the safety grating at the opening
- Vent piping moderately corroded throughout (VANDA 3)
- Pump discharge piping is heavily corroded (VANDA 4)

Bypass Manhole

• Corrosion at manhole frame (VANDA 3)



- Liner is disbonding from the concrete at the cone; concrete beneath in good condition (VANDA 2)
- Pinholes in liner (x2) roughly halfway from the bench

Additional findings

• Minor corrosion observed on electrical panels



Site Photo 1



Site Photo 2

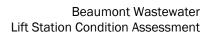


Missing mortar at vertical CMU joints (typical)



Efflorescence typical throughout interior CMU









Aboveground piping



Corrosion typical where coating has flaked



Corrosion typical where coating has flaked



Corrosion at ARV threaded connections (typical)



Cracking external rubber seals (typical)



Crack in concrete at Pump 1 discharge header

V&A Project No. 19-0280



Cracked concrete collar at 4-in flange-mounted pipe support (typical)



Cracked concrete pipe supports at Pump #3 ARVs; pipe shifted to left in photo



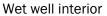
Wet well exterior



Peeling/flaking coating from grating

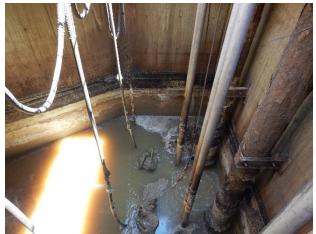








Wet well interior



Wet well interior



Heavy corrosion on pump discharge piping (VANDA 4; typical)



Pump discharge piping (closeup)



Pump discharge piping (closeup)

Beaumont Wastewater Lower Oak Valley Lift Station Condition Assessment

V&A Project No. 19-0280





Bypass MH exterior, corrosion at rim



Bypass MH liner disbonding from cone



Bypass MH interior, pinholes in liner



EPDM ladder rungs in good condition

UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max. Wall Loss (%)
1	Pump 1 (spool)	0.377	0.392	0.383	0.043	10%
2	Pump 2 (spool)	0.365	0.380	0.370	0.015	4%
3	Pump 3 (spool)	0.358	0.399	0.379	0.022	6%

DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 1 (spool)	8.3	15.1	11.8	6 to 9
2	Pump 2 (spool)	7.3	10.6	9.1	6 to 9
3	Pump 3 (spool)	9.9	11.1	10.5	6 to 9

⁽¹⁾ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane

Recommendations

- 1. Monitor the state of degradation of the CMU wall mortar annually; if condition worsens, rake out mortared joints to a ¹/₄-in to a ¹/₂-in depth and pack with new mortar with the finish slightly recessed from the face of the block. Mortar vertical joints as well.
- 2. Touch up above-ground pipe coating as needed with 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane. The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.
- 3. Coat surfaces of galvanized steel piping and threaded connections
- 4. Repair cracked/broken concrete with Sika 223 or equal; provide a smooth finish to protect the concrete from moisture. Application shall not exceed the maximum application thickness specified by the manufacturer to prevent feathering (thin layers that will lead to cracking and delamination). Concrete repairs include the concrete at the Pump 1 discharge header, the concrete collars at the flange-mounted pipe supports (3 to 4 locations), and the cracked concrete pipe supports for Pump #3.
- 5. Monitor piping and supports for lateral movement and differential settlement.
- 6. Replace submersible pump discharge piping with fusion bonded epoxy-coated and lined steel piping.
- 7. Fully bond liner to the concrete at the cone of the bypass manhole, and repair pinholes. Acceptable products include Sancon 100 or equal.

- (

City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-3



Lift Station

Lift Station ID:	Upper Oak Valley LS
Location:	33.943414°; -117.0
Assessment Date:	04.28.2020
Assessed by:	Farshad Malek
Lift Station Type:	Submersible Pump
Pumps:	Duty: Pump #1, Pum
	Standby/High Level:

Discharge Piping:

33.943414°; -117.034672° 04.28.2020 Farshad Malek Submersible Pump Duty: Pump #1, Pump #5 Standby/High Level: Pump #3 Future: Pump #2, Pump #4 6" split (x2)



Sanitary Sewer / Location Map

Condition <u>Site</u> Summary:

- CMU perimeter wall in good condition (VANDA 2) with minor efflorescence typical
 - Spalling pocket on interior of south wall
 - Pointing in fair condition
- Asphalt in good overall condition, one large crack (0.2") spanning from the wet well structure to the entrance gate
- Concrete pads in overall good condition (VANDA 2)

Aboveground Piping

- Moderate surface corrosion typical throughout (VANDA 2)
- Significant corrosion at Pump #1 ARV tap to 10" discharge (VANDA 4)
- Corrosion at combination air valves for both discharge lines (VANDA 2)
- Cracked concrete at the first pipe support for all three assemblies due to spanning over an expansion joint

Wet Well

- T-lock liner appears to be in good condition with staining; concrete beneath is presumed to be in good condition (VANDA 2)
- Pump discharge piping is heavily corroded (VANDA 4)
- Vent piping moderately corroded throughout (VANDA 2)

Bypass Manhole

- Corrosion at manhole frame (VANDA 3)
- Liner is degraded and disbonding throughout, concrete appears to be moderately deteriorated (VANDA 3)
- No mortar at cone section, exposed aggregate





Site Photo 1



Site Photo 2



Spalling pocket on interior of south CMU wall



Efflorescence typical throughout interior CMU



Aboveground piping



Surface corrosion typical throughout piping







Corrosion staining from tap connection



Corrosion at ARV tap connection (Pump 1)



Corrosion at CAVs (typical)



Corrosion at CAVs (typical)



over expansion joint



Cracked concrete base at pipe supports spanning Crack in asphalt spanning from wet well structure towards the entrance gate (0.2")





Wet well exterior



Wet well interior



Wet well interior



Wet well interior



Heavy corrosion on pump discharge piping (VANDA 4; typical)



Pump discharge piping





Pump discharge piping (closeup)



Pump discharge piping (closeup)



Bypass MH exterior, corrosion at rim



Non-mortared joints with exposed aggregate



Bypass MH interior



Liner disbonding from concrete (typical)



UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max. Wall Loss (%)
1	Pump 1 (spool)	0.291	0.347	0.320	0.059	17%
2	Pump 3 (spool)	0.339	0.352	0.345	0.011	3%
3	Pump 1-2 discharge (spool)	0.437	0.456	0.446	0.023	5%
4	Pump 2-3 discharge (spool)	0.409	0.456	0.429	0.051	11%

DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 1 (spool)	2.7	15.9	10.0	6 to 9
2	Pump 3 (spool)	3.8	18.7	11.4	6 to 9
3	Pump 1-2 discharge (spool)	3.3	12.0	7.7	6 to 9
4	Pump 2-3 discharge (spool)	3.8	15.6	8.9	6 to 9

⁽¹⁾ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane

Recommendations

- 1. Replace the corroded threaded tap connection at Pump 1 ARV while ensuring proper isolation of dissimilar metals.
- 2. Re-coat aboveground piping with 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane. The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.
- 3. Repair cracked/broken concrete with Sika 223 or equal; provide a smooth finish to protect the concrete from moisture. Application shall not exceed the maximum application thickness specified by the manufacturer to prevent feathering (thin layers that will lead to cracking and delamination). Concrete repairs include the cracked concrete pipe supports for Pump #1-3 spanning over the expansion joint. Consider moving the pipe supports downstream to the opposite end of the spool.
- 4. Replace submersible pump discharge piping with fusion bonded epoxy-coated and lined steel piping.



5. Replace liner in the bypass manhole with a 100% solids epoxy or polyurethane coating. Acceptable products include Endura Flex 1200 and 1988 or Raven 155 and 405.



City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-4



Lift Station

Lift Station ID:
Location:
Assessment Date:
Assessed by:
Lift Station Type:
Pumps:

Discharge Piping:

Olivewood LS 33.940344°; -117.032122° 04.28.2020 Farshad Malek Submersible Pump Duty: Pump #1, Pump #2 Future: Pump #3 6" DIP



Sanitary Sewer / Location Map

Condition <u>Site</u>

Summary:

- CMU perimeter wall in good condition (VANDA 2) with minor efflorescence observed at the lower sections
- Pointing in fair condition
- Muddy, dirt ground surface with lots of tall weeds, good hiding spots for snakes.
- Equipment concrete pads in overall good condition (VANDA 2)

Aboveground Piping

- There is only factory coating applied to the piping, with only minimal surface corrosion observed (VANDA 2)
- Pipe supports are in good condition (VANDA 1)

Wet Well

- T-lock liner in good condition, moderate staining below waterline; concrete beneath is presumed to be in good condition (VANDA 2).
- Pump discharge piping in good condition (VANDA 2)





Site Photo 2



Pointing in fair condition



Concrete pads in good condition



Aboveground piping



Aboveground piping



Only factory coating applied



Minimal surface corrosion typical at flanges





Cracking external rubber seals (typical)



Wet well exterior



Wet well interior



Pump discharge piping, minor corrosion at bolts/flanges



Wet well interior (closeup)



Wet well interior (closeup)



UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max. Wall Loss (%)
1	Pump 1 (spool)	0.249	0.301	0.275	0.031	11%
2	Pump 2 (spool)	0.311	0.335	0.321	0.029	8%
3	Common discharge	0.293	0.348	0.315	0.047	14%

DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 1 (spool)	5.0	15.3	9.3	6 to 9
2	Pump 2 (spool)	6.8	14.2	9.4	6 to 9
3	Common discharge	2.7	7.8	5.5	6 to 9

⁽¹⁾ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane

Recommendations

- 1. Consider paving the surface of the site and/or providing site maintenance to keep weeds short and reduce risk of snakes and other animals in hiding.
- 2. Apply 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane to the aboveground piping (SST not included). The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.

City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-5

Item 4.



Lift Station

Lift Station ID:	Be
Location:	33
Assessment Date:	04
Assessed by:	Fa
Lift Station Type:	No
Pumps:	Dι

Discharge Piping:

Beaumont Mesa LS 33.940400°; -117.015966° 04.28.2020 Farshad Malek Non-Submersible Pump Duty: Pump #1, Pump #2 Out of Service: Pump #3, Pump #4 10", 14"



Sanitary Sewer / Location Map

Condition <u>Site</u>

- Summary:
- CMU perimeter wall in good condition (VANDA 2) with efflorescence typical throughout
 - Pointing in good condition
- Gravel surface with lots of tall weeds, good hiding spots for snakes.
- Concrete pads in overall good condition (VANDA 2)

Aboveground Piping

- Overall good condition with surface corrosion typical at bolts/flanges (VANDA 2)
- Moderate corrosion throughout all four combination air valves (VANDA 2)
- Cracked concrete pipe supports
 - Pump 1 beneath ARV
 - Pump 2 beneath ARV
 - Pump 2 from bolts going into concrete base
- Aboveground Biofilter with PVC piping and plastic storage tanks, SST hardware in good condition

Dry Well/Belowground Piping

- Cracked/peeling coating with corrosion evident throughout the swinging gate atop the Dry Well structure
- Sounding indicated solid concrete; delamination or shallow subsurface anomalies were not indicated (VANDA 2)
- Piping in overall good condition (VANDA 2). Corrosion at stainless steel flanges and tie rods typical throughout piping due to contact between dissimilar metals
- Corrosion at Flygt Pump/Motor base plates, Pump #1 and Pump #2
- Mild corrosion Pump 3 shaft
- Sump pumps completely submerged and appear heavily corroded (VANDA 4)
- Shallow spalling observed from 0" 16" away from finished floor, east wall
- Efflorescence observed on the ceiling around each of the three large grated openings, presumably resulting from infiltration into small cracks
- pH measurements indicated atmospheric conditions inside of dry well to be negligible with respect to corrosion



Wet Well

- T-lock liner is disbonding at the top of the structure at opening
- Heavily corroded conduit (instrumentation) at top of wet well structure (VANDA 5)
- T-lock liner in fair condition, stained in some areas below the waterline; concrete beneath is presumed to be in good condition (VANDA 2)
- Liner is warped in some areas however no punctures or tears were observed
- Influent piping is heavily corroded (VANDA 4)
- Corrosion product from influent piping 3" to 4" bleeding down the southwest wall

Bypass Manholes

- Bypass MH #1 (westernmost, closes to entrance gate)
 - Heavy corrosion on underside of lid (VANDA 4)
 - Aged liner disbonding from the concrete near the rim
 - Exposed aggregate typical throughout unlined bench (VANDA 4)
- Bypass MH #2
 - High H2S alarm from gas meter while standing over opened manhole
 - Liner is disbonding from the concrete
 - Joints are not mortared
- Bypass MH #3
 - Liner in fair condition
 - Exposed aggregate typical throughout unlined bench (VANDA 4)
- Bypass MH #4
 - Liner in fair condition
 - Exposed aggregate typical throughout unlined bench (VANDA 4)



Site Photo 1

Site Photo 2





Efflorescence typical throughout CMU (typical)



Pointing in good condition



Aboveground piping



Aboveground piping



Corrosion typical where there is contact between dissimilar metals



Corrosion typical at bolts/flanges (likely due to dissimilar metals)

Aboveground Biofilter

Corrosion at CAVs (closeup)





Cracking at pipe support concrete bases (typical)



Corrosion at CAVs (typical)





Cracked concrete pipe support (Pump 1)











Biofilter SST hardware in good condition



Dry well access swing gate corroded throughout



Dry well interior



Dry well interior



Pump Assembly #1

Pump Assembly #2





Pump Assembly #3 & #4



Corrosion typical at SST flanges and tie rods, dissimilar metals



Corrosion at pump/motor base plates (Pumps #1-2)



Corrosion on pump shaft (Pump 4)



Corrosion typical on hardware at flexible couplings



Pipe supports in good condition







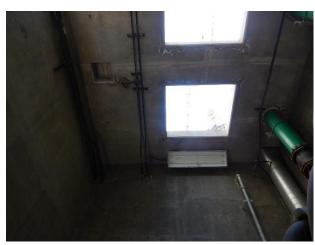
Sump pumps submerged, corroded



Steel ladder in good condition



Spalling typical at 0" – 16" AFF, east wall



Efflorescence on ceiling around openings



Liner disbonding at top of the structure



Corroded instrumentation conduit







Wet well interior



Wet well interior



Wet well influent pipe



Influent pipe, heavy corrosion (closeup)



Corrosion staining on southwest wall



Bypass MH #1 location

581

ltem 4.

Item 4.



V&A

Heavy corrosion on underside of lid



Aged liner disbonding near the rim



Exposed aggregate typical throughout bench



Bypass MH #2 exterior



Liner disbonding from the concrete



Bypass MH #3 location







X&**V**



Bypass MH #3 interior

Bypass MH #4 location

Bypass MH #4 interior (closeup)



Bypass MH #4 interior

Concrete Penetration Testing Results:

Location	Penetration Depth (in.)	Surface pH	Depth pH	Remarks
Center of West Wall 5.5-ft AFF, Dry Well	1/16	11	12	Atmospheric conditions were negligible with respect to effect on corrosion



UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max. Wall Loss (%)
1	South discharge, 10" (spool); aboveground	0.349	0.355	0.352	0.001	0%
2	North discharge, 14" (spool); aboveground	0.434	0.448	0.442	0.016	4%
3	Pump 2 suction, 10" (spool); dry well	0.406	0.440	0.421	0.034	8%
4	Pump 3 suction, 16" (spool); dry well	0.442	0.468	0.450	0.018	4%

DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	South discharge, 10" (spool); aboveground	13.5	18.9	16.4	6 to 9 ⁽¹⁾
2	North discharge, 14" (spool); aboveground	7.1	13.7	10.8	6 to 9 ⁽¹⁾
3	Pump 2 suction, 10" (spool); dry well	17.3	28.1	22.5	8 to 12 ⁽²⁾
4	Pump 3 suction, 16" (spool); dry well	12.9	13.5	13.2	8 to 12 ⁽²⁾

⁽¹⁾ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane

⁽²⁾ Piping not exposed to sunlight is recommended to have 8 to 12 mils of epoxy coating

Recommendations

- 1. Consider paving the surface of the site and/or providing site maintenance to keep weeds short and reduce risk of snakes and other animals in hiding.
- 2. Touch up aboveground pipe coating as needed with 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane. The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.



- 3. Repair cracked/broken concrete pipe supports with Sika 223 or equal; provide a smooth finish to protect the concrete from moisture. Application shall not exceed the maximum application thickness specified by the manufacturer to prevent feathering (thin layers that will lead to cracking and delamination).
- 4. Touch up pipe coating as needed in dry well with two coats at 4 to 6 mils each of a surface tolerant epoxy. Acceptable products include Carboline Carboguard 891 VOC, PPG Amerlock 400, or Tnemec L69 Hi Build Epoxoline II. The surfaces will have to be prepared per SSPC SP11 Power Tool Cleaning to Bare Metal for proper adhesion and coating longevity.
- 5. Chip away damaged concrete on lower east wall inside of the dry well and patch with Sika 223 or similar cementitious patching material; provide a smooth finish to protect the concrete from moisture. Application shall not exceed the maximum application thickness specified by the manufacturer to prevent feathering (thin layers that will lead to cracking and delamination).
- 6. Repair liner at the top of the wet well with Sancon 100 or similar.
- 7. Replace corroded instrumentation conduit inside of the wet well.
- 8. Coat the wet well inlet pipe with a 100% solids epoxy or polyurethane coating. Acceptable products include Endura Flex 1200 and 1988 or Raven 155 and 405.
- 9. Replace liner in the Bypass MH #1 and MH #2 with a 100% solids epoxy or polyurethane coating. Acceptable products include Endura Flex 1200 and 1988 or Raven 155 and 405.
- 10. Mortar the bench of Bypass MH #3 and MH #4 to cover exposed aggregate and provide a smooth watertight seal to protect the concrete from moisture, Acceptable products include Sika 223 or equal. Application shall not exceed the maximum application thickness specified by the manufacturer to prevent feathering (thin layers that will lead to cracking and delamination). Apply a 100% solids epoxy or polyurethane coating to the repaired area. Acceptable products include Endura Flex 1200 and 1988 or Raven 155 and 405



City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-6



Lift Station

Lift Station ID: Location: Assessment Date:	Noble Creek LS 33.944963°; -117.001321° 04.29.2020
Assessed by:	Farshad Malek
Lift Station Type:	Submersible Pump
Pumps:	Duty: Pump #2, Pump #3
	Future: Pump #1

Discharge Piping:

12" DIP



Sanitary Sewer / Location Map

Condition Site

- Summary:
- Fencing in good condition, 3-layer barbed wire with minimal surface corrosion . (VANDA 2)
- Asphalt in overall fair condition, large cracks (0.2") spanning east-west near the ٠ entrance, from the corners of the wet well pad, and from the bypass MH
- Concrete pads in overall good condition (VANDA 2)

Aboveground Piping

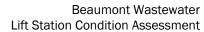
- Moderate surface corrosion typical throughout (VANDA 3) •
- Surface corrosion covering surface of flowmeter (VANDA 3)
- Pipe supports are in good condition, well coated •

Wet Well

- T-lock liner appears to be in good condition with staining and debris; concrete • beneath is presumed to be in good condition (VANDA 2)
- High density of small patchwork applied to wall, indicative of an aged structure.
- Pump discharge piping is heavily corroded (Pump #1: VANDA 4, Pumps #2-3: • VANDA 3)

Bypass Manhole

- T-lock liner in good condition, no defects noted; concrete beneath is presumed to • be in good condition (VANDA 1)
- **EPDM** ladder rungs •







Site Photo 1





Perimeter fencing, barbed wire with minimal corrosion



Cracking in asphalt near entrance



Cracking in asphalt from Wet Well and Bypass MH



Aboveground piping



V&A Project No. 19-0280

Surface corrosion on transformer



Surface corrosion typical throughout piping



Corrosion throughout flowmeter



Pipe supports in good condition



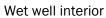


5.1





Wet well exterior





Wet well interior



Wet well inlet (closeup)



PVC liner appears to be in good condition



Pump #1 discharge piping (closeup)





Pump #2 discharge piping (closeup)



Pump #3 discharge piping (closeup)



Bypass MH exterior



Manhole rim



Bypass MH interior



Bypass MH interior

UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max. Wall Loss (%)
1	Pump 2 (spool)	0.308	0.358	0.334	0.062	17%
2	Pump 3 (spool)	0.350	0.365	0.357	0.020	5%
3	Common discharge	0.438	0.472	0.455	0.052	11%
4	Discharge flowmeter ⁽¹⁾	-	-	0.117	-	-

⁽¹⁾ Single point reading taken at crown of flowmeter

DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 2 (spool)	7.5	12.0	9.3	6 to 9
2	Pump 3 (spool)	8.1	9.5	8.5	6 to 9
3	Common discharge	6.3	9.5	8.4	6 to 9

⁽¹⁾ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane

Recommendations

- 1. Re-coat aboveground piping with 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane. The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.
- 2. Replace submersible pump discharge piping with fusion bonded epoxy-coated and lined steel piping.

City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-7





Lift Station

Lift Station ID: Location: Assessment Date: Assessed by: Lift Station Type: Pumps:	Marshall Creek LS 33.940554°; -116.998411° 04.29.2020 Farshad Malek Submersible Pump Pump #1: Out of service Pump #2: Abandoned
	Pump #3: In service

Discharge Piping:

10" & 12" DIP



Sanitary Sewer / Location Map

Condition Site

Summary:

- Perimeter fencing in good condition (VANDA 2)
- ~3-ft tall retaining wall on east perimeter minor efflorescence (VANDA 2) •
- Asphalt in overall fair condition, large cracks (0.2") typical leading from corners of • structures (wet well pad, generator pad, transformer pad)
- Concrete pads in overall good condition (VANDA 2) •

Aboveground Piping

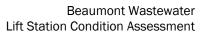
- Moderate surface corrosion typical throughout (VANDA 3), covering roughly 10% of the surface area
- Minor surface corrosion observed on pipe supports (VANDA 2) •

Wet Well

- T-lock liner appears to be in good condition with staining and debris below waterline; concrete beneath is presumed to be in good condition (VANDA 2)
- High density of small patchwork applied to wall, indicative of an aged structure.
- Pump discharge piping is heavily corroded (VANDA 4) •

Bypass Manholes

- Bypass MH #1 (south): •
 - Unlined, concrete is in overall good condition (VANDA 2)
 - Exposed circumferential reinforcement in cone section
- Bypass MH #2 (mid) .
 - Liner is in good overall condition, however there appears to be small tears exposed concrete within 3-ft of the bench; concrete beneath is presumed to be in good condition (VANDA 2)
- Bypass MH #3 (north) is welded shut, could not be opened







Site Photo 1



Site Photo 2



Aboveground piping



Aboveground piping



Cracked/peeling coating with corrosion typical throughout piping



Aboveground piping

595

Item 4.





Surface corrosion typical throughout piping



Surface corrosion (closeup)



Wet well exterior



Wet well interior



Wet well interior (closeup)



Pump discharge piping





Pump discharge piping (closeup)



Pump discharge piping (closeup)



Pump discharge piping (closeup)



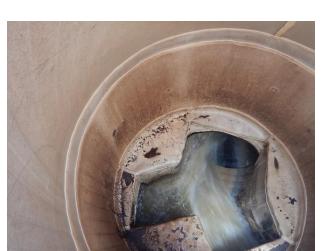
Pump discharge piping



Bypass MH #1 (south) location

V&A Project No. 19-0280

Manhole rim



Bypass MH #2 interior, small tears within 3-ft of the bench

Bypass MH #3 (north) welded shut with corrosion

UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max. Wall Loss (%)
1	Pump 1 (spool)	0.302	0.329	0.311	0.048	14%
2	Pump 2 (spool)	0.362	0.428	0.404	0.098	21%
3	Common discharge (east)	0.334	0.391	0.358	0.126	27%
4	Common discharge (west)	0.209	0.250	0.226	0.061	23%



V&A

Spiral reinforcement breaching concrete



Bypass MH #2 (mid) interior





DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 1 (spool)	5.9	13.1	8.1	6 to 9
2	Pump 2 (spool)	4.6	10.5	8.7	6 to 9
3	Common discharge (east)	10.7	14.4	12.4	6 to 9
4	Common discharge (west)	2.1	4.1	3.2	6 to 9

⁽¹⁾ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane

Recommendations

- 1. Re-coat aboveground piping with 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane. The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.
- 2. Replace submersible pump discharge piping with fusion bonded epoxy-coated and lined steel piping.
- 3. Patch-repair liner in Manhole #2 (mid). Acceptable products include Sancon 100 or equal.
- 4. Repair/replace lid and cover frame for Manhole #3 (north) so that it may be safely accessed. The lid would not budge after multiple attempts; the rim was moving with the lid during attempted removal.

City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-8



Lift Station

Lift Station ID: Location:	Cooper Creek (Industrial Park) LS Beaumont WWTP 33.923845°; -116.994839°
Assessment Date: Assessed by:	04.27.2020 Farshad Malek
Lift Station Type:	Submersible Pump
Pumps:	Duty: Pump #2, Pump #3
Discharge Piping:	Future: Pump #1 6" DIP



Sanitary Sewer / Location Map

Condition Aboveground Piping

Summary:

- Coating is thin throughout the piping assemblies with minor surface corrosion (VANDA 2) as well as factory coating visible through peeling/flaking top-coat
- Concrete pad is in good condition (VANDA 1)
- Pipe supports are in good condition

Wet Well

- T-lock liner is in good overall condition, no defects evident; concrete beneath is presumed to be in good condition (VANDA 2)
- Surface corrosion typical throughout pump discharge piping (VANDA 3)



Site Photo 1

Site Photo 2



Beaumont Wastewater Lift Station Condition Assessment V&A Project 19-0280



Aboveground piping



Surface corrosion typical throughout piping



Coating peeling/flaking at riser sections (typical)



Factory coating evident through thinned coating (typical)



Wet well pad in good condition



Wet well interior, topside







Wet well inlet



Pump discharge piping



Pump discharge piping (closeup)



Pump discharge piping (closeup)

UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max Wall Loss (%)
1	Pump 1 (spool)	0.311	0.335	0.323	0.029	9%
2	Pump 2 (spool)	0.309	0.334	0.319	0.031	9%
3	Pump 3 (spool)	0.334	0.343	0.339	0.006	2%
4	Common header	0.333	0.338	0.336	0.007	2%

DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 1 (spool)	3.7	10.9	6.2	6 to 9
2	Pump 2 (spool)	4.5	12.0	7.8	6 to 9
3	Pump 3 (spool)	7.6	10.0	9.1	6 to 9
4	Common header	5.1	9.1	7.7	6 to 9
5	Pump 1 Check Valve, factory coating	2.1	2.5	2.3	6 to 9

⁽¹⁾ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane

Recommendations

- 1. Re-coat aboveground piping with 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane. The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.
- 2. Monitor state of corrosion of discharge piping and plan to replace with fusion bonded epoxycoated and lined steel piping within the next 5 to 10 years.

City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-9



Item 4.



Lift Station

Lift Station ID:	Seneca Springs LS
Location:	33.918558°; -116.962058°
Assessment Date:	04.29.2020
Assessed by:	Farshad Malek
Lift Station Type:	Submersible Pump
Pumps:	Duty: Pump #1, Pump #2, Pump #3
	Standby: Pump #3, Pump #2, Pump #1
Discharge Piping:	8" DIP (x2)



Sanitary Sewer / Location Map

Condition Site

- Summary: Cl
 - CMU perimeter wall, overall fair condition (VANDA 3)
 - Pointing in fair to poor condition, cracking typical throughout
 - Minor efflorescence typical throughout
 - Asphalt in overall fair condition with cracking (0.2") typical leading from major equipment
 - Groundwater is reportedly causing differential settlement throughout the site which is in turn causing strain on equipment including piping, hose connections, a tilting transformer, and a ~3-inch deep pothole west of the wet well pad.
 - Concrete pads in overall good condition (VANDA 2)

Aboveground Piping

- Minor surface corrosion at bolts and flanges (VANDA 2)
- 2" brass backflow prevented in good condition (VANDA 2)
- 2" GSP Industrial Water in good condition (VANDA 2)
 - Line is dry, no tie-in to city water system (typical at all lift stations)
- Pipes are sagging heavily due to differential ground settlement
 - Additional supports are needed mid-span on Pump #1 and Pump #3 discharge piping ASAP
- Pipe support concrete bases for Pump #3 discharge piping broken
- Cracking typical at rubber flexible couplings due to stress and UV damage

Wet Well

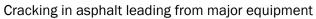
- T-lock liner is in overall good condition, no significant defects noted; concrete beneath is presumed to be in good condition (VANDA 1)
- Submersible pump discharge piping moderately corroded throughout (VANDA 3)

Bypass Manhole

- Liner is in overall good condition; concrete beneath is presumed to be in good condition (VANDA 1)
- Large joints left un-mortared at the cone



V&A Project No. 19-0280



Pothole west of wet well









Site Photo 2









Aboveground piping, sagging in the center (Pump Assembly #3)

Minor corrosion at bolts, flanges, plug valves



Cracking in rubber flexible couplings (typical)



(Pump Assembly #1)







Aboveground piping





Pump discharge piping

Item 4.



Pump discharge piping (closeup)



609



Pump discharge piping

Pump discharge piping

A STATE A



Wet well exterior







Bypass manhole exterior



Bypass MH rim, remnants of plastic film, unmortared joints



Bypass MH interior



Bypass MH interior (closeup)

UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max. Wall Loss (%)
1	Pump 1 (spool)	0.345	0.350	0.348	0.015	4%
2	Pump 2 (spool)	0.318	0.340	0.328	0.042	12%
3	Pump 3 (spool)	0.317	0.337	0.325	0.043	12%



DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 1 (spool)	8.3	14.2	11.2	6 to 9
2	Pump 2 (spool)	12.4	15.7	14.1	6 to 9
3	Pump 3 (spool)	7.8	14.7	11.3	6 to 9

⁽¹⁾ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane

Recommendations

- 1. Touch up aboveground piping as needed with 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane. The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.
- 2. Replace rubber flexible couplings showing cracks/UV damage.
- 3. Monitor state of corrosion of pump discharge piping within the wet well and plan to replace with fusion bonded epoxy-coated and lined steel piping within the next 5 to 10 years.
- 4. Mortar joints at the cone at the rim of the Bypass MH. Acceptable products include Sika 223 or similar. Provide a smooth finish to protect the concrete from moisture. Application shall not exceed the maximum application thickness specified by the manufacturer to prevent feathering (thin layers that will lead to cracking and delamination)
- 5. Investigate the extent and nature of the differential ground settlement. It appears piping is near a breaking point despite the use of flexible couplings; additional supports are needed ASAP. Differential settlement in electrical equipment may cause some connections to break – consult with an electrical engineer.

Item 4.

City of Beaumont Wastewater Master Plan Lift Station Condition Assessment

A-10



Lift Station

Lift Station ID:
Location:
Assessment Date:
Assessed by:
Lift Station Type:
Pumps:

Discharge Piping:

Four Seasons LS 33.906442°; -116.946850° 04.29.2020 Farshad Malek Submersible Pump Duty: Pump #1, Pump #2 Note: Pump #3 does not keep up with flow 14" & 8" DIP



Sanitary Sewer / Location Map

Condition <u>Site</u> Summary:

CMU perimeter wall

- Face of block is in fair condition, pointing is cracked with voids typical throughout (VANDA 3)
- The interior of the first half of the south wall <u>was never grouted</u>, caps for blocks can be easily lifted and inside of the CMU is empty. Due to the missing grout, the south wall shakes when the access gate is closed
- Asphalt in overall fair condition with cracking (0.2") leading from major equipment
- Concrete pads in overall fair condition (VANDA 3), cracking and localized areas with minor surface profile loss observed

Aboveground Piping

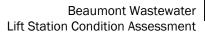
- Overall good condition, minor surface corrosion at bolts and flanges (VANDA 2)
- Localized corrosion where there is contact between dissimilar metals, multiple locations including at SST flanges
- Minor cracking at pipe supports
 - Pump #1 under 2nd ARV concrete support
 - Pump #2 under 1st ARV concrete support
 - Concrete base for metallic supports
- Minor wear typical at rubber flexible couplings presumably from UV damage

Wet Well

- T-lock liner stained throughout, particularly below the waterline (VANDA 2); concrete beneath is presumed to be in good condition (VANDA 2)
- Surface corrosion typical throughout pump discharge piping (VANDA 3)
- Vent piping corroded throughout (VANDA 3)

Bypass Manhole

- Liner is in overall good condition; concrete beneath is presumed to be in good condition (VANDA 2)
- Staining on the wall indicates a pinhole in the liner roughly 3 to 5 feet from the bench







Site Photo 1



Site Photo 2



Masonry wall cap loose



Missing grout inside of south wall



Mortared joints cracked with voids (typical)



Aboveground piping





Aboveground piping



Corrosion typical at bolts/flanges



Corrosion typical at bolts/flanges due to contact between dissimilar metals (including SST)



Dissimilar metal bolts/nuts used on SST pipe



Minor wear on rubber flexible couplings



Cracking under Pump #1 pipe support





Cracking under Pump #2 pipe support



Concrete base for metallic pipe supports



Wet well exterior



Wet well interior



Wet well interior (closeup)





Surface corrosion typical throughout pump discharge piping



Surface corrosion typical throughout pump discharge piping



Pump discharge piping (closeup)



Pump discharge piping (closeup)



Pump discharge piping (closeup)

V&A Project No. 19-0280



Bypass Manhole exterior





Bypass Manhole rim/cone section



Bypass Manhole bench and invert

UT Data:

Band	Piping	Minimum (inches)	Maximum (inches)	Average (inches)	Max. Wall Loss (in.)	Max. Wall Loss (%)
1	Pump 1 (spool)	0.418	0.448	0.432	0.032	7%
2	Pump 2 (spool)	0.376	0.380	0.378	0.014	4%
3	Pump 3 (spool)	0.307	0.375	0.348	0.053	15%

DFT Data:

Band	Piping	Minimum (mils)	Maximum (mils)	Average (mils)	Recommended thickness (mils)
1	Pump 1 (spool)	10.3	13.8	12.3	6 to 9
2	Pump 2 (spool)	9.5	8.0	8.5	6 to 9
3	Pump 3 (spool)	10.1	8.9	11.9	6 to 9

 $^{(1)}$ Piping exposed to sunlight is recommended to have 4 to 6 mils of epoxy coating with an additional 2 to 3 mils of aliphatic polyurethane



Item 4.

Recommendations

- 1. Provide proper isolation where dissimilar metals are in contact.
- 2. After isolation has been provided, touch up aboveground piping as needed with with 4 to 6 mils of epoxy coating and 2 to 3 mils of aliphatic polyurethane. The surfaces shall be prepared per SSPC SP11 Power Tool Cleaning to bare metal for proper adhesion and coating longevity.
- 3. Replace rubber flexible couplings showing cracks/UV damage.
- 4. Monitor state of corrosion of pump discharge piping within the wet well and plan to replace with fusion bonded epoxy-coated and lined steel piping within the next 5 to 10 years.
- 5. Patch-repair the pinhole in the liner inside of the bypass manhole. Acceptable products include Sancon 100 or equal.



APPENDIX H

Capital Improvement Program Project Sheets

PROJECT S1

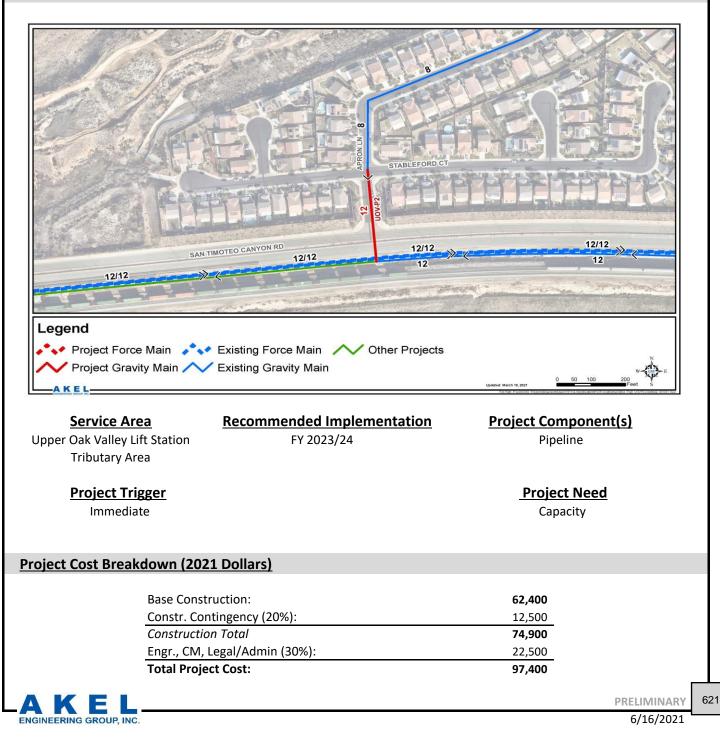


Apron Lane Pipeline Replacement

Project Background

This project includes the replacement of existing 8-inch gravity main with a new 12-inch gravity main along Apron Lane from Stableford Court to San Timoteo Canyon Road. This project is intended to mitigate an existing system deficiency.

Project Description



PROJECT S2

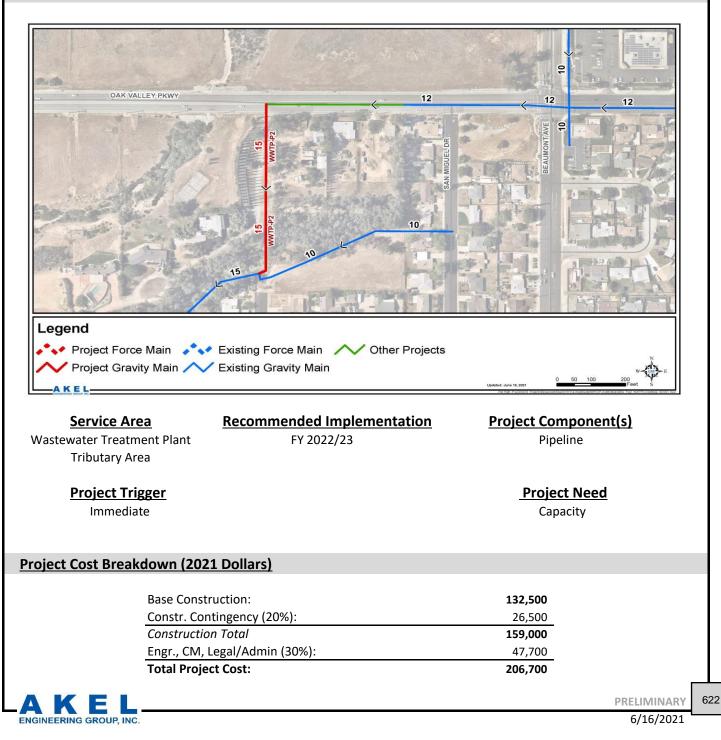


Oak Valley Parkway/Edgar Avenue Pipeline Replacement

Project Background

This project includes the replacement of an existing 12-inch gravity with new 15-inch gravity mains in Edgar Avenue from Oak Valley Parkway to approximately 575-feet south of Oak Valley Parkway. This project is intended to mitigate an existing system deficiency.

Project Description



PROJECT S3

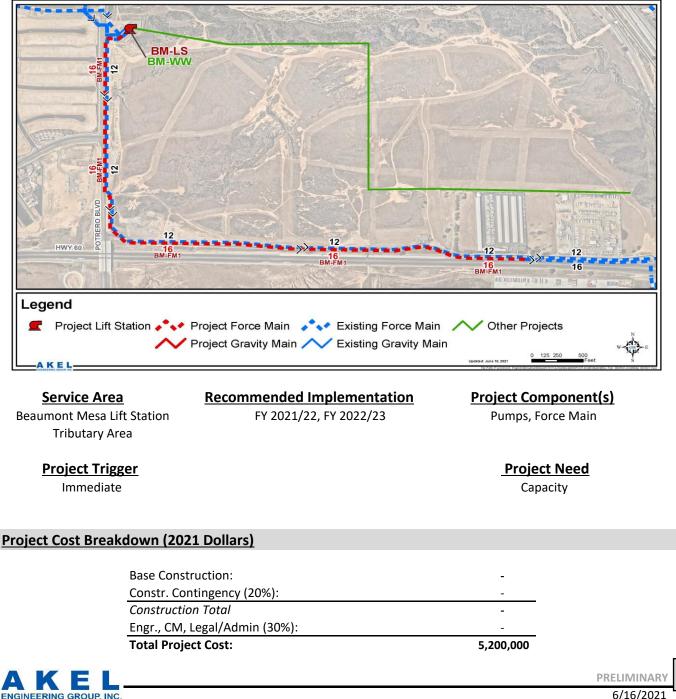


Beaumont Mesa Lift Station and Force Main Improvements

Project Background

This project includes the force main and pump design, construction of a new 16-inch force main, replacement of new pumps. The new 16-inch force main, constructed along Potrero Boulevard and Western Knolls Avenue, will connect the Beaumont Mesa Lift Station to a partially completed 16-inch force main. This project is intended to mitigate an existing system deficiency. This project cost reflects City staff budgetary planning estimate provided by City staff on June 1, 2021.

Project Description



6/16/2021

PROJECT S4

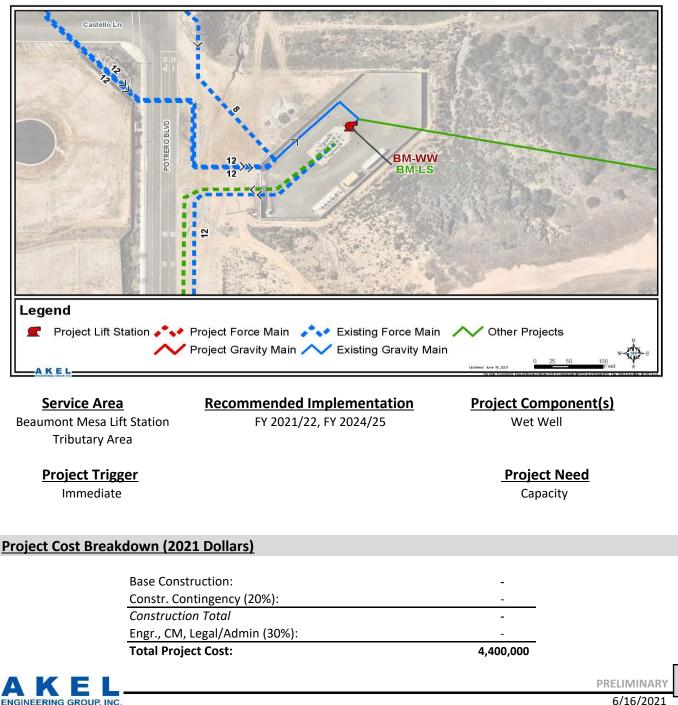


Beaumont Mesa Wet Well Improvement

Project Background

This project includes the wet well design, and construction of a new wet well. This project is intended to accommodate for future growth. This project cost reflects City staff budgetary planning estimate provided by City staff on June 1, 2021.

Project Description



	City of Beaumont Wastewater Mast	er Plan		Item
	PROJECT S5			
	CCTV Program			
Droject Beckground	cerviriogram			
Project Background				
	ng CCTV review of the City's Wastewater System every the tely 59 miles per year. This project cost reflects City staff			
Project Description				
Service Area	Recommended Implementation	Project Compo	<u>nent(s)</u>	
System Wide	FY 2023/24, FY 2029/30	Pipeline		
Ducient Trices		Due is at N	l	
Project Trigger		Project N		
-		Conditio	on	
Project Cost Breakdow	n (2021 Dollars)			
Dees	Construction			
	Construction:	-		
	str. Contingency (20%):			
	struction Total	-		
	., CM, Legal/Admin (30%):			
TOTA	Il Project Cost:	300,000		
	City of Beaumont Wastewater Mast	er Plan		
	City of Beaumont Wastewater Mast PROJECT S6 On-going Pipeline Replacement Pro-		BEAUMONT	
Project Background	PROJECT S6			
This project plans for as neede	PROJECT S6	Dgram Ilent to replacing one mil	EALIFORNIA e of 8-inch pipeline	
This project plans for as neede	PROJECT S6 On-going Pipeline Replacement Pro ed pipeline replacement and reflects a project cost equiva ects City staff budgetary planning estimate provided by C	Dgram Ilent to replacing one mil	e of 8-inch pipeline	
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			-
	City of Beaumont Wastewater Mast	er Plan	
	PROJECT S7	BEALIMON	
Lif	t Station Condition Assessment Imp	rovement	. <u> </u>
Project Background			
	t station improvements to include new electrical, nev This project cost reflects City staff budgetary planni		L,
Project Description			
<u>Service Area</u> System Wide	Recommended Implementation FY 2022/23 - FY 2030/31	Project Component(s) Lift Station	
Project Trigger		Project Need Condition	
Project Cost Breakdown (2	021 Dollars)		
	nstruction:	-	
	Contingency (20%): ction Total	<u> </u>	
	M, Legal/Admin (30%):	-	
	oject Cost:	3,600,000	

PROJECT S8

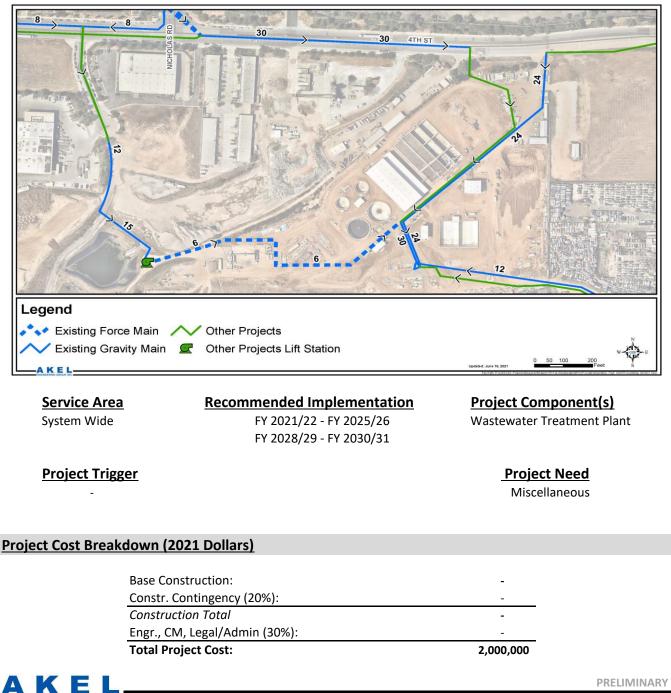


Wastewater Treatment Plant Improvements

Project Background

This project includes the wastewater rate study for FY2024 through FY2028, installation of flow meters at lift stations for I&I project, I&I system repairs, construction of new WWTP office and staff workspace building, replacement of WWTP UV bulb and RO module. This project cost reflects City staff budgetary planning estimate provided by City staff on June 1, 2021.

Project Description





Staff Report

- TO: City Council
- FROM: Jennifer Ustation, Finance Director

DATE February 1, 2022

SUBJECT: Contract Amendment with Webb Municipal Finance, LLC for Annual Community Facilities District (CFD) Administration Services, Special Tax Consultant Services and Annual CFD Financial Reporting Services

Background and Analysis:

On March 18, 2018, the City entered into a three-year contract with Albert A. Webb Associates. On May 21, 2018, the contract was assigned to Webb Municipal Finance LLC (Webb) due to their corporate restructure. The contract allows for the parties to engage in two separate one-year extensions. This contract is included as Attachment A to this report.

Webb provides community facilities district (CFD) administration services, special tax consultant services and directly assists the City in managing its CFD program. This includes preparing budgets, tabulating the annual assessment, responding to property owner inquiries, preparing all regulatory reporting and tracking payments for 81 independent assessments for the various CFDs and improvement areas.

Management has been very happy with the responsiveness, timeliness and above and beyond service level provided by Webb and requests the second and final one-year extension. Attachment B is a proposed second amendment to the contract, which extends the contract termination date from March 1, 2022, to March 1, 2023.

The schedule of assessment, improvement areas and the cost for a one-year extension is included as Attachment C and is referenced in the amendment. Webb is once again not requesting a fee increase per assessment for the FY2023 amendment.

Fiscal Impact:

All services related to the administration of the CFD program are financed through the CFD special taxes. There is no fiscal impact to the City's General Fund.

Recommended Action:

Approve the Second Amendment to the contract with Webb Municipal Finance, LLC.

Attachments:

- A. Original Contract with Webb Municipal Finance, LLC
- B. Second Amendment to contract with Webb Municipal Finance, LLC
- C. Cost schedule including the list of assessments to be managed by Webb

AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR

THIS AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR is made and effective as of the 1st day of March, 2018, by and between the CITY OF BEAUMONT ("CITY") whose address is 550 E. 6th Street, Beaumont, California 92223 and ALBERT A WEBB ASSOCIATES, whose address is 3788 McCray Street, Riverside, California 92506 ("CONTRACTOR").

RECITALS

This Agreement is entered into on the basis of the following facts, understandings and intentions of the parties to this Agreement:

A. CITY desires to engage CONTRACTOR to provide annual CFD administration services, special tax consultant services and annual CFD financial reporting services; and

B. CONTRACTOR has made a proposal ("Proposal") to the CITY to provide such professional services, which Proposal is attached hereto as Exhibit "A"; and

C. CONTRACTOR agrees to provide such services pursuant to, and in accordance with, the terms and conditions of this Agreement and Exhibit "A", and represents and warrants to CITY that CONTRACTOR possesses the necessary skills, licenses, certifications, qualifications, personnel and equipment to provide such services.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein, and mutual covenants contained herein, CITY and CONTRACTOR agree as follows:

1. <u>Term of Agreement</u>. This Agreement is effective as of the date first above written (the "effective date") and shall continue for a term of three (3) years unless terminated earlier pursuant to Section 9. This Agreement shall automatically terminate three (3) years after the effective date unless extended by the parties for up to two (2) one-year (1-year) extensions, each of which requires the approval of City Council of the CITY.

2. <u>Services to be Performed</u>. CONTRACTOR agrees to provide the services ("Services") described in this Agreement and Exhibit "A", including: annual CFD administration services, special tax consultant services and annual CFD financial reporting services and any other services which the City may request in writing from time to time. All Services shall be performed in the manner and according to the timeframe and for the fees set forth in the Proposal contained in Exhibit "A". CONTRACTOR designates Heidi Schoeppe, Director, as CONTRACTOR'S professional responsible for overseeing the Services provided by CONTRACTOR.

Item 5.

3. <u>Compensation</u>.

3.01 CITY agrees to pay CONTRACTOR fees for the actually performed and completed services described herein and in the Proposal attached as Exhibit "A", which fees shall not exceed \$185,450. CONTRACTOR shall be paid at the rates and fees set forth in the Proposal and shall not increase any rate or fee without the prior written consent of the CITY.

3.02 CONTRACTOR shall not be compensated for any Services rendered nor reimbursed for any expenses incurred in excess of those authorized in this Agreement and Exhibit "A" unless approved in advance by the CITY, in writing.

3.03 CONTRACTOR shall submit to CITY, on a quarterly basis, itemized invoices for the Services rendered in the previous three months. The CITY shall not be obligated to pay any invoice that is submitted more than sixty (60) days after the due date of such invoice. CITY shall have the right to review and audit all invoices prior to or after payment to CONTRACTOR. This review and audit may include, but not be limited to CITY's:

a. Determination that any fee or rate charged is consistent with this Agreement's approved rates and fees;

b. Determination that hours billed are accurate and reasonable;

c. Determination that each item charged is the usual, customary, and reasonable charge for the particular item. If CITY determines an item charged is greater than usual, customary, or reasonable, or is duplicative, ambiguous, excessive, or inappropriate, CITY shall either return the bill to CONTRACTOR with a request for explanation or adjust the payment accordingly, and give notice to CONTRACTOR of the adjustment.

3.04 If the work is satisfactorily completed, CITY shall pay such invoice within thirty (30) days of its receipt. Should CITY dispute any portion of any invoice, CITY shall pay the undisputed portion within the time stated above, and at the same time advise CONTRACTOR in writing of the disputed portion.

4. <u>Obligations of CONTRACTOR</u>.

4.01 CONTRACTOR agrees to perform all Services in accordance with the terms and conditions of this Agreement and the Proposal attached as Exhibit "A". In the event that the terms of the Proposal shall conflict with the terms of this Agreement, or contain additional terms other than the Services to be rendered and the price for the Services, the terms of this Agreement shall govern and said additional or conflicting terms shall be of no force or effect.

4.02 Except as otherwise agreed by the parties, CONTRACTOR will supply all personnel, materials and equipment required to perform the Services. CONTRACTOR shall provide its own offices, telephones, vehicles and computers and set its own work

hours. CONTRACTOR will determine the method, details, and means of performing the Services under this Agreement.

4.03 CONTRACTOR shall keep CITY informed as to the progress of the Services by means of regular and frequent consultations. Additionally, when requested by CITY, CONTRACTOR shall prepare written status reports.

4.04 CONTRACTOR is responsible for paying, when due, all income and other taxes, fees and withholding, including withholding state and federal taxes, social security, unemployment and worker's compensation, incurred as a result of the compensation paid under this Agreement. CONTRACTOR agrees to indemnify, defend and hold harmless CITY for any claims, costs, losses, fees, penalties, interest, or damages suffered by CITY resulting from CONTRACTOR's failure to comply with this provision.

4.05 In the event CONTRACTOR is required to prepare plans, drawings, specifications and/or estimates, the same shall be furnished in conformance with local, state and federal laws, rules and regulations.

4.06 CONTRACTOR represents that it possesses all required licenses necessary or applicable to the performance of Services under this Agreement and the Proposal and shall obtain and keep in full force and effect all permits and approvals required to perform the Services herein. In the event CITY is required to obtain an approval or permit from another governmental entity, CONTRACTOR shall provide all necessary supporting documents to be filed with such entity.

4.07 CONTRACTOR shall be solely responsible for obtaining Employment Eligibility Verification information from CONTRACTOR's employees, in compliance with the Immigration Reform and Control Act of 1986, Pub. L. 99-603 (8 U.S.C. 1324a), and shall ensure that CONTRACTOR's employees are eligible to work in the United States.

4.08 In the event that CONTRACTOR employs, contracts with, or otherwise utilizes any CalPers retirees in completing any of the Services performed hereunder, such instances shall be disclosed in advance to the CITY and shall be subject to the CITY's advance written approval.

4.09 Drug-free Workplace Certification. By signing this Agreement, the CONTRACTOR hereby certifies under penalty of perjury under the laws of the State of California that the CONTRACTOR will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code, Section 8350 et seq.) and will provide a drug-free workplace.

4.10 CONTRACTOR shall comply with all applicable local, state and federal laws, rules, regulations and deadlines applicable to, or governing the Services authorized hereunder.

5. <u>Insurance</u>. CONTRACTOR hereby agrees to be solely responsible for the health and safety of its employees and agents in performing the Services under this Agreement and

shall comply with all laws applicable to worker safety including but not limited to Cal-OSHA. Therefore, throughout the duration of this Agreement, CONTRACTOR hereby covenants and agrees to maintain insurance in conformance with the requirements set forth below. If existing coverage does not meet the requirements set forth herein, CONTRACTOR agrees to amend, supplement or endorse the existing coverage to do so. CONTRACTOR shall provide the following types and amounts of insurance:

5.01 Commercial general liability insurance in an amount of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate; CONTRACTOR agrees to have its insurer endorse the general liability coverage required herein to include as additional insureds CITY, its officials, employees and agents. CONTRACTOR also agrees to require all contractors and subcontractors to provide the same coverage required under this Section 6.

5.02 Business Auto Coverage in an amount no less than \$1 million per accident. If CONTRACTOR or CONTRACTOR's employees will use personal autos in performance of the Services hereunder, CONTRACTOR shall provide evidence of personal auto liability coverage for each such person.

5.03 Workers' Compensation coverage for any of CONTRACTOR's employees that will be providing any Services hereunder. CONTRACTOR will have a state-approved policy form providing statutory benefits as required by California law. The provisions of any workers' compensation will not limit the obligations of CONTRACTOR under this Agreement. CONTRACTOR expressly agrees not to use any statutory immunity defenses under such laws with respect to CITY, its employees, officials and agents.

5.04 Optional Insurance Coverage. Choose and check one: Required X /Not Required ____; Errors and omissions insurance in a minimum amount of \$2 million per occurrence to cover any negligent acts or omissions committed by CONTRACTOR, its employees and/or agents in the performance of any Services for CITY.

6. <u>General Conditions pertaining to Insurance Coverage</u>

6.01 No liability insurance coverage provided shall prohibit CONTRACTOR from waiving the right of subrogation prior to a loss. CONTRACTOR waives all rights of subrogation against CITY regardless of the applicability of insurance proceeds and shall require all contractors and subcontractors to do likewise.

6.02. Prior to beginning the Services under this Agreement, CONTRACTOR shall furnish CITY with certificates of insurance, endorsements, and upon request, complete copies of all policies, including complete copies of all endorsements. All copies of policies and endorsements shall show the signature of a person authorized by that insurer to bind coverage on its behalf.

6.03. All required policies shall be issued by a highly rated insurer with a minimum A.M. Best rating of "A:VII"). The insurer(s) shall be admitted and licensed to do business in California. The certificates of insurance hereunder shall state that coverage

shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits, except after thirty (30) days' prior written notice has been given to CITY.

6.04 Self-insurance does not comply with these insurance specifications. CONTRACTOR acknowledges and agrees that that all insurance coverage required to be provided by CONTRACTOR or any subcontractor, shall apply first and on a primary, non-contributing basis in relation to any other insurance, indemnity or self-insurance available to CITY.

6.05 All coverage types and limits required are subject to approval, modification and additional requirements by CITY, as the need arises. CONTRACTOR shall not make any reductions in scope of coverage (e.g. elimination of contractual liability or reduction of discovery period) that may affect CITY's protection without CITY's prior written consent.

6.06 CONTRACTOR agrees to provide immediate notice to CITY of any claim or loss against CONTRACTOR or arising out of the Services performed under this Agreement. CITY assumes no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve CITY.

7. Indemnification.

7.01 CONTRACTOR and CITY agree that CITY, its employees, agents and officials should, to the extent permitted by law, be fully protected from any loss, injury, damage, claim, lawsuit, cost, expense, attorneys' fees, litigation costs, defense costs, court costs or any other costs arising out of or in any way related to the performance of this Agreement by CONTRACTOR or any subcontractor or agent of either. Accordingly, the provisions of this indemnity are intended by the parties to be interpreted and construed to provide the fullest protection possible under the law to CITY. CONTRACTOR acknowledges that CITY would not enter into this Agreement in the absence of the commitment of CONTRACTOR to indemnify and protect CITY as set forth herein.

a. To the fullest extent permitted by law, CONTRACTOR shall defend, indemnify and hold harmless CITY, its employees, agents and officials, from any liability, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses, damages or costs of any kind, whether actual, alleged or threatened, actual attorneys' fees incurred by CITY, court costs, interest, defense costs, including expert witness fees and any other costs or expenses of any kind whatsoever without restriction or limitation to the extent incurred in relation to, as a consequence of or arising out of or in any way attributable actually, allegedly or impliedly, in whole or in part to the performance of this Agreement. CONTRACTOR's obligation to defend, indemnify and hold harmless shall include any and all claims, suits and proceedings in which CONTRACTOR (and/or CONTRACTOR's agents and/or employees) is alleged to be an employee of CITY. All obligations under this provision are to be paid by CONTRACTOR as they are incurred by CITY.

b. Without affecting the rights of CITY under any provision of this Agreement or this Section, CONTRACTOR shall not be required to indemnify and hold harmless CITY as set forth above for liability attributable solely to the fault of CITY, provided such fault is determined by agreement between the parties or the findings of a court of competent jurisdiction.

8. Additional Services, Changes and Deletions.

8.01 In the event CONTRACTOR performs additional or different services than those described herein without the prior written approval of the City Manager and/or City Council of CITY, CONTRACTOR shall not be compensated for such services. CONTRACTOR expressly waives any right to be compensated for services and materials not covered by the scope of this Agreement or authorized by the CITY in writing.

8.02 CONTRACTOR shall promptly advise the City Manager and Finance Director of CITY as soon as reasonably practicable upon gaining knowledge of a condition, event or accumulation of events which may affect the scope and/or cost of Services. All proposed changes, modifications, deletions and/or requests for additional services shall be reduced to writing for review and approval by the CITY and/or City Council.

9. <u>Termination of Agreement.</u>

9.01 Notwithstanding any other provision of this Agreement, CITY, at its sole option, may terminate this Agreement with or without cause, or for no cause, at any time by giving twenty (20) days' written notice to CONTRACTOR.

9.02 In the event of termination, the payment of monies due CONTRACTOR for undisputed Services actually performed prior to the effective date of such termination shall be paid within thirty (30) business days after receipt of an invoice as provided in this Agreement. Immediately upon termination, CONTRACTOR agrees to promptly provide and deliver to CITY all original documents, reports, studies, plans, specifications and the like which are in the possession or control of CONTRACTOR and pertain to CITY.

10. Status of CONTRACTOR.

10.01 CONTRACTOR shall perform the Services in CONTRACTOR's own way as an independent contractor, and in pursuit of CONTRACTOR's independent calling, and not as an employee of CITY. However, CONTRACTOR shall regularly confer with CITY's City Manager or his designee as provided for in this Agreement.

10.02 CONTRACTOR agrees that it is not entitled to the rights and benefits afforded to CITY's employees, including disability or unemployment insurance, workers' compensation, retirement, CalPers, medical insurance, sick leave, or any other employment benefit. CONTRACTOR is responsible for providing, at its own expense, disability, unemployment, workers' compensation and other insurance, training, permits, and licenses for itself and its employees and subcontractors.

10.03 CONTRACTOR hereby specifically represents and warrants to CITY that it possesses the qualifications and skills necessary to perform the Services under this Agreement in a competent, professional manner, without the advice or direction of CITY and that the Services to be rendered pursuant to this Agreement shall be performed in accordance with the standards customarily applicable to an experienced and competent professional rendering the same or similar services in the same geographic area where the CITY is located. Further, CONTRACTOR represents and warrants that the individual signing this Agreement on behalf of CONTRACTOR has the full authority to bind CONTRACTOR to this Agreement.

11. Ownership of Documents; Audit.

11.01 All draft and final reports, plans, drawings, studies, maps, photographs, specifications, data, notes, manuals, warranties and all other documents of any kind or nature prepared, developed or obtained by CONTRACTOR in connection with the performance of Services performed for the CITY shall become the sole property of CITY, and CONTRACTOR shall promptly deliver all such materials to CITY upon request. At the CITY's sole discretion, CONTRACTOR may be permitted to retain original documents, and furnish reproductions to CITY upon request, at no cost to CITY.

11.02 Subject to applicable federal and state laws, rules and regulations, CITY shall hold all intellectual property rights to any materials developed pursuant to this Agreement. CONTRACTOR shall not such use data or documents for purposes other than the performance of this Agreement, nor shall CONTRACTOR release, reproduce, distribute, publish, adapt for future use or any other purposes, or otherwise use, any data or other materials first produced in the performance of this Agreement, nor authorize others to do so, without the prior written consent of CITY.

11.03 CONTRACTOR shall retain and maintain, for a period not less than four years following termination of this Agreement, all time records, accounting records and vouchers and all other records with respect to all matters concerning Services performed, compensation paid and expenses reimbursed. At any time during normal business hours and as often as CITY may deem necessary, CONTRACTOR shall make available to CITY's agents for examination all of such records and shall permit CITY's agents to audit, examine and reproduce such records.

12. Miscellaneous Provisions.

12.01 This Agreement, which includes all attached exhibits, supersedes any and all previous agreements, either oral or written, between the parties hereto with respect to the rendering of the Services contemplated herein by CONTRACTOR for CITY and contains all of the covenants and agreements between the parties with respect to the rendering of such Services in any manner whatsoever. Any modification of this Agreement will be effective only if it is in writing signed by both parties.

12.02 CONTRACTOR shall not assign or otherwise transfer any rights or interest in this Agreement without the prior written consent of CITY. Unless specifically

stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

12.03 CONTRACTOR shall timely file FPPC Form 700 Conflict of Interest Statements with CITY if required by California law and/or the CITY's conflict of interest policy.

12.04 If any legal action or proceeding, including an action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorneys' fees and costs, in addition to any other relief to which that party may be entitled.

12.05 This Agreement is made, entered into and shall be performed in the County of Riverside in the State of California and shall in all respects be interpreted, enforced and governed under the laws of the State of California.

12.06 CONTRACTOR covenants that neither it nor any officer or principal of its firm has any interest, nor shall they acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of their Services hereunder. CONTRACTOR further covenants that in the performance of this Agreement, no person having such interest shall be employed by it as an officer, employee, agent, or subcontractor.

12.07 CONTRACTOR has read and is aware of the provisions of Section 1090 et seq. and Section 87100 et seq. of the Government Code relating to conflicts of interest of public officers and employees. CONTRACTOR agrees that they are unaware of any financial or economic interest of any public officer or employee of the CITY relating to this Agreement. It is further understood and agreed that if such a financial interest does exist at the inception of this Agreement, the CITY may immediately terminate this Agreement by giving notice thereof. CONTRACTOR shall comply with the requirements of Government Code section 87100 et seq. and section 1090 in the performance of and during the term of this Agreement.

12.08 Improper Consideration. CONTRACTOR shall not offer (either directly or through an intermediary) any improper consideration such as, but not limited to, cash, discounts, services, the provision of travel or entertainment, or any items of value to any officer, employee or agent of the CITY in an attempt to secure favorable treatment regarding this Agreement or any contract awarded by CITY. The CITY, by notice, may immediately terminate this Agreement if it determines that any improper consideration as described in the preceding sentence was offered to any officer, employee or agent of the CITY with respect to the proposal and award process of this Agreement or any CITY contract. This prohibition shall apply to any amendment, extension or evaluation process once this Agreement or any CITY officer, employee or agent to solicit (either directly or through an intermediary) improper consideration from CONTRACTOR.

(Signature Page Follows)

IN WITNESS WHEREOF, the parties hereby have made and executed this Agreement to be effective as of the day and year first above-written.

CITY:

CITY OF BEAUMONT

CONTRACTOR:

Albert A Webb Associates

anell By: Mayor

By: <u>Heide Schooppe</u> Print Name: <u>Heidi Schooppe</u> Title: <u>Director</u>, <u>Municipal Finance</u>

SECOND AMENDMENT TO AGREEMENT FOR INDEPENDENT CONTRACTOR

THIS SECOND AMENDMENT TO AGREEMENT OF SERVICES BY INDEPENDENT CONTRACTOR ("Amendment") is made and effective as of the 1st day of February 2022 by and between the CITY OF BEAUMONT ("CITY"), a general law city, and Webb Municipal Finance, LLC ("CONTRACTOR"). In consideration of the mutual promises and purpose contained herein, the parties agree as follow:

RECITALS

This Second Amendment is made with respect to the following facts and purpose that the parties agree are true and correct:

- A. for CFD administration services, special tax consultant services and annual CFD financial reporting services, which remains in effect.
- B. On May 21, 2018, the City and Webb assigned the Agreement to Webb Municpal Finance, LLC (Contractor).
- C. Per section 1 of the Agreement, the Parties now wish to extend the term of the Agreement for one-year, to terminate on March 1, 2023 unless otherwise extended or terminated. Contractor has provided a Schedule of Services, a copy of which is attached hereto as Exhibit "A" and incorporated herein by this reference, to extend the term of the Agreement.

AMENDMENT

The Agreement is hereby amended as follows:

A. Section 1 Term of Agreement. Term of the Agreement is amended to add the following paragraph to the end of existing Section 1:

"The term of this Agreement is extended, and the Agreement shall remain in effect until March 1, 2023, unless otherwise terminated or extended."

B. The recitals to this Amendment are deemed incorporated herein by this reference. All other terms of the Agreement not expressly amended by this Amendment shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereby have made and executed this Amendment to be effective as of the day and year first above-written.

[Signatures on following page]

SIGNATURE PAGE TO AMENDMENT TO AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR (Webb Municipal Finance, LLC)

CITY OF BEAUMONT

CITY:

CONTRACTOR:

CITY OF BEAUMONT

Webb Municipal Finance, LLC

By: _____

Lloyd White, Mayor

By: _____

Print Name: _____

Title:

ATTEST:

By:_____

Steven Mehlman, City Clerk

APPROVED AS TO FORM:

By: _____

John O. Pinkney, City Attorney

City of Beaumont FY 2022-2023

Count	Phase Code	Phase Name	Phase Budget
1	IA1	CFD 93-1 IA 1	\$3,960.00
2	IA2	CFD 93-1 IA 2	\$3,960.00
3	IA3	CFD 93-1 IA 3	\$3,960.00
4	IA3S	CFD 93-1 IA 3 Service	\$1,145.00
5	IA4	CFD 93-1 IA 4	\$3,960.00
6	IA5	CFD 93-1 IA 5	\$3,960.00
7	IA6A	CFD 93-1 IA 6A	\$3,960.00
8	IA6A1	CFD 93-1 IA 6A1	\$3,960.00
9	IA6A1S	CFD 93-1 IA 6A1 Service	\$1,145.00
10	IA6B	CFD 93-1 IA 6B	\$0.00
11	IA7A1	CFD 93-1 IA 7A1	\$3,960.00
12	IA7A1S	CFD 93-1 IA 7A1 Service	\$1,145.00
13	IA7B	CFD 93-1 IA 7B	\$3,960.00
14	IA7BS	CFD 93-1 IA 7B Service	\$1,145.00
15	IA7C	CFD 93-1 IA 7C	\$3,960.00
16	IA7CS	CFD 93-1 IA 7C Service	\$1,145.00
17	IA7D	CFD 93-1 IA 7D	\$3,960.00
18	IA7DS	CFD 93-1 IA 7D Service	\$1,145.00
19	IA8	CFD 93-1 IA 8	\$3,960.00
20	IA8S	CFD 93-1 IA 8 Service	\$1,145.00
21	IA8A	CFD 93-1 IA 8A	\$3,960.00
22	IA8AS	CFD 93-1 IA 8A Service	\$1,145.00
23	IA8B	CFD 93-1 IA 8B	\$3,960.00
24	IA8BS	CFD 93-1 IA 8B Service	\$1,145.00
25	IA8C	CFD 93-1 IA 8C	\$3,960.00
26	IA8CS	CFD 93-1 IA 8C Service	\$1,145.00
27	IA8D	CFD 93-1 IA 8D	\$3,960.00
28	IA8DS	CFD 93-1 IA 8D Service	\$1,145.00
29	IA8E	CFD 93-1 IA 8E	\$3,960.00
30	IA8ES	CFD 93-1 IA 8E Service	\$1,145.00
31	IA8F	CFD 93-1 IA 8F	\$3,960.00
32	IA8FS	CFD 93-1 IA 8F Service	\$1,145.00
33	IA9	CFD 93-1 IA 9	\$3,960.00
34	IA9S	CFD 93-1 IA 9 Service	\$1,145.00
35	IA10	CFD 93-1 IA 10	\$3,960.00
36	IA10S	CFD 93-1 IA 10 Service	\$1,145.00
37	IA11	CFD 93-1 IA 11	\$3,960.00
38	IA11S	CFD 93-1 IA 11 Service	\$1,145.00
39	IA12	CFD 93-1 IA 12	\$3,960.00
40	IA12S	CFD 93-1 IA 12 Service	\$1,145.00
41	IA13S	CFD 93-1 IA 13 Service	\$1,145.00
42	IA14S	CFD 93-1 IA 14 Service	\$1,145.00
43	IA14	CFD 93-1 IA 14	\$3,960.00
44	IA14A	CFD 93-1 IA 14A	\$3,960.00
45	IA14B	CFD 93-1 IA 14B	\$3,960.00
46	IA15S	CFD 93-1 IA 15 Service	\$1,145.00
47	IA16	CFD 93-1 IA 16	\$3,960.00
48	IA16S	CFD 93-1 IA 16 Service	\$1,145.00
49	IA17A	CFD 93-1 IA 17A	\$3,960.00

50	IA17AS	CFD 93-1 IA 17A Service	\$1,145.00
51	IA17B	CFD 93-1 IA 17B	\$3,960.00
52	IA17BS	CFD 93-1 IA 17B Service	\$1,145.00
53	IA17C	CFD 93-1 IA 17C	\$3,960.00
54	IA17CS	CFD 93-1 IA 17C Service	\$1,145.00
55	IA18	CFD 93-1 IA 18	\$3,960.00
56	IA18S	CFD 93-1 IA 18 Service	\$1,145.00
57	IA19A	CFD 93-1 IA 19A	\$3,960.00
58	IA19AS	CFD 93-1 IA 19A Service	\$1,145.00
59	IA19C	CFD 93-1 IA 19C	\$3,960.00
60	IA19CS	CFD 93-1 IA 19C Service	\$1,145.00
61	IA20	CFD 93-1 IA 20	\$3,960.00
62	IA20S	CFD 93-1 IA 20 Service	\$1,145.00
63	IA23S	CFD 93-1 IA 23 Service	\$1,145.00
64	16-1	CFD 2016-1	\$3,960.00
65	16-1S	CFD 2016-1 Service	\$1,145.00
66	16-2	CFD 2016-2	\$3,960.00
67	16-2S	CFD 2016-2 Service	\$1,145.00
68	16-2PS	CFD 2016-2 Public Service	\$1,145.00
69	16-3	CFD 2016-3	\$3,960.00
70	16-3S	CFD 2016-3 Service	\$1,145.00
71	16-3PS	CFD 2016-3 Public Service	\$1,145.00
72	16-4	CFD 2016-4	\$3,960.00
73	16-4S	CFD 2016-4 Service	\$1,145.00
74	16-4PS	CFD 2016-4 Public Service	\$1,145.00
75	18-1PS	CFD 2018-1 Public Service	\$1,145.00
76	19-1	CFD 2019-1	\$3,960.00
77	19-1S	CFD 2019-1 Service	\$1,145.00
78	19-1PS	CFD 2019-1 Public Service	\$1,145.00
79	21-1	CFD 2021-1	\$3,960.00
80	21-1S	CFD 2021-1 Service	\$1,145.00
81	21-1PS	CFD 2021-1 Public Service	\$1,145.00
Total			\$201,385.00



Staff Report

TO: City Council

FROM: Nicole Wheelwright, Deputy City Clerk

DATE February 1, 2022

SUBJECT: Appointment to the Beaumont Planning Commission

Background and Analysis:

A partial-term vacancy exists on the Beaumont Planning Commission due to the resignation of Commissioner Paul St. Martin. A notice of vacancy was posted in the newspaper and the City's social media platforms. Eight applications were received for consideration by City Council. The applicants are as follows:

David Getka Dr. Sedrick Bedolla Lamb Callum Eric Ustation Heather Uribe Elaine Morgan David Castaldo Michael Cannon

The term of this appointment will be through December 2022.

Fiscal Impact:

City staff estimates the cost to prepare this report to be \$95.

Recommended Action:

Conduct interviews and a nomination process for selection of a Planning Commissioner for the partial term through December 2022.

Attachments:

A. Applications

Nicole Wheelwright

From: Sent: To: Subject:	noreply@civicplus.com Thursday, January 6, 2022 10:31 AM Nicole Wheelwright Online Form Submittal: Planning Commission Appointment 2022 - Partial Term ending Dec 2022

Planning Commission Appointment 2022 - Partial Term ending Dec 2022

City Council will consider appointments to the Planning Commission on February 1, 2022 at 6:00p.m. during the Regular City Council Meeting.

First Name	David
Last Name	Getka
Primary Phone	
Alternate Phone	Field not completed.
Home Address	Beaumont, CA 92223
Address 2	Field not completed.
Email	
Occupation/Profession	Retired Business Professional and Former Texas City Councilman
Employer Name	David Getka
Are you 18 years of age or older?	Yes
Are you a resident in the City of Beaumont?	Yes
Questions	

Please answer the following questions which are intended to assist the City Council in assessing your qualifications and experience for the Planning Commission vacancy.

Are you aware of any
conflicts, financial or
otherwise, which could
affect your appointment as
a Planning Commissioner?I currently se
Committee a
required, in o
Commission.

I currently serve on the Beaumont Economic Development Committee and am willing to resign from this committee if required, in order to serve on the Beaumont Planning Commission. I believe my background experience and skill sets may better serve the city on the Planning Commission, however I can perform both duties as required in tandem if the City Council so desires.

I serve on the Beaumont Chamber of Commerce as an Ambassador and as a Director on the Board, but do not believe these positions pose any conflicts of interest for serving on the Planning Commission, and may even prove to be beneficial.

I am currently awaiting final board approval to join the San Gorgonio Memorial Hospital Foundation Board for 2022 and again do not foresee any potential conflicts of interest as it serves as a fund raising entity for the hospital.

Briefly state your qualifications, including any skills or background related to City Planning, development and building/construction: I am recently retired from the 3M Corporation (a Fortune 100 global company) after 37 years of service in sales and sales management which now allows me to dedicate my time and energies to serve the city and citizens of Beaumont.

I am a US Army, Army and Air Force National Guard Veteran having served approximately 10 years as a Non-Commissioned Officer with a Top Secret Clearance and hold three Honorable Discharges and am a member of the American Legion and the local San Gorgonio Pass A.L. Post.

I hold a B.B.A. from a University of Wisconsin and M.B.A. from Webster University, St. Louis.

I have served in a Texas public elected office as Town Councilman for four terms (approximately 8 years) and was President and Board member of the Lakewood Village Economic Development Corporation for 3 years. In these positions I was involved in working with large Texas land developers regarding holding public hearings, approving rezoning and proposed developer projects, planning and implementing improvement projects for community public parks and recreation, writing city ordinances, and involved with overseeing and managing the city water and waste treatment facilities. I was involved with approving the replacement project of the town's asphalt streets with new concrete paved road infrastructure and replacement of new designed street and road signage. As a smaller town, we elected council people wore many hats and were involved intimately with many of the town's operational functions and activities! Our newer town leadership including myself were highly transparent while performing our sworn duties as our town also suffered a previous embezzlement scandal with the prior town leadership!

I have served on the Beaumont Four Seasons Adult

Community ARC (Architectural Review Committee) involving reviewing and approving citizen's proposed property design improvements, additions, landscaping, etc.
I currently serve on the Beaumont Economic Development Committee and my duties and functions on this committee may actually enhance the duties on the Planning Commission and may provide additional insight on proposed community development projects to the commission.
I appreciate the City Council reviewing my application and look forward to having the opportunity to serve on the Beaumont Planning Commission.
I have lived in Beaumont for 3.5 years and my vision for the future of our city is one of cautious and controlled growth which takes into serious consideration the current city street, road, and highway infrastructure with which the city is now challenged with.
I also understand that we need to work in tandem with our neighboring cities such as Banning, Calimesa, and our unincorporated friends to the north, Cherry Valley. As the City Council and the EDC is aware, Banning's proposed mixed use light Industrial/retail project across from and adjacent to Sun Lakes and The Lakes adult communities has caused major public opposition for a multitude of reasons being health and welfare, public safety, environmental impact (noise, air, EMS access) and more traffic congestion, etc. I personally can attest after attending their city hall public hearings and living in Four Seasons in which our 3,600 residents will also be aversely impacted if the Banning Point project proceeds as planned.
The Banning City project proposal in my opinion is "what not to do" and should not have been approved by the Banning Planning Commission. I do watch some of their City Council and Planning Commission meetings on the public channel so I can keep abreast of potential impacts their planning and decision making have on our city.
One of the reasons I would like to serve on our Planning Commission is to avoid some recently approved projects that I was not pleased to see approved. The one recent approval was to allow a new Starbucks to replace the vacant Dennys property off of Hwy 79 and I-10 which I find the ingress and egress for that street will be an issue as the traffic load on Hwy 79 continues to worsen and that particular Starbucks will service primarily drive-through customers and add additional

stress to that poorly designed intersection and the already overtaxed Hwy 79 and I-10 interchange. Now if that street was connected to Pennsylvania or another eastern side street it may not present such a potential problem.

My vision and hope is that Beaumont will take a breath and pause, and carefully evaluate any future growth proposals and encourage more Office, Medical, Grocery, and appropriate retail commercial related projects along with properly sized residential projects in tandem along with continued road and highway infrastructure improvements. The City also needs to hold developer's feet to the fire to ensure the impact fees are in line with cities of comparable size and negotiate for assistance in funding some of the required and needed new infrastructure whether it is added parks or expanded utilities and new street improvements, etc. We need to attract more white collar businesses that Beaumont citizens can work at locally and not have to commute west, or south on the interstates, plus businesses that will attract and keep our younger generation living here and not moving to Orange or LA counties.

I would not want to see our city trying to compete with Banning on becoming the next Inland Empire warehouse and distribution hub which Banning is now touting and pursuing as their future vision.

We all live here and are currently impacted by our limited street and highway ingress and egress and I have noticed the truck traffic on Hwy 60, 79 and I-10 has increased dramatically in the last few years - even with the pandemic. With Banning's appetite to boost their city revenues it seems they will approve any project as long as they gain their impact fees and property taxes, etc. The city of Beaumont should not want to follow that growth model as their City Council seems to have ignored their several thousand citizens living off Sun Lakes Blvd. and that is a sad evolution and degradation of their quality of life!

I believe one of our best visions for the future is revitalizing our 6th street and Beaumont Avenue Downtown area. I think the best and fastest way to begin the process is if we can find an angel investor to focus on creating a dynamic new City Center by buying up the lands east of the Civic Center on both sides of 6th out to Applebee's. The idea is to develop an "upscale Condo/Apt/ retail shopping area with many new restaurant/bars with outside patios mixed in with small scale and new upscale modern condo/appts to attract young professionals to live, along with small boutique shops, a cleaners, hair salon, etc. If we were to develop a project like that , the current older shops and businesses down near Beaumont Ave. would attract other investors to purchase, renovate and improve as there would be a whole new economic energy created by the new city center. This concept is very popular back in Texas in a number of smaller cities that were looking to revitalize their downtown areas. Our downtown is not distinctive or centralized like Banning or Yucaipa, Palm Springs, etc. We need to create a new mini city center. There are properties such as the Flea Market, vacant land near Applebees, a large vacant Chinese Restaurant (been vacant for over 4 years?) an old struggling nursery (taking up a lot of land space) and a whole corridor that could serve as a New City Center with a mini pedestrian walking mall, etc.

Let's try to drive growth where we already have vacant lands and vacant properties which once consolidated and developed by the proper developer would change the face of Beaumont's Old/New Town for years to come!

If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"? Having lived here almost four years I believe the quality of life for our citizens has both improved and also degraded which would appear to be a contradiction. The city has brought in new retailers and businesses but perhaps not what we really need and hopefully with the recent Mountain Pass Demographic study and updated census we will attract higher quality and more attractive projects for our citizens. Do we really need another fast food or C-store/gas station?

The challenge with both residential and commercial growth is that there will be trade-offs and the City, EDC and Planning Commission must work together and determine a 5, 10, and 20 year growth plan and communicate it within so everyone is on the same page. We need to form a consensus among our citizens and businesses as to what the best path forward is. I fear that continued growth without the proper highway and road enhancements and improvements to accommodate such growth will actually drive people to leave especially the large senior population which live in both Beaumont and Banning.

Most of us moved here to get away from urban congestion and uncontrolled growth of distribution centers. I have a number of neighbors that moved here from Fontana, Ontario, Corona, etc. to escape the uncontrolled expansion of large mega warehouses and distribution centers invading once nice quiet residential and retail shopping areas. We do not want to force that onto our young families and senior citizens of Beaumont, do we?

If that is the future vision of our city leaders than I may be the wrong person to appoint to the Planning Commission.

	Quality of life is a balancing act between "progress" and "status quo". Our city's immediate challenge is to focus on improving our street and highway infrastructure as that has also become a major concern of potential new businesses such as sit-down restaurants and other higher quality retailers and specialty grocery chains. Highland Springs, Beaumont Ave./Hwy79 are major choke points at this time for our city. Future Planning Commission decisions and approvals MUST take these facts into account moving forward. I believe it is crucial we carefully weigh decisions using a cost/benefit rational in regards to "Quality of Life"!
What involvement do you currently have in the community?	 Member of the Beaumont City EDC. Ambassador and Board member of Beaumont Chamber of Commèrce - attend Beaumont new business open house ceremonies. Graduate of the first Beaumont Police Department Citizens Academy and pending CVP volunteer. Member of the California Community Economic Development Association Four Seasons Veterans Group Former Four Seasons ARC Committee Member San Gorgonio Pass American Legion member. Volunteer with the Annual Semetra Tukwet Golf Tournament (Qualifying tour for the LPGA) Volunteer with the Annual Morongo Tukwet Habitat for Humanity Charity Golf Tournament. Board Member - pending approval to serve on the San Gorgonio Memorial Hospital Foundation Board for 2022-2024. All of these positions are non-compensated and voluntary.
Additional Information	
Resume	Field not completed.
Additional Information	Field not completed.

Email not displaying correctly? View it in your browser.

From:	noreply@civicplus.com
Sent:	Thursday, January 6, 2022 3:53 PM
То:	Nicole Wheelwright
Subject:	Online Form Submittal: Planning Commission Appointment 2022 - Partial Term ending Dec 2022

Planning Commission Appointment 2022 - Partial Term ending Dec 2022

City Council will consider appointments to the Planning Commission on February 1, 2022 at 6:00p.m. during the Regular City Council Meeting.

First Name	Dr. Sedrick
Last Name	Bedolla
Primary Phone	
Alternate Phone	Field not completed.
Home Address	
Address 2	Beamont Ca. 92223
Email	
Occupation/Profession	Healthcare Administrator/Educator
Employer Name	Eisenhower Health/Southern Illinois University
Are you 18 years of age or older?	Yes
Are you a resident in the City of Beaumont?	Yes
	g questions which are intended to assist the City Council tions and experience for the Planning Commission
Are you aware of any conflicts, financial or otherwise, which could	No

affect your appointment as a Planning Commissioner?

Briefly state your qualifications, including any skills or background related to City Planning, development and building/construction:	I am employed by a very large healthcare facility where I participate in the planning, development and construction of large multimillion dollar construction and renovation projects. I am one of the expert consultants chosen by administration to discuss infrastructure and regulatory issues with contractors, inspectors and regulators. I also interface with front line workers seeking to understand what affects planning decisions will have on workflows. I have extensive experience in working with multidisciplinary teams working on complex problems. I have years of experience dealing with regulatory bodies. In my previous professional experience, I was part of a team that would help, plan design and construct new Home Depot stores, including many in Southern California.
What would your vision for Beaumont's future?	I would like to see the city of Beaumont continue to grow and thrive in a responsible manner. There has been much recent growth, but the planning for that growth and the infrastructure to support it does not seem adequate. I would like to participate in helping this beautiful city continue to grow while limiting any adverse effects of that growth. I would also like future developers to provide greater investment in our infrastructure.
If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"?	I would define quality of life for our citizens through two lenses. The first would be through our kids eyes. Quality would be goods schools, safe spaces and plenty of local activities and opportunities to share with my friends. The second lens of the adult, would be the availability of local services, employment without much traffic or crowding and plenty of safe areas for my children. A city where there are reasonable local taxes, and where the citizens saw value in the taxes they paid. And for all, a city where the residents felt safe.
What involvement do you currently have in the community?	I have volunteered as a board member for the local AYSO region 641 for the last 3 years. I also referee at many of the games. I have also volunteered to be a basketball coach for the local basketball program at the Chatigny Center. I have also participated in career fairs, book reading, and other activities at a local school in the community.
Additional Information	
Resume	Bedolla3[1169].docx
Additional Information	Field not completed.
Beaumont's future? If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"? What involvement do you currently have in the community? Additional Information Resume	have years of experience dealing with regulatory bodies. In my previous professional experience, I was part of a team that would help, plan design and construct new Home Depot stores, including many in Southern California. I would like to see the city of Beaumont continue to grow and thrive in a responsible manner. There has been much recent growth, but the planning for that growth and the infrastructure to support it does not seem adequate. I would like to participate in helping this beautiful city continue to grow while limiting any adverse effects of that growth. I would also like future developers to provide greater investment in our infrastructure. I would define quality of life for our citizens through two lenses. The first would be through our kids eyes. Quality would be goods schools, safe spaces and plenty of local activities and opportunities to share with my friends. The second lens of the adult, would be the availability of local services, employment without much traffic or crowding and plenty of safe areas for my children. A city where there are reasonable local taxes, and where the citizens saw value in the taxes they paid. And for all, a city where the least 3 years. I also referee at many of the games. I have also volunteered to be a basketball coach for the local basketball program at the Chatigny Center. I have also participated in career fairs, book reading, and other activities at a local school in the community.

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CAREER PROFILE

Collaborative and forward-thinking healthcare administrator and educator with twenty eight years' progressive experience in the government and nonprofit healthcare industry. Expertise in operational management, disaster planning, presentation, policy analysis, staff training, governmental regulations, and community resources. Proven record of cultivating positive employee relations and partnerships with healthcare providers. Responsive instructor and mentor to Master level students and Bachelors level programs. Doctoral coursework focused on leadership strategies to reduce preventable medical errors. Published Dissertation "Preventable Error Reduction Leadership Strategies of Nurse Managers in a Hospital Setting". Graduate work completed in health policy, financial management, and organizational excellence.

Technical Proficiencies: Microsoft Office (Word, Access, Excel, PowerPoint); Adobe Systems, EPIC and Cerner EMR's.

PROFESSIONAL HIGHLIGHTS

Clinical Administration

Clinical Excellence – Implemented healthcare administration projects including developing previously unserved respiratory service lines including interventional bronchoscopy, NICU and labor and delivery.

Growth Management – Developed growth strategies that enabled new service lines to be developed in Interventional Bronchoscopy, and relocated Pulmonary Lab to remove scheduling bottlenecks and increase patient capacity.

Multi-Department Management – Coordinated the development and expansion of the respiratory department; Began collaboration with pulmonary outpatient clinic and developed respiratory case management positions to aid in DME interface.

Communications – Create policy and procedural manuals; source documents including consent forms, correspondence, and emails; facilitate interdepartmental communications improving overall productivity and efficiency; strengthen community relations with healthcare providers.

Disaster Planning – Developed and used a disaster plan to respond to the Covid 19 Pandemic. Cultivated multiple supply chains, coordinated with multidisciplinary teams, and coordinated practices that enables the organization to respond to great influx of patients with no disruptions to patient care or compromise of staff safety.

Educator

Clinical Assistant Professor – Provides constructive and timely feedback to students seeking to obtain a Masters and Bachelor's degrees in healthcare related fields.

Respiratory Instructor – Identified and Implemented new modalities staff could adopt enabling staff to operate to the limits of their licensure. Fostered an open and engaging environment for students to thrive and flourish. Provided mentorship to BSRT students and provided several lectures for local schools.

Leadership - Provided clinical, budgetary and administrative guidance to administrative and healthcare staff of eighty-five.

PROFESSIONAL EXPERIENCE

Director of Respiratory Care, Pulmonary Services and Neurology

Eisenhower Health, Rancho Mirage, CA

- Provide administrative oversite of team of dynamic Respiratory Therapists, Registered Nurses, EEG Techs and Pulmonary Function Technicians in multiple departments in a 400 plus bed acute care hospital
- Develop, maintain, review and the implement policies and procedures for clinical activities, evaluations, in-service education and development of Performance Improvement standards.
- Develops and implements department capital and operational budgets.
- · Responsible for a multi-million dollar supply, equipment and payroll budget.
- Provides employee feedback and conducts formal counseling sessions as needed. Conducts formal evaluations annually for every staff member.
- Active leader within the hospital and a member of several key hospital committees such as, Professional Practice, Critical Care, Pulmonary Section, Quality, Leadership Development, Clinical Competency, Value Analysis, and Pharmacy and Therapeutics.
- Administrative Chair of the Opioid Stewardship Committee

September 2012 - Present

Sedrick Diego Bedolla •

Clinical Assistant Professor, for MHA and HCM programs Southern Illinois University (SIU) at Carbondale

- Developed new syllabus, and incorporated recent managerial and leadership challenges, guiding students to find solutions to complex problems in today's healthcare environment
- Provides timely and constructive feedback, keeping students interested and engaged in class work, discussions and research studies.
- Monitored students who initially struggled with material and provided insights and strategies that allowed them to successfully complete course work.

Respiratory Care Manager

White Memorial Medical Center, Los Angeles, CA

- Develop, maintain, review and the implement policies and procedures for clinical activities, evaluations, in-service education and development of Performance Improvement standards.
- Develops and implements department capital and operational budgets.
- Managed employee personnel and benefits files, and assisted in policy changes and updates based on federal and state . legislation.
- Served as HIPAA security officer and facilitated all HIPAA policies and practices to ensure agency remained in compliance.

Director of Clinical Education

Concorde Career College, San Bernardino, CA

- Developed instruction rubric for in-class and clinical courses.
- Supervised in-class and clinical instructors, filled in as in-class instructor when needed ٠
- Established relationships with partner hospitals to provide opportunities for clinical education
- . Organized student records and tracked clinical hours

Advanced Respiratory Instructor

Concorde Career College, San Bernardino, CA

- In class instructor for the advanced courses in Respiratory Therapy
- Developed lesson plans, graded projects, quizzes and tests
- Provided encouragement, feedback, and guidance to students

Cardiopulmonary Specialist

United States Air Force, Lackland AFB, TX

- Part of a Critical Care Air Transport Team (CCATT)
- Provided Cardiac, Respiratory, Operating Room and Emergency Medical Technician care and services

EDUCATION

Doctor of Business Administration with a specialization in Healthcare Management Walden University, Minneapolis, MN	2021
Master of Science in Business Administration University of Phoenix, Phoenix, AZ	2006
Bachelor of Science in Business Management University of Phoenix, Phoenix, AZ	2005
Associate of Cardiopulmonary Sciences Community College of the Air Force, Maxwell AFB, AL	2000
Associate of Allied Health Community College of the Air Force, Maxwell AFB, AL	1999

October 2002 - September 2012

November 2007 - October, 2010

April 2006- November, 2007

April 1993 - Jan 2002

May 2021 - Present

Sedrick Diego Bedolla •

Delta Mu Delta Honor Society American College of Healthcare Executives A.Y.S.O. Division Coordinator 2019 – present 2020 – present 2018 – present

From:	noreply@civicplus.com
Sent:	Tuesday, January 11, 2022 12:44 PM
То:	Nicole Wheelwright
Subject:	Online Form Submittal: Planning Commission Appointment 2022 - Partial Term ending Dec 2022

Planning Commission Appointment 2022 - Partial Term ending Dec 2022

City Council will consider appointments to the Planning Commission on February 1, 2022 at 6:00p.m. during the Regular City Council Meeting.

First Name	Callum
Last Name	Lamb
Primary Phone	
Alternate Phone	
Home Address	
Address 2	Field not completed.
Email	
Occupation/Profession	Systems Engineer and Consciousness Coach
Employer Name	Herman Weissker
Are you 18 years of age or older?	Yes
Are you a resident in the City of Beaumont?	Yes
Questions Please answer the following questions which are intended to assist the City Council in assessing your qualifications and experience for the Planning Commission vacancy.	
Are you aware of any conflicts, financial or otherwise, which could affect your appointment as	None

a Planning Commissioner?

Briefly state your qualifications, including any skills or background related to City Planning, development and building/construction:	 I've worked in engineering and construction for years; with me I bring a comprehensive understanding of what makes an ecosystem (of a business or a city) healthy. Some additional competencies I possess include: An understanding of traffic control and walkability planning. A career-path invested in the wellbeing of people. An understanding of emergent properties of systems - that it's the subtle things that make a place feel like magic.
What would your vision for Beaumont's future?	Beaumont is already fantastic. It's perhaps my favorite city I've ever lived in. My vision for Beaumont's future is more of what Beaumont is great at: Affordable yet beautiful housing. Local shops mixed in with franchises that give a unique feel and flavor. And a great place to raise children that's drive-able to more business-oriented locations. I could also see potential for a (mindful) expansion of beaumont in the future, making room for additional businesses as one of America's best places to live.
If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"?	Quality of life is a phrase representative of what it is to be in a given person's (or community's) shoes. That means the whole experience of their life. Specific to what a planning commission may be concerned with is housing, healthcare, and food affordability and quality, access to nature, education, walkability, quality grocery and shopping outlets, maintained roads and transportation system and safety within the community (low or no crime rate). Additionally, a sense of community and perhaps pride in the community is also important. I've noticed this is being continually cultivated through the various community and holiday events, which is fantastic.
What involvement do you currently have in the community?	Field not completed.
Additional Information	
Resume	Callum Lamb Resume.docx
Additional Information	Field not completed.

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From:	norepły@civicplus.com
Sent:	Saturday, January 22, 2022 1:08 PM
То:	Nicole Wheelwright
Subject:	Online Form Submittal: Planning Commission Appointment 2022 - Partial Term ending Dec 2022

Planning Commission Appointment 2022 - Partial Term ending Dec 2022

City Council will consider appointments to the Planning Commission on February 1, 2022 at 6:00p.m. during the Regular City Council Meeting.

First Name	Eric
Last Name	Ustation
Primary Phone	
Alternate Phone	Field not completed.
Home Address	
Address 2	Field not completed.
Email	
Occupation/Profession	Director of Local Intergovernmental Affairs
Employer Name	San Manuel Band of Mission Indians
Are you 18 years of age or older?	Yes
Are you a resident in the City of Beaumont?	Yes
Questions Please answer the following questions which are intended to assist the City Council in assessing your qualifications and experience for the Planning Commission vacancy.	

Are you aware of any conflicts, financial or otherwise, which could affect your appointment as a Planning Commissioner?

None that I am aware of. My wife works for the City of Beaumont in the Finance Department but does not have interaction with the Planning Commission.

Briefly state your qualifications, including any skills or background related to City Planning, development and building/construction:	I believe I have a unique set of skills and qualifications that would benefit the Planning Commission, and ultimately the City of Beaumont and its residents. For the past 20 years I have worked in both the public and private sectors and understand the intricacies and importance of communications and careful land use planning. While in the private sector, I learned how critically important efficient government regulations are when developing and operating a business. Clear, concise, and consistent communication between public agencies and the development community makes a city more attractive for investment.
	By working in the public sector, first in the Mayor's Office in the City of Riverside and then with the Riverside Transit Agency, I came to understand some of the realities of public governance - chiefly that there are many rules and regulations that must be considered and balanced when developing policy. It is this understanding of the balance between business interests and government regulations that I believe would be helpful to apply to the Planning Commission.
	My education background also provides me with an understanding of the dependencies between private business and public administration. I graduated with a degree in Political Science from UC San Diego and earned my MBA from Cal State San Bernardino.
What would your vision for Beaumont's future?	Beaumont is an amazing city with a bright future ahead of it. Recent population growth shows clearly that it is a destination for both families and business alike. I think Beaumont can continue to take advantage of what it is doing right and manage the coming growth through thoughtful development of forward thinking policies. I would recommend looking at how other cities have successfully managed growth and apply the lessons in Beaumont, tweaking them of course to our distinct opportunities and challenges.
If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"?	To me, quality of life can be defined as balance. Beaumont is growing because it a great place to raise a family, with good schools, high-quality of life, and recreational opportunities in a safe community setting. I think it will be important to carefully plan how to manage this growth so that it doesn't overwhelm City resources. Balanced land use decisions can be made so that residential, commercial, and industrial interests can all thrive, without conflicting with each other. Beaumont does not operate in a vacuum, and it is important to communicate with our municipal neighbors to ensure decisions made in one city will not negatively affect residents in another.

What involvement do you currently have in the community?	My kids have attended schools in Beaumont for the past 9 years and have been involved in various sports, many of which I helped coach. I was also appointed by former Mayor Brenda Knight to serve on a brief ad hoc committee that discussed fire safety in the city.
Additional Information	
Resume	Field not completed.
Additional Information	Field not completed.

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From:	noreply@civicplus.com
Sent:	Friday, January 21, 2022 1:11 PM
To:	Nicole Wheelwright
Subject:	Online Form Submittal: Planning Commission Appointment 2022 - Partial Term ending Dec 2022

Planning Commission Appointment 2022 - Partial Term ending Dec 2022

City Council will consider appointments to the Planning Commission on February 1, 2022 at 6:00p.m. during the Regular City Council Meeting.

First Name	Heather
Last Name	Uribe
Primary Phone	
Alternate Phone	Field not completed.
Home Address	Beaumont
Address 2	Field not completed.
Email	
Occupation/Profession	Preschool Director
Employer Name	Faith Lutheran Church
Are you 18 years of age or older?	Yes
Are you a resident in the City of Beaumont?	Yes
	g questions which are intended to assist the City Council tions and experience for the Planning Commission
Are you aware of any conflicts, financial or	No

1

otherwise, which could affect your appointment as a Planning Commissioner?

Briefly state your qualifications, including any skills or background related to City Planning, development and building/construction:	Masters Degree in Science of Education. I have lived in Beaumont since 2009 and have watched it grow tremendously in the last decade. I have operated a small business in the city of Beaumont from 2014-2021. I have 5 children that have attended Beaumont Unifed Schools, with one graduate who currently works at In-n-Out, a senior that graduates this year and 3 underclassmen. I have served on the Beaumont High School Boosters Club for Cheer the last 4 years as the President and treasurer, I also was the Cheer Coordinator and coached for the Junior All American Football and Cheer program in Beaumont. My husband works as a project manager for the Veterans Affairs in California, Nevada, Arizona and soon to be Texas divisions. I am passionate about my city and aiding in further city planning and infrastructure.
What would your vision for Beaumont's future?	My future plans for the beautiful city of Beaumont include creating an infrastructure and traffic plans that alleviate the current traffic congestion caused by new business and city population growth. I also have interest in building our community through planning additional recreation for youth sports.
If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"?	I would define quality of life as a city that supports our youth, law enforcement, and works to listen to the community and their needs and takes a proactive approach to problem solving.
What involvement do you currently have in the community?	As stated before, I serve as the current President for the Beaumont High School Boosters Club for cheer.
Additional Information	
Resume	Field not completed.
Additional Information	Field not completed.

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From:	noreply@civicplus.com
Sent:	Monday, January 24, 2022 5:04 PM
То:	Nicole Wheelwright
Subject:	Online Form Submittal: Planning Commission Appointment 2022 - Partial Term ending Dec 2022

Planning Commission Appointment 2022 - Partial Term ending Dec 2022

City Council will consider appointments to the Planning Commission on February 1, 2022 at 6:00p.m. during the Regular City Council Meeting.

First Name	Elaine
Last Name	Morgan
Primary Phone	
Alternate Phone	
Home Address	
Address 2	Field not completed.
Email	
Occupation/Profession	Retired
Employer Name	Field not completed.
Are you 18 years of age or older?	Yes
Are you a resident in the City of Beaumont?	Yes
Questions	

Please answer the following questions which are intended to assist the City Council in assessing your qualifications and experience for the Planning Commission vacancy.

Are you aware of any	Potentially.
conflicts, financial or	I serve on the Board of Administrative Appeals which may
otherwise, which could	require recusal from any appeals related to the Planning
affect your appointment as	Commission. I am willing to resign this position if appointed to
a Planning Commissioner?	the Planning Commission.

Briefly state your qualifications, including any skills or background related to City Planning, development and building/construction:	I have 30+ years of experience in the real estate industry. That experience included analysis of real estate appraisals with a working knowledge of plot maps, zoning codes and building permits in compliance with building regulations. I'm familiar with our Municipal Code and our General Plan. I feel confident in my research abilities to question issues that may arise that conflict with our City regulations. I also understand the importance of my decisions being made in conformance with our City regulations. I'm familiar with the State Housing Element Law and it's application to our City and county. I'm also familiar with recent legislation requiring mandates for our City regarding additional housing including secondary units (ADU). I'm familiar with state and federal housing regulations. I closely monitor the CA Dept of Housing and Community Development, CA Law Revision Commission and the State Legislature for regulations that affect our local communities. In addition to serving on the Beaumont Standing Financial and Audit Committee, I served on the Beaumont CIP Citizens Blue Ribbon Ad-hoc Committee to brainstorm and prioritize needed infrastructure projects as well as determine potential funding sources for those projects. I believe that my experience and knowledge gives me the ability to make informed decisions when interacting with the expertise of our City Staff.
What would your vision for Beaumont's future?	I most want to see the vision of our downtown Beaumont realized. We've spent much time and money in developing the 'concept' and now it's time to get the buggy moving ahead. I also want to see the projects developed in our 5 Year Community Improvement Plan realized and would like to be a part of seeing our city become a thriving community for families with the enhancement of our parks and recreation facilities. We also need to encourage more shopping and dining choices especially on the West side of Beaumont.

If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"?	In relationship to a community member's 'quality of life' I would define that as a feeling of inclusion and opportunity within their community.
	a choice of housing within a safe and attractive neighborhood that meets their economic abilities
	 good paying employment opportunities within a reasonable commute distance
	✓ quality education and training opportunities
	\checkmark access to professional services for their health and welfare
	 a selection of community activities, entertainment and sporting opportunities for their family of all ages interests
	✓ religious choices for worship
	a well managed municipal body that provides safe, fiscally sound services for the community
What involvement do you currently have in the community?	Other than my service on the Board of Administrative Appeals, I maintain a community events Facebook Group (Pass Area Community Events) and I am the Founding Lead for the Solera Nextdoor community.
Additional Information	
Resume	Resume Elaine Morgan - Planning Commissioner.docx

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30+ years successful and diverse experience in management, operations, and sales within the residential home loan industry.

Skills and Qualifications

- Excellent leadership skills maintained a well trained, empowered and supported staff
- Persistent drive for 'highly satisfied' customers and employees
- Excellent research and analytical skills for development of policy and procedural processes to meet regulatory compliance. Extensive knowledge of agency underwriting and industry regulatory guidelines
- Ability to take initiative in a deadline driven, fast paced environment
- Superior organizational skills with strong attention to details
- Adept in the use of Windows based computers, internet, and email. Proficient in Microsoft Office

Work Experience

City of Beaumont - Beaumont, CA Hearing Officer, Board of Administrative Appeals

 On an as-needed basis, conduct administrative hearings on written appeals regarding code enforcement and animal control related issues.

City of Beaumont - Beaumont, CA Chair, Standing Financial and Audit Committee	Jan 2016 – Jan 2018
Solera at Oak Valley Greens - Beaumont, CA Director/President, HOA Board of Directors	Jun 2017 – May 2021

Bank of America Mortgage – Santa Clara, CA Vice President, Mortgage Account Executive

- Platinum and Chairman's Club award recipient specializing in first time home buyer programs and high net worth bank customers.
- Worked with city, county, and state agencies to set up and originate first time home buyer loan programs. Handled the origination of these loans on behalf of the Bank (exclusive representative) including the preparation, signing and submission of agency documents.
- Conducted training sessions for bank personnel in mortgage origination, prequalification, and product guidelines.
- Worked closely with senior management in developing processes and policies for mortgage lending division.

American Savings Bank – Morgan Hill, CA Branch Manager / Loan Consultant

 Residential home loan originator and Certified Corporate Lending Officer handling bank corporate relocation/employee benefit accounts. Worked with Realtors and various corporate relocation officers to assist borrowers in selection of loan products and completion of loan applications.

Union Bank of California -San Jose Region, CA

Loan Representative

- Residential home loan originator. #2 originator in statewide production at time of departure.
- Specialized in first time home buyer programs and high net worth Private Banking customers. Worked with Realtors and Bank branch personnel in originating home loans. Assisted borrowers in selection of loan products, completing loan applications and obtaining all required supporting documents. Performed data entry of loan application information, generated required disclosures, submitted supporting documentation to underwriting and followed loan through closing. Attended all loan closings.

Nov 1996 – Jul 1997

Nov 1994 - Nov 1996

Aug 1997 – Jun 2004

Jan 2016 - Jan 2018

Union Bank of California -San Jose Region, CA

Vice President, Manager

- Sales and operations manager for San Jose Region Sales office (San Mateo to Monterey) including overseeing loan originations from 22 bank branches within the region. Increased branch production from a 6th state production rating to an average 3rd rating.
- Worked with city, county, and state agencies to set up first time homebuyer loan programs.
- Provided training for sales, operations and bank branch personnel in mortgage origination and product guidelines.
- Worked closely with senior management and operations in developing processes and policies for the mortgage lending division.
- First sales manager to be entrusted with underwriting authority for portfolio and agency loans.
- Reviewed proposed and enacted California and national legislation for mortgage industry impact. Prepared legislation action briefs for senior management.

California State University, Hayward – Hayward, CA Instructor / Advisory Board Member

- Instructor for three of eight courses taught in the Mortgage Banking Certificate program: Fundamentals of Mortgage Banking, Underwriting/Processing and Advanced Loan Processing/Underwriting/Appraisal Review. Responsible for the course outlines, design, and educational materials
- Developed and implemented engaging lessons of instruction for various ability-level adult students
- Advisory Board member instrumental in the design of program formats, certificate requirements and course outlines for the Mortgage Banking Certificate program.

First Corporate Mortgage – San Jose, CA

Vice President, Operations Manager

- Responsible for all areas of the residential lending department. Supervision of the origination, processing, underwriting, appraisal review, funding, shipping, and overall corporate policies.
- Acted as correspondent liaison to ensure compliance with all investor and agency regulations. Established the
 operating and underwriting guidelines for the wholesale lending division including the establishment of secondary
 conduits.

First Interstate Bank of California - Los Angeles, CA

Vice President, Secondary Marketing Manager

- Responsible for delivery of statewide residential loan production to secondary market investors. Worked with
 corporate marketing department to secure forward pricing for current and closed loan portfolios. Set daily pricing
 for retail loan products offered.
- Line management for underwriting, funding, and shipping departments. Worked with department managers to
 ensure loan quality to meet secondary investor and regulatory guidelines. Developed and implemented lending
 policies and operating procedures for FHA, VA, and Conventional loan products.
- Employed at Pasadena mortgage headquarters 1-1987 to 12-1987 transferred to Los Angeles headquarters 1-1988 to 2-1989.

Education

Folsom Lake College	Real Estate & Business Law	GPA 4.0	Folsom, CA
San Jose Community College	Real Estate Major	GPA 4.0	San Jose, CA

Affiliations

- Member Community Associations Institute (CAI)
- Past Statewide President California Association of Residential Lenders (CARL)

Apr 1990 – Nov 1994

Feb 1989 – Mar 1990

Jan 1987 - Feb 1989

Sep 1991 - May 1995



From:	noreply@civicplus.com
Sent:	Tuesday, January 25, 2022 3:19 PM
То:	Nicole Wheelwright
Subject:	Online Form Submittal: Planning Commission Appointment 2022 - Partial Term ending Dec 2022

Planning Commission Appointment 2022 - Partial Term ending Dec 2022

City Council will consider appointments to the Planning Commission on February 1, 2022 at 6:00p.m. during the Regular City Council Meeting.

First Name	David
Last Name	Castaldo
Primary Phone	
Alternate Phone	
Home Address	
Address 2	PO Box 129
Email	
Occupation/Profession	Self
Employer Name	A.C. EQUIPMENT INCORPORATED
Are you 18 years of age or older?	Yes
Are you a resident in the City of Beaumont?	Yes
	g questions which are intended to assist the City Council ions and experience for the Planning Commission
Are you aware of any conflicts, financial or otherwise, which could affect your appointment as a Planning Commissioner?	None known.

Briefly state your qualifications, including any skills or background related to City Planning, development and building/construction:	2004 - 2008 Beaumont Planning Commission 2010 - 2014 Elected Beaumont City Council 2016 - 2020 San Gorgonio Pass Water Agency
	1999 - present Beaumont Chamber of Commerce member 2000 - 2018 Beaumont Cherry Valley Rotary Club member
	1979 - present owner of A.C. Equipment Incorporated dba A.C. Propane Co.
	I have operated 3 different businesses in Beaumont in the last 20 years. I have continuously operated A.C. Propane Company in Beaumont since 1985.
	I have supervised the building of an industrial building and residential building in Beaumont.
What would your vision for Beaumont's future?	 I would like to see a sustainable community. A community that supports itself and meets the needs of its residents. I would like to see a positive sales tax flow where the City gains more in sales tax revenue than it loses to other cities. I would like to see positive developments that enhance our city, provides needed resources, without creating a noticeable impact on traffic, emergency services, and public resources. I would like to see a city that works with small businesses and long time established business in the city to help them succeed and prosper. I would like to see a City that is concerned and protects property rights. Lastly, I would to see a city whose residents are proud to live in our community.
If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"?	My definition of "Quality Of Life" means the amenities and desirables a resident will like to receive from their city. Those amenities and desirables may include but are no way limited to parks, recreational facilities, walking and jogging trails, a strong police presence, child care, safe communities, civic events, public transportation, honest and transparent local government, street lighting, shopping, movie theaters, cultural attractions, restaurants, and the ability to purchase a variety of goods locally.
What involvement do you currently have in the community?	I have been very involved in our community, as evidenced by my qualifications listed above. Although the past few years I have taken a step back from community involvement because of the Covid situation, I feel this is an excellent opportunity to

use my experience and history in the city to serve our community.

Additional Information		
Resume	Field not completed.	
Additional Information	Field not completed.	

Email not displaying correctly? View it in your browser.

From:	noreply@civicplus.com
Sent:	Tuesday, January 25, 2022 4:18 PM
То:	Nicole Wheelwright
Subject:	Online Form Submittal: Planning Commission Appointment 2022 - Partial Term ending Dec 2022

Planning Commission Appointment 2022 - Partial Term ending Dec 2022

City Council will consider appointments to the Planning Commission on February 1, 2022 at 6:00p.m. during the Regular City Council Meeting.

First Name	MICHAEL
Last Name	CANNON
Primary Phone	
Alternate Phone	Field not completed.
Home Address	
Address 2	Field not completed.
Email	
Occupation/Profession	LAND TITLES & RECORDS MANAGER
Employer Name	MORONGO BAND OF MISSION INDIANS
Are you 18 years of age or older?	Yes
Are you a resident in the City of Beaumont?	Yes
Questions Please answer the following questions which are intended to assist the City Council in assessing your qualifications and experience for the Planning Commission vacancy.	
Are you aware of any conflicts, financial or otherwise, which could	NO CONFLICTS

affect your appointment as a Planning Commissioner?

Briefly state your qualifications, including any skills or background related to City Planning, development and building/construction:	I WORK IN THE REALTY DEPARTMENT FOR MORONGO AND AM FREQUENTLY INCLUDED IN MEETINGS REGARDING ECONOMIC DEVELOPMENT, TRANSPORTATION, AND UTILITIES FOR THE TRIBE. IN MY CAPACITY, I REVIEW DOCUMENTS AND SURVEY PLATS PRIOR TO RECORDING AND ADDING TO THE FEDERAL SYSTEM OF RECORDS FOR INDIAN LAND TITLE (TRUST LAND). MY EDUCATION DEGREE WAS FOR ENVIRONMENTAL STUDIES AND PLANNING WITH AN EMPHASIS AN ENERGY MANAGEMENT.
What would your vision for Beaumont's future?	MY VISION FOR BEAUMONT'S FUTURE IS A BALANCE OF OF LIVING, ACTIVITIES, AND COMMUNITY RESOURCES. THE MAJOR THOROUGHFARES ARE IMPACTED WITH CONGESTION MAKING IT UNPLEASANT TO CROSS TO THE OTHER SIDE OF THE TRACKS, COUPLED WITH A GROWING POPULATION NORTH OF THE FREEWAY AND NEW BUSINESSES BEING LOCATED ON THE SOUTH SIDE - THIS CITY NEEDS TO RECONSIDER CURRENT PLANS FOR DEVELOPMENT WITH THE ISSUES OF TRANSPORTATION IN MIND. THE PASS AREA HAS THE POTENTIAL TO PROVIDE AN AMAZING LIFESTYLE, AND WORKING CLOSER WITH THE COMMUNITY AND NEIGHBORING CITIES WILL BE NECESSARY TO OBTAIN THAT GOAL.
If you were a Planning Commission member representing the Beaumont Citizens, how would you define "quality of life"?	"QUALITY OF LIFE" IS HOW A MEMBER OF A COMMUNITY FEELS ABOUT WHERE THEY LIVE. THIS IS AN EMOTIONAL REACTION TO THE AMENITIES THE COMMUNITY HAS TO OFFER, WHICH INCLUDES GREENBELTS AND PARKS, SPORTS, RESTAURANTS AND SHOPS, AND PUBLIC TRANSPORTATION THAT HELPS TO ELIMINATE THE NEED TO DRIVE AND LOW STRESS. WE ALREADY HAVE GREAT PARKS, SOME TRAILS, AND MANY YOUTH SPORTS; BEAUMONT POLICE HAVE A VISIBLE PRESENCE HELPING TO KEEP CRIME LOW, AND WHILE WE ARE GROWING THE COMMERCIAL AND RETAIL SECTOR - THE LOCATIONS AND ACCESS ARE HURTING THE QUALITY OF LIFE FEEL IN BEAUMONT.
What involvement do you currently have in the community?	I HAVE BEEN ON THE SCHOOL SITE COUNCIL FOR SUNDANCE ELEMENTARY, TEAM MANAGER FOR THE SAN GORGONIO PASS STINGRAYS, COACHING ASSISTANT FOR THE BEAUMONT YOUTH RUGBY TEAM, AND INVOLVED WITH GIRL SCOUTS. RECENTLY, I HAVE BEEN PARTICIPATING IN THE COUNTY OF RIVERSIDE TRANSPORTATION COMMITTEE IN REGARD TO THE I-10 CORRIDOR WORKING WITH YUCAIPA, CALIMESA, CALTRANS AND MORONGO.

Additional Information

Resume

CannonMichael-Resume2021.docx

Additional Information Field not completed.

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Skills

COMMUNICATION

Speaker at NTLA Annual Conference (2012, 2015) on TAAMS and Title in Tribal and BIA Offices

Teach native youth realty/title elements in a quarterly Morongo Sovereignty class

Consult with tribal members and landowners on land transactions and estate planning

LEADERSHIP

National Tribal Land Association (NTLA). Board of Directors. 2011-2016. http://ntla.info Founding member of the National Tribal Land Association serving on both the steering committee and Board of Directors. Developed the bylaws to establish the NTLA, assisted in coordination of annual conferences, and establishment of credentialed education of trust land. NTLA works with tribal nations to create opportunities for land and natural resources staff to learn, share, and network with their colleagues from other tribes to expand their knowledge and skills related to the unique facets of land ownership and management on reservations.

Strategic Plan Trust Reform Team, BIA Pacific Region Team Member, 2015-2018

Established standard operating policies and procedures throughout the Region, identify and create lesson plans and materials for all real estate transactions, as well as establish training and standardized business processes within the Pacific Region.

International Association of Crime Analysts (IACA), 2014-2015, <u>http://www.iaca.net/</u> Member of an organization that helps crime analysts improve their skills, make contacts, help law enforcement agencies make the best use of crime analysis, and to advocate for standards of performance and technique within the profession.

Experience

LAND TITLES & RECORDS MANAGER | MORONGO BAND OF MISSION INDIANS | 06/2007- PRESENT

KAREN WOODARD, 12700 PUMARRA RD BANNING CA 92220,

- Direct the Tribal Land Titles and Records (DLTR) program for contracted Tribes on behalf of the Bureau of Indian Affairs (BIA), including organizational procedures and operations relating to the Bureau's mission, policies, objectives, and the administration of trust Land Titles and Records activities.
- Responsible for day-to-day operations: recording, imaging, maintaining trust records, encoding, examining and certifying Federal land title, reviewing surveys, GIS-based cartography, executing modifications for probates on behalf of administrative law judges, establishing and issuing new certified title status reports for the acquisition of fee lands into trust status, Acts of Congress, purchases of land by Tribes and/or individuals.
- Annual budget review and advice for Title Operations.
- Conduct trainings for internal staff, outside Tribes' tribal land staff, and at the National Tribal Land Staff Annual Conference.
- Provide technical assistance to Tribal, Agency, Region Federal contractor personnel in TAAMS, GIS, and DLTR policies.
- Guidance to tribal members and landowners in matters of land title, probate, and estate planning.
- Represented Tribal LTRO in the Pacific Regional Strategic Plan Trust Reform Team.
- Maintain ArcGIS geodatabase and shapefiles for tribal land status records.
- · Coordinate with Tribal and Historic Preservation Office (THPO) and BAER Team during fire

season to update and provide GIS maps and data.

CRIME ANALYSIS, VOLUNTEER | RIVERSIDE COUNTY SHERIFF OFFICE | 06/2017-PRESENT

- MARILYN BARRE', RIVERSIDE COUNTY SHERIFF'S DEPT.,
- Cooperate with Special Victims task forces to identify emerging patterns, coordinate patrol
 of hot spots, provide bolo bulletins to patrol, listings of stolen vehicles, and provide possible
 suspect location.
- · Create hot spot analysis maps using ArcGIS.

LEGAL INSTRUMENTS EXAMINER, GS-0963-08-07 | BUREAU OF INDIAN AFFAIRS | 11/2001-05/2007

- Examine title to Federal Indian Trust land and prepare Title Status Reports for land acquisition and sales, mortgages, and leases. Research, analyze, and process Indian trust documents and ensure completeness and accuracy.
- Interpret and apply state and federal statutes to determine whether said documents are legally sufficient and acceptable. Apply real estate principles and laws to conveyance / legal documents for determining legal effect and/or defect. Prepare administrative corrections, or modifications, as needed.
- Accurately extract and encode land title data from legal and conveyance documents to the Official System of Records.
- Created and maintained comprehensive Indian owner ID database; created electronic tract ownership chain of title.
- Principal contact for land and ownership database conversion project (LRIS to TAAMS Trust Assets and Accounting Management System).

DATA EXAMINER | DATACOM SCIENCES, INC. | 07/2000-11/2001

- Researched individual Indian land interests and owner identification numbers to consolidate id number for maintaining accurate ownership interests. Responsible for researching and correcting errors identified during pre-conversion of new system of records implementation, and for performing post- conversion cleanup tasks.
- Designed and implemented various databases and spreadsheets for internal and Bureau use.
- Communicated with client daily to ensure all needs and goals were complete.
- Performed preliminary title examination for BIA. Research, analyze, and process Indian trust documents and ensure completeness and accuracy. Interpret and apply state and federal statutes to determine whether said documents are legally sufficient and acceptable. Apply real estate principles and laws to conveyance / legal documents for determining legal effect and/or defect.

Education

CERTIFICATION | 12/2014 | UNIVERSITY OF CALIFORNIA, RIVERSIDE Major: Crime and Intelligence Analysis

CERTIFICATION | 12/2013 | UNIVERSITY OF CALIFORNIA, RIVERSIDE Major: Geographical Information Systems (GIS)

BACHELOR OF ART | 05/1999 | SONOMA STATE UNIVERSITY, ROHNERT PARK, CA Major: Environmental Studies and Planning – Energy Management & Design



Staff Report

TO: City Council
FROM: Kristine Day, Assistant City Manager
DATE February 1, 2022
SUBJECT: Presentation/Update of the Police Station Feasibility Study and

Direction from City Council

Background and Analysis:

The scope of work for the Beaumont Police Station Feasibility Study has been categorized into six parts. The design team has completed the first three parts and is preparing to move into the development of floor plans and building elevations scope of work. Below is a summary of the activities that the consultant team and City/Police Department staff have conducted.

- 1. **Data Collection:** Following the initiation of the contract in July 2021, the consultant team began to collect information on the make-up and operation of the existing police station, staffing and operational needs.
 - a. **Organization Chart:** Using a current organization chart, the consultant team developed an understanding of the departmental make-up of the Police Department. This information was then used to create departmental questionnaires.
 - b. Departmental Questionnaires: In July and August 2021, 35 questionnaires were sent to the different divisions of the Police Department with the intent to gather information regarding staffing, equipment, and office space needs of each. The questionnaires also asked about anticipated growth and future needs.
 - c. **Departmental Interviews**: In September 2021, the consultant team conducted two days of interviews with Police Department staff to initiate a space needs assessment.
- 2. **Space Needs Assessment by Population Growth:** Based on feedback collected, a space needs assessment was prepared for initial review and comment by Police

Department staff. The assessment compares three milestones: 1. The current needs of today (2022), 2. The anticipated needs of 2030, 3. The anticipated needs of 2040. The 2030 and 2040 milestone growth projections are based upon annualized growth projections. The growth projections do not suggest that staffing will grow at a specific pace, instead the projections identify space needs suitable to serve staffing as the population is projected to grow. The iterative review of this draft assessment has been ongoing, from November of 2021 through January 2022.

- 3. Facility Tours: In November 2021, City/Police Department staff, and the consultant toured six recently completed facilities in Northern California, the Portland, Oregon area, and the Phoenix, Arizona area to observe various different approaches implemented in modern police stations. This process was completed concurrently with the review of the space needs assessment to allow for a direct comparison and understanding of the size and types of spaces called for in the assessment and actual built environments.
- 4. Floor Plan Development and Building Elevations: Upon acceptance of the Draft Space Needs Assessment (Attachment A), the next step for the consultant team will be to develop a site plan, building floor plans, and elevations that describe the needs and the design of the proposed police station.
- 5. Construction Cost Estimates: Once the site plan, floor plan, and elevations have been developed to a conceptual level and City and Police Department staff feel the design meets the goals and aspirations of the project, the drawings will be given to a third-party cost estimator to develop a Statement of Probable Construction Cost. The statement will account for the expected delivery method of the project and an estimated schedule of construction to account for escalation of the construction market.
- 6. **Final Report to City Council:** Upon completion of the Construction Cost Estimate, the consultant team will provide a final report to the City Council of the space needs assessment, the proposed design, and the associate project construction costs.

Fiscal Impact:

City staff estimates the cost to prepare this report to be \$633.

Recommended Action:

Approval of the Draft Space Needs Assessment.

Attachments:

A. Draft Space Needs Assessment

SPACE NEEDS ASSESSMENT

CITY OF BEAUMONT, CALIFORNIA POLICE DEPARTMENT FACILITY

all the second

LPA DESIGN STUDIOS MCCLAREN, WILSON & LAWRIE ARCHITECTS DRAFT • JANUARY 6, 2022



BEAUMONT POLICE DEPARTMENT



JANUARY 6, 2022

Re:

Space Needs Assessment - Draft Beaumont Police Facility

McClaren, Wilson & Lawrie, Inc. 8705 North Central Avenue Phoenix, Arizona 85020

McClaren Wilson and Lawrie, Inc. (MWL) appreciates this opportunity to submit this Space Needs Assessment program summary as part of a planning team under the direction of LPA Design Studios.

What follows in this document is a detailed / itemized list of spaces. After review and adjustments are made, we will add adjacency diagrams and issue a final Space Needs document. Completion of this space definition process will then serve as the trigger to enable the team to commence the concept design and budget development phase.

When the LPA / MWL team was selected for this project, we were excited to work with a highly motivated organization proudly serving a rapidly growing city. Please accept our sincere appreciation for this opportunity to be of service to the City of Beaumont and BPD staff.

This document reflects the tremendous assistance by BPD staff. Staff made time available for meetings. They toured projects, took photos, furnished fleet inventories and always provided the extra effort we needed to conduct the study.

We particularly appreciated an organization willing to consider some new ideas and planning concepts.

We strongly believe this effort will result in a practical and functional building; one that anticipates the design and operational issues that will likely become part of daily life.

Sincerely

film M

602 • 331 • 4141 Offices Throughout North America James McClaren, AIA, OAA, NCARB Senior Principal • McClaren, Wilson & Lawrie, Inc.

OVERVIEW



Draft January 6, 2022

Project Overview

CITY OF BEAUMONT

Police Department Facility

Space Needs Report

Planning Architecture for Public Safety During a Period of Profound Change

Over the past few months the LPA / MWL team has had the honor of working with your staff in the gathering of data and assessment of space needs for a new police facility.

Although this consultant team has had the opportunity to work with hundreds of first responder agencies over the past three decades, few have faced Beaumont's rapid pace of growth. A rapid pace of growth that will likely continue. This planning effort is intended to allow the City to move a step ahead with critical public safety infrastructure as it prepares for the future.

Of special note was the fact this detailed effort was navigated during a period of such profound change. This timing, however, we believe may prove beneficial to the design of your project.

Due to the pandemic, the way architects envision and design buildings has been subjected to profound change (compared to the way our industry might have approached design in recent past). We now attempt to anticipate and plan for the possibility and impacts of future health emergencies and the rapidly changing needs of our communities. Architectural and engineering professions have mobilized to completely rethink the very way we design, equip and furnish buildings for law enforcement.

Today, there are numerous innovations being fast tracked to serve those areas of public safety buildings that rely on special ventilation (labs, evidence, 911 centers, custody areas etc.) New systems are being developed to deliver cleaner and safer air quality. Touch points in buildings are being minimized. Programmed spacing between staff workstations has been carefully reconsidered. Examples include recommendations to upgrade heating and ventilation systems for all emergency communications centers to hospital grade.

Draft January 6, 2022

Project Overview

Operationally, the pandemic has demonstrated how many activities may be performed productively from distance. It has also demonstrated how certain meetings and training activities may take place productively using web enabled devices in support of traditional / formal meeting rooms.

We are also orienting and planning buildings and sites to reduce nonrenewable energy use by maximizing sustainability. We are also addressing the demands associated with increasing use of renewable energy and impending all-electric vehicle fleets.

The past two years have witnessed periods of significant civil unrest in various areas of the nation. Attacks on police facilities have increased in both frequency and severity. This has served as a catalyst for design teams to recommend enhanced security design features in architecture for law enforcement. Yet, this effort is being undertaken at the same time we are trying to make sure public safety architecture remains more approachable and friendly for the citizens they serve.

Another facet of the unrest has resulted in organizations evaluating how best to activate teams of first responders in coordinating services for activities associated with mental health, substance abuse and homelessness. many law enforcement agencies report the need to consider some flexible space in their new facilities to enable allied services to join with them to better coordinate services. We believe the national the strain associated with staffing shortfalls may also add pressure for multi-agency deployment models.

We are in a period of flux, and the exact nature of change will require the thoughtful consideration of the community, elected officials, first responders and the judicial system. So, although it is too early to determine precisely how change may take place at BPD, the more flexible your new facility is planned, the more useful it will likely prove to be over time.

The Space Needs Process

BPD staff spent hours completing questionnaires, assembling data, taking photos and participating in consultant workshops. They worked patiently to answer consultant questions.

THE CITY OF BEAUMONT POLICE DEPARTMENT FACILITY SPACE NEEDS ASSESSMENT

Draft January 6, 2022

Project Overview

We believe this effort has resulted in providing the Consultant team the necessary data to assemble and synthesize into this document.

This document is organized to present the synthesized information using a series of detailed space sheets. The spread sheets utilize a set of uniform space standards that are presented as a series of sketches for reference.

Existing Conditions

Despite efforts by the police to maintain a clean and well-organized facility, the impacts of severe overcrowding and systems at the useful end of lifespans is evident.

Some space relief was afforded by the additions of modular units to house key staff and repurposing nearly every space in the present building. The current building, however, was built for a city and police department a fraction of the size of today's Beaumont Police Department.



The Police Facility and its Modular Additions

The building was also built in an era that could not fully anticipate the nature and sophistication of the infrastructure needed to support the equipment now in use and envisioned by BPD.

The current single-story masonry structure was built well before current seismic standards, modern energy efficiency standards and ADA barrier-free standards were implemented.

THE CITY OF BEAUMONT POLICE DEPARTMENT FACILITY SPACE NEEDS ASSESSMENT

Draft January 6, 2022

Project Overview

Existing Site

The existing police station fronts Orange Avenue and runs through to Maple Ave. It is separated from adjoining municipal playfields by a low cyclone type fence. It offers close access to City Hall. The entire site is either pavement or structure with almost no landscaping or permeable surfaces.

Specialized vehicles and the mobile command post are parked without benefit of shade or weather protection.

There are numerous temporary storage sheds installed on the site.



The Present Beaumont Police Facility & Site

Rooftop mechanical systems (visible in a well formed by a modified mansard roof) are not easy to access for service and periodic replacement.

The site does not utilize any renewable energy collection devices (wind or photovoltaic).

Project Overview

The current police facility site is also too small to serve BPD parking and storage needs. It offers weak security to adjoining properties.

Correspondingly, it cannot efficiently and cost effectively be expanded on this site.

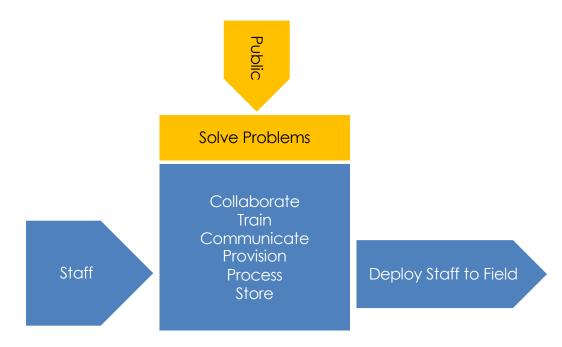
The focus of this study, however, was not intended to be a "justification" document that provides detailed quantification of the existing conditions that warrant the need for a new facility; The City of Beaumont has already determined the need for a modern replacement police facility.

Hence, this study concentrated on recommendations regarding the amount of space and parking needed for the police department. It also seeks to begin the process of identification of the unique needs that the building must serve.

The following are some **overriding** concepts and drivers articulated during the interview process.

A Gathering Place

The BPD currently provides very specialized services. Many services are unique and have very specific equipment and security needs. Hence, our job was to distill into basic terms how it may all logically come together.



Project Overview

This required a simple distillation of services. A distillation that illustrates how having all major services served from a suitably sized new facility will enhance security, promote operational efficiency and enable specialized training. A new properly designed building will promote and streamline routine provisioning and efficient staff deployment while enabling enhanced organizational communications.

In short, a new police facility will do far more than simply provide adequate space, It will enhance operational communications, while enabling efficient provisioning and appropriate training from a healthy workspace.

Health and Wellness

Staff across the organization came together to identify the need for and identify space needs for fitness and physical conditioning. Staff also stressed that direct access from fitness spaces to secure outdoor spaces would be beneficial.

Although safety of staff during any outdoor activity was a voiced concern, we recommend that the overall building utilization plan seek to determine where opportunities may exist to integrate fitness goals with the overall building planning process.

Training

First responders today must be a social worker, a technology whiz, be skilled in precision driving, understand complex legal issues and be trained in the operation of lethal / less lethal devices they carry with skill and precision.

Every service an officer is called upon to perform benefits from comprehensive and appropriate skills training. And since modern policing is increasingly specialized their skills must be constantly fine-tuned to address the changing needs of the community served.

When we consider future facility needs, we believe there will only be increasing demands to train emerging staff and constantly enhance precision skills and knowledge of current staff. One feature included is a modest tactical firearms proficiency range.

Draft January 6, 2022

Project Overview

Presentation / Training Spaces

Various building users stressed the need for space capable of accommodating group of 50 or more. Some activities that will use such a space involve staff only, some will involve other Beaumont City staff and allied agencies, some will involve BPD staff and the public. Therefore, the location of this type of space is critical as it must afford secure internal use and controlled access to the public lobby.

Since the use of a multi-purpose room may vary greatly, and evolve over time, we recommend that it be planned for a high level of flexibility. For example, if possible, the design of the multi-purpose space be planned to be subdivided into two (or more) smaller rooms to offer greater utility than leaving the permanently configured only for large groups.

Essential Services Buildings

California's Essential Services Building Act (Title 24) covers most of the space programmed in this document.

These functional spaces must be designed for **operational continuity** during and after periods of natural disasters. Structured Parking, if utilized will also need to be housed in facilities rated "Essential".

Parking / Site Considerations

There were numerous site needs identified for the facility as well. The first and, perhaps most critical need, is for multiple vehicular access points. A primary access point to provide normal day-to-day access and an alternative access point to enable emergency deployment if the primary access point becomes obstructed or blocked.

Other site (or outdoor) needs include transformers, alternative fuel storage (for the emergency generator) and (possibly) a communications tower.

There are various site access points needed to enable towed delivery of vehicles for crime scene investigations, service deliveries and garbage removal.

Project Overview

Site Zones

We recommend the new site provide three zones:

• A Public Zone

Where visitors and guests arriving to the building may access the building. We typically size this area based on the capacity of the public meeting rooms accessible to the lobby. Depending upon co-located facilities (adjacent Fire Station) there may be opportunities for visitors parking to be shared in the eventual design.

• A Secure Staff Zone

This is the secured portion of the site and possible parking structure accessible only to staff using access control devices.

The study indicates site needs in detail. Based solely on projected needs the study identifies the needs for secure parking for 131 vehicles.

• A Services Zone

This area is fenced and securable but may be outside of the secure staff parking zone. It serves as an access point for deliveries and access to utilities.

Resiliency & Security

Since the building must remain fully operational in service during and after major earthquakes, the design must incorporate major resiliency features. These will assure that essential equipment remains powered and security systems remain intact.

The building envelope design will be critical. It must provide protection from attack. Potentially vulnerable fenestration should be resistant to projectiles, building cladding must provide a tight seal and prevent bullets from a drive-by shooting from entering.

All supporting equipment such as utility connections, towers and attached equipment must be securely attached.

Draft January 6, 2022

Project Overview

Planning for Growth

The space spreadsheets presented in this document identify space needs for three milestones. One milestone is labeled "2021" and identifies a total current space need of **44,404 square feet for today's staff** of **74**. A second milestone is labeled "2030" and identifies a total space need of **46,723 square feet for a future staff of 89**. A third milestone is labeled "2040". This milestone identifies identifies a total space need of **49,188 square feet for a future staff of 105**. All staffing projections were based on annual growth projections furnished by the City of Beaumont.

Collaborative Workspace Design

Executive and line staff all noted a strong desire for collaborative workspaces with views and natural light. This is consistent with healthy work environments and sustainability efforts the design team will emphasize during our concept design efforts.

Another strong emphasis was to creates "openness". Spaces should encourage interaction and avoid any perception of "halls and silos".

One method to achieve this is to centralize commonly accessed spaces such as Patrol areas. For example, the report writing room can be designed to link with compatible service zones such as locker rooms and briefing room. The sketch on the following page illustrates the way this type of layout was employed at a new Patrol facility we collectively toured in Peoria, Arizona.





Peoria's Patrol Areas

Draft January 6, 2022

Project Overview

An advantage of this type of layout is the minimal use of corridors. Space flows smoothly from one area to the next openly avoiding the overly compartmentalized layout many facilities are burdened with.

Specialized Storage	Lockers	Fitness / Sp	pecialized Training
	Shared C	Common Patro (Report Writing)	ol Space
Holding	Briefing	Lunch Rm.	Watch Sgt's

Peoria's Plan Emphasizing Collaboration

Site Needs

Site needs are identified in detail on pages 25 and 26. They assume a regularly shaped rectangular site (not pie shaped etc.) with some slope. Assumptions also include allowances for setbacks and landscaping.

Our initial calculation suggests that a site utilizing surface parking for all vehicles would require approximately **5.41 acres**.

A site utilizing structured parking for all secure vehicles would require approximately **4.47 acres**.

Both calculations include an allowance for landscaping and setbacks, site space for K-9 training and a support (utilitarian type) building for functions that normally do not require extreme seismic strengthening as deemed by the Essential Services Building Act in Title 24.

SPACE AND SITE PROGRAM



Space and Site Program

Square Footage Summary

Building and Site Square Footage Program

This section includes space and staff spreadsheets outlining the assignment of square footage and staff needs for the BPD. Here are a few explanations of the program document format to aid in review:

Programming Milestones

This space needs assessment identifies space and staff requirements for three milestones:

Milestone Current (2022)

The space each function requires to address present day space needs with no contemplated growth in the present staff. This may be thought of as ("rightsizing").

• Milestone 2030

The projected year 2030 space needs.

• Milestone **2040**

The projected year 2040 space needs.

Please note that staffing indicated in growth projections are based on annual growth projections using factors furnished by the City of Beaumont and do not suggest that staffing will grow at any specific pace, instead the projections identify space needs suitable to serve staffing at those levels (understanding that staffing level typically fluctuate at actual rates that may prove to be faster or slower).

• Building Area Summary

Adjusted net square footage from the detailed spreadsheet pages are entered into the summary page. On the summary page a grossing factor is added to the summary of the adjusted net square footage to arrive at the total gross square footage for each building (main and support) component.

Space Number

The space number is included for reference. In some instances the space number is repeated for a variety of items. This designates where items reside in the same space.

The program uses three types of square footage; **Net**, **Adjusted Net** and **Gross** Square foot.

Space and Site Program

Square Footage Summary

Net Square Footage

Net square footage is the direct **usable** space needed for offices, workstations, file cabinets and equipment such as copy machines.

Direct **usable** space is identified by space codes (for example: **PO** = Private Office and **OP** = Open Plan workstation) and then support spaces.

In some spaces staffing numbers have no assignable office or workstation space. To account for shifted workspaces there is a **number of spaces** column.

			Milestones		2022	2030	2040	21	30	40		2022	2030	2040	
	Space No:	Support Bldg.			Sta	affing Proje	ction		umber Space		Space Code	A	rea Total	s	Remarks
Net Square	4.01 4.02 4.03 4.04		4.00 Support Services Support Services LT. Support Services Sup. Records Specialist Animal Control Evidence Tech Support Spaces Public Service Counte		1 1 4 2 1	1 1 5 2 1	1 1 6 2 2	1 1 4 2 3	1 1 5 2	1 1 6 2 3	PO4 PO3 OP3 OP3 OP3	180 168 288 144 0	180 168 360 144 0	180 168 432 144 0	See Evidence 7.02 Handles cash (Screen publi view to office areas w/one-
Feet	4.05		Active Records Files					2	2	2	HDFL	200	200	200	way glass) 200 SF Equivalent to
	4.06	8 8	Work / Copy / Mail Co	enter				1	1	1	CPY3	130	130	130	
		8						1	-	-	NA	0	0	0	
	8	8			5 - S		8 10 1			1	NA	0	0	0	
	1	8 8				8 8					NA	0	0	0	
	3.									10.00	NA	0	0	0	
		8 8								1	NA	0	0	0	
	S	8								10.00	NA	0	0	0	
											NA	0	0	0	
			Subtotals		9	10	12		8			1,146	1,218	1,290	
			Circulation	25%								287	305	323	
dj. Net So	quare F	eet	Adjusted Net Area									1,433	1,523	1,613	

Adjusted Net Area

At the bottom of each list of net square footages there is a **circulation** factor. This is the square footage that is needed to provide for aisles and the walk around space needed to connect spaces within each area of the building.

Space and Site Program

Square Footage Summary

Please note that the circulation factor varies depending upon the needs of each space group. For example, most spaces have a circulation factor of 25%. However, some technical spaces like communications require a larger circulation factor. Bulk storage areas (such as the evidence) typically require smaller circulation factors. When the net space and circulation factor are added together the result is the **adjusted net** area.

Gross Square Footage

The adjusted net area is totaled on the summary page where a **grossing** factor (sometimes referred to as an "efficiency" factor) is added. The grossing factor provides the space to address wall / partition thicknesses, structural columns, the corridors that connect each area of the building and support spaces for janitor closets, premise wiring closets, mechanical rooms and electrical rooms).

Summary

The square footage difference between current and the 2040 milestones is modest (square footage is projected to increase approx. 18% despite a 37% increase in service population). The reason for this is that the initial construction milestone addresses core spaces (public lobby, fitness, specialized training spaces, briefing room, stairs, mechanical rooms, the lunch room etc.). Future growth consists mainly of additional lockers, workspaces and future needs for evidence.

Gross Square Feet (GSF) Main Bldg.

Gross Square Feet (GSF) Support Bldg. Space and Site Program

Square Footage Summary

Milestones		Staffing		Squ	are Foota	ige	Remarks
	2022	2030	2040	2022	2030	2040	Remarks
Spaces							
1.00 Public Spaces	0	0	0	1,100	1,100	1,100	
2.00 Police Administration	4	5	6	1,626	1,626	1,716	
	20	100 A	28				
3.00 Investigative Services	100.00	24		3,629	4,029	4,429	
4.00 Support Services	9	10	12	1,433	1,523	1,613	
5.00 Dispatch/Communications	12	15	18	1,648	1,950	2,246	
6.00 Operations / Patrol	29	35	41	3,905	3,995	4,198	
7.00 Evidence Bag & Tag	0	0	0	3,375	4,256	5,066	
8.00 Intake & Processing	7			1,149	1,149	1,149	
9.00 Shared Staff Areas	0	0	0	8,399	8,586	8,786	
10.00 DOC / Multi-Purpose / Community Mtg. Rm.	0	0	0	1,930	1,930	1,930	
11.00 Firearms Proficiency Range / Support Bldg.	0	0	0				See Support Bldg
Total Adjusted Net Square Feet				28,194	30,144	32,233	
Total Staff (Sworn + Professional)	74	89	105				
Anticipated Growth (Using Multip	olier Below):	89	104			5	
Main Building							
Sub-Total Adjusted Net Square Footage				28,194	30,144	32,233	
Stairs & Elevator Factor 1rst Floor				1,200	1,200	1,200	
Stairs & Elevator Factor 2nd Floor				1,200	1,200	1,200	
Sub-Total Net Square Footage				30,594	32,544	34,633	
Grossing Factor	18%			5,507	5,858	6,234	
otal Gross Square Footage				36,101	38,402	40,866	
Support Building							
11.00 Firearms Proficiency Range / Supp	ort Bldg			7,220	7,236	7,236	
	-			-	-		
Grossing Factor Total Gross Square Footage	15%			1,083 8,303	1,085 8,321	1,085 8,321	
Total Closs Square rootage		í		8,303	0,321	0,521	
tal Gross Square Footage Main + Sup	port Bldg.			44,404	46,723	49,188	
		Ta	+				
		To	tai bined	2022	2030	2040	
Population Projection			SF	56062	65161	74184	
		G.					

Item 7.

Draft January 6, 2022

Space and Site Program

Staffing Calculation

Staff Growth Projections					and the	
				_	owth Fac	
				2022	2030	2040
1.00 Public Spaces						
2.00 Police Administration				4	5	6
3.00 Investigative Services				20	24	28
4.00 Support Services				8	10	12
5.00 Dispatch/Communications				12	15	18
6.00 Operations / Patrol				29	35	41
7.00 Evidence Bag & Tag						
8.00 Intake & Processing						
9.00 Shared Staff Areas						
10.00 DOC / Multi-Purpose / Community						
11.00 Firearms Proficiency Range / Supp	ort Bldg.					
				73	89	105
	Pop.		Yr.			
	54377	1	2021			
	56062	2	2022			
	57892	3	2023			
	59271	4	2024			
	60497	5	2025			
	61416	6	2026			
	62029	7	2027			
	63016	8	2028			
	63936	9	2029			
19.83%	65161	10	2030			
	66540	11	2031			
	67766	12	2032			
	69060	13	2033			
	69673	14	2034			
	70285	15	2035			
	71205	16	2036			
	72277	17	2037			
	73571	18	2038			
	74337	19	2039			
13.85%	74184	20	2040			

Space and Site Program

Square Footage Detail

Supp Bldg 1.01 - 1.02 - 1.03 - 1.04 - 1.04 - 2.01 - 2.02 - 2.03 - 2.04 -		25%	arcel da		1 1 1			Iumbei Space		Space Code 100 600 CNSL1 CNSL1 20 NA NA NA NA NA PO6	An 100 600 80 80 20 0 0 0 0 0 0 0 0 0 0 0 0 0	rea Total 100 600 80 80 20 0 0 0 880 20 0 0 880 220 1,100	s 100 600 80 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Remarks Provide after hours call Station. Note doors must address high winds in Beaumont. Comfortable and professional (not hard / sterile). Refuge rm. / Second Exit (secure side) Securable alcove (in Rm. 1.04) Securable alcove (in Rm. 1.04) Accessible / Not isolated Suite
1.02 1.03 1.04 	Entry Vestibule Lobby Report Taking Room Report Taking Room Livescan closet Transaction windo Subtotals Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	25%	0		1	1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1	600 CNSL1 20 NA NA NA NA NA	600 80 20 0 0 0 0 0 0 880 220 1,100	600 80 20 0 0 0 0 0 0 880 220 1,100	600 80 20 0 0 0 0 0 0 880 220 1,100	station. Note doors must address high winds in Beauront. Comfortable and professional (not hard / sterile). Refuge rm. / Second Exit (secure side) Securable alcove (in Rm. 1.04)
1.02 1.03 1.04 	Entry Vestibule Lobby Report Taking Room Report Taking Room Livescan closet Transaction windo Subtotals Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	25%	0		1	1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1	600 CNSL1 20 NA NA NA NA NA	600 80 20 0 0 0 0 0 0 880 220 1,100	600 80 20 0 0 0 0 0 0 880 220 1,100	600 80 20 0 0 0 0 0 0 880 220 1,100	station. Note doors must address high winds in Beauront. Comfortable and professional (not hard / sterile). Refuge rm. / Second Exit (secure side) Securable alcove (in Rm. 1.04)
2.01 2.02 2.03	Report Taking Room Report Taking Room • Livescan closet • Transaction windo Subtotals Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	25%	0		1	1	1	1 1 1 1 1	1 1 1	CNSL1 CNSL1 20 NA NA NA NA	80 80 20 0 0 0 0 0 880 220 1,100	80 80 20 0 0 0 0 0 880 220 1,100	80 80 20 0 0 0 0 880 220 1,100	professional (not hard / sterile). Refuge rm. / Second Exit (secure side) Securable alcove (in Rm. 1.04)
2.01 2.02 2.03	Report Taking Room Livescan closet Transaction windo Subtotals Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	25%	0		1	1	1	1	1	CNSL1 20 NA NA NA NA NA	80 20 0 0 0 0 0 0 880 220 1,100	80 20 0 0 0 0 0 880 220 1,100	80 20 0 0 0 0 880 220 1,100	(secure side) Securable alcove (in Rm. 1.04) Accessible / Not Isolated
2.01 2.02 2.03	Livescan closet Transaction windo Subtotals Circulation Adjusted Net Area Chief of Police Deputy Chief of Police	25%	0		1	1	1	1	1	20 NA NA NA NA	20 0 0 0 0 0 880 220 1,100	20 0 0 0 0 0 880 220 1,100	20 0 0 0 0 880 220 1,100	1.04)
2.02	Transaction windo Subtotals Circulation Adjusted Net Area Z.00 Police Administ Chief of Police Deputy Chief of Police	25% tration ce			1	1	1			NA NA NA NA	0 0 0 0 880 220 1,100	0 0 0 0 880 220 1,100	0 0 0 0 880 220 1,100	1.04)
2.02	Subtotals Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	25% tration ce			1	1		1		NA NA NA	0 0 0 880 220 1,100	0 0 0 880 220 1,100	0 0 0 880 220 1,100	
2.02	Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	tration ce	1		1	1		1		NA NA NA	0 0 880 220 1,100	0 0 880 220 1,100	0 0 880 220 1,100	
2.02	Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	tration ce	1		1	1		1		NA	0 0 880 220 1,100	0 0 880 220 1,100	0 0 880 220 1,100	
2.02	Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	tration ce	1		1	1		1		NA	0 880 220 1,100	0 880 220 1,100	0 880 220 1,100	
2.02	Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	tration ce	1		1	1		1			880 220 1,100	880 220 1,100	880 220 1,100	
2.02	Circulation Adjusted Net Area 2.00 Police Administ Chief of Police Deputy Chief of Police	tration ce	1		1	1		1	1		220 1,100	220 1,100	220 1,100	
2.02	Adjusted Net Area	tration ce	1					1	1		1,100	1,100	1,100	
2.02	2.00 Police Administ Chief of Police Deputy Chief of Police	ce	1					1	1	DOG				
2.02	Chief of Police Deputy Chief of Polic	ce	1					1	1	DOG	240	240	240	
2.02	Deputy Chief of Poli							1	1	DOC	240	240	240	
2.02	Deputy Chief of Poli													
2.03			-		-		1	1	1	PO5	224	224	224	
2.04		•	1		1	1	1	1	1	PO4	180	180	180	Need Indoor (backdrop) an outdoor media ready space 2 Open Plan spaces sharing an office. Locate Nr. Invest.
2.04	Sp. Projects / PIO		1		1	1				OP4	0	0	0	Workspace at Investigation See 3.04
2.04	Shared Workstation		0		1	1				OP4	0	0	0	Workspace at Investigation See 3.04
	Admin Assistant		0		0	1			1	OP3	0	0	72	Reception style
										NA	0	0	0	
	Support Spaces													
2.05	Secure File Room						1	1	1	100	100	100	100	
2.05	IA Files							-	-	NA	0	0	0	
	On-Duty Accident									NA	0	0	0	
	Background									NA	0	0	0	
	Past Employee									NA	0	0	0	
2.06	General Storage						1	1	1	STOR3	144	144	144	
2.07	Admin (Chief's) Con	f. Roor	m				1	1	1	CNF16	365	365		Seats 16
2.08	Copy Alcove						1	1	1	CPY1	24	24	24	
2.00	Coffee Alcove			-			1	1	1	COF1	24	24	24	
2.09	corree Alcove						1	1	1	NA	24	24	24	
									Ĵ.	NA	0	0	0	
5	Culture 1				-						1.007	1.00/	1 0 7 0	
			4		5						1,301	1,301	1,373	
	Subtotals Circulation	25%				6					325	325	343	

Space and Site Program

Square Footage Detail

		Milestones	2022	2030	2040	21	30	40	Space	2022	2030	2040	
Space No:	Support Bldg.		s	taffing Proje	ection		umber Space		Code	A	rea Total	s	Remarks
		3.00 Investigative Se	rvices					Ď 1					
3.01		Investigative Lt.	1	1	1	1	1	1	PO4	180	180	180	
		Sqts. Office						ř í					
3.02		Detective Sgt.	1	1	1	1	1	1	OP4	80	80	80	Combine all Sgts
3.02		MET Sgt.	1	1	1	1	1	1	OP4	80	80	80	
3.02		COPPS / Admin. Sgt.	1	1	1	1	1	1	OP4	80	80	80	Combine all Sgts
								0					
		Cpl's Office		-	-	-		-					
3.03	<u>-</u>	Det. Cpl.	1	1	1	1	1	1	OP4 OP4	80 80	80 80	80 80	
3.03	6	K-9 Cpl.	1	1	1	1	1	1	OP4	80	80	80	
		Det's / Officer's Work	space					1					
3.04		Detectives	3	4	5	3	4	5	OP4	240	320	400	
3.04		GIT Det.	1	1	1	1	1	1	OP4	80	80	80	
3.04		RAID Det.	1	1	1	1	1	1	OP4	80	80	80	
3.04		PACT Det.	1	1	1	1	1	1	OP4	80	80	80	
3.04		GTF Det.	1	1	1	1	1	1	OP4	80	80	80	
3.04		MET Ofcr.	2	3	4	2	3	4	OP4	160	240	320	
3.04		Bus. Liaison Ofcr.	1	1	1	1	1	1	OP4	80	80	80	
3.04		Traffic Ofcr.	2	3	4	2	3	4	OP4	160	240	320	
3.04		School Res. Ofcr.	2	3	4	2	3	4	OP4	160	240	320	
3.04	· · · · ·	Sp. Projects / PIO				1	1	1	OP4	80	80	80	
3.04		Shared Workstation				1	1	1	OP4	80	80	80	Located W/PIO
		Support Spaces						-					
3.05		Secure Equip. Stor. Ca	binets		8 8 9	1	1	1	CAB1	5	5	5	Cameras, etc.
3.05	8 8	Secure Drone Stor. Ca			1.	1	1	1	CAB1	5	5	5	Drones, trackers
3.05	8 8	Worktable			10.00	1	1	1	WTBL1	94	94	94	Layout space in office
3.06	2 2	Investigations Secure	Storage Rm		S	1	1	1	STOR3	144	144	144	
3.07		Invest Project Rm.				1	1	1	CNF12	299	299	299	
3.08		Coffee Alcove				1	1	1	COF2	32	32	32	
		Interview Suite - Vict	im/Witness										
3.09		Family Interview Roo	m			1	1	1	INT5	120	120	120	
3.10		Interview Room				1	1	1	INT1	80	80	80	-
3.11	1	Interview Toilet				1	1	1	T1	64	64	64	
3.12	12	Sound Vestibule				1	1	1	200	200	200	200	
	2								NA	0	0	0	
									NA	0	0	0	
									NA	0	0	0	
									NA	0	0	0	
									NA	0	0	0	
									NA	0	0	0	
									NA	0	0	0	
									NA	0	0	0	
									NA	0	0	0	
								-	NA	0	0	0	
	2								NA	0	0	0	
	2								11/1	J	J	U	
		Subtotals	20	24	28					2,903	3,223	3,543	
		Circulation	25%							726	806	886	
		Adjusted Net Area								3,629	4,029	4,429	

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Space and Site Program

Square Footage Detail

		Milestones		2022	2030	2040	21	30	40	Space	2022	2030	2040	
Space No:	Support Bldg.			St	affing Proj	ection	N	umbei Space		Code	A	rea Tota	s	Remarks
		4.00 Support Service	es						-					
4.01	Ŭ.	Support Services LT.		1	1	1	1	1	1	PO4	180	180	180	
4.02	Ŭ.	Support Services Su		1	1	1	1	1	1	PO3	168	168	168	
4.03	Ď.	Records Specialist		4	5	6	4	5	6	OP3	288	360	432	
4.04	Ŭ.	Animal Control		2	2	2	2	2	2	OP3	144	144	144	
	Ŭ.	Evidence Tech		1	1	2	-			OP3	0	0		See Evidence 7.02
		Support Spaces			_		_							
4.03		Public Service Count	ter				3	3	3	CNTR1	36	36	36	Handles cash (Screen publ view to office areas w/one- way glass)
4.03		Active Records Files					2	2	2	HDFL	200	200	200	200 SF Equivalent to conventional sto. Active (archives are mainly digital
4.05	2	Work / Copy / Mail	Cente	r			1	1	1	CPY3	130	130	130	
	8	,,,					-	-	-	NA	0	0	0	
	8	3							2 3	NA	0	0	0	
	1									NA	0	0	0	
	3	3								NA	0	0	0	
	3				8 8				1	NA	0	0	0	
	8	3			8 8					NA	0	0	0	
	2									NA	0	0	0	
	1 2													
		Subtotals		9	10	12					1,146	1,218	1,290	
		Circulation	25%								287	305	323	
		Adjusted Net Area			S 8	5 1					1,433	1,523	1,613	
	1 2								<u></u>					
	1													
		5.00 Dispatch/Comr	munic	L CONTRACTOR					_					Secure Space
		Dispatch Lead		1	1	1				NA	0	0		See Consoles Below
		Dispatcher		9	11	13				NA	0	0	0	See Consoles Below
		Temp. Dispatcher		2	3	4				NA	0	0	0	
										NA	0	0	0	
		Dispatch/Communic	cation	s Console	25									
5.01		Supervisor Console					1	1	1	CON3	144	144	144	2-Person Console
5.02		Dispatcher Consoles					4	6	8	CON2	400	600	800	1- Person Sit / Stand
		Dispatch Communic	ation	s Support	Spaces									
5.02		Rolling Personal File	es				12	15	18	8	96	120	144	Below wall counter
5.02		Chair Corral					1	1	1	80	80	80	80	Variety of clerk chairs
5.03		Quiet/Lactation Roo	m				1	1	1	100	100	100	100	
5.04	Ľ.	Mini-Break Rm.					1	1	1	160	160	160		Microwave warming
5.05	ľ.	Personnel Lockers					6	8	9	LKR1	24	32		1/2 High Lockers
	ľ	Toilet					1	1	1	T1	64	64	64	
						-	-							
5.06		Server / Radio Rm.			8		1	1	1	200	200	200	200	
5.06									1	NA	0	0	0	
										NA	0	0	0	
									1		-	-	-	
									_	NA	0	0	0	
										NA NA	0	0	0	
		Subtotals		12	15	18								
		Subtotals Circulation	30%		15	18					0	0	0	

Space and Site Program

Square Footage Detail

		Milestones	20	22	2030	2040	21	30	40	Space	2022	2030	2040	
Space No:	Support Bldg.			Staf	fing Proje	ction		umbe Space		Code	A	rea Tota	s	Remarks
			-						-					
	1	6.00 Operations / Pate	ol						1					
6.01	1	Operations LT.	1		1	1	1	1	1	PO3	168	168	168	
6.02	0	Patrol Sergeant	4		5	6	4	5	6	OP3	288	360	432	See 6.10 for small conf.
		Corporals	4		5	6	0	0	0	OP3	0	0	0	Will use 6.06 for
		corporato			-					0.0				workstations.
6.03		Chaplaincy / Peer Sup	port Offic	e			1	1	1	PO3	168	168	168	3 Chaplains / Shared Ofc. Need files for ea. Chaplain. Table for consultation. Not high traffic.
		Police Officer	20		24	28	0	0	0	NA	0	0	0	No office: Use Rm. 6.06 Report writing area
	8	CSO Office					0	0	0	NA	0	0	0	Part of Report Writing
		Patrol Support												
6.04		Report Writing Works	tations				6	6	8	OP1	270	270	360	
6.05		Juvenile Lounge					1	1	1	80	80	80	80	
6.06		Toilet					1	1	1	T1	64	64	64	For Juveniles in 6.07
6.07		Briefing Room					1	1	1	BRF16	690	690	690	
6.08		Sgt. / Corporals Int/Co	onf				1	1	1	CNF04	120	120	120	Counselling Rm.
6.09		Equipment Issue					1	1	1	250	250	250	250	
		 Charging/Download 	ing for Ca	mera	S	_				NA	0	0	0	
6.10		Armory					1	1	1	240	240	240	240	Adjacent to Equipment Issu
6.11	p	Officers' Weapons Ma	intenance	2			2	2	2	WM	126	126	126	
		Explorers / VIPS / Cad	ets / COP	PS Sp	aces									"Touchdown" workspaces. Need to ascertain best location.
6.12		Explorer / VIPS Rm.					1	1	1	240	240	240	240	Tables / Flex Space, 20+ Volunteers + Sto. Cab.
	1	Explorer Storage					1	1	1	STOR2	80	80	80	
		VIPS Storage					1	1	1	STOR2	80	80	80	
6.13		COPPS Rm.					4	4	4	OP1	180	180	180	COPPS Pd. PT Employees
0.15		COPPS Storage					1	1	1	STOR2	80	80	80	
		corrostorage					-	-	-	STORE		00	00	
		Bicycle Patrol							0.00					
	x	Bicycle Storage								BKE1	0	0	0	In Support Bldg. See 11.12
	x	Workbench								CNTR1	0	0	0	
	x	Open Floor/Truing S	tand/Lock	ers						100	0	0	0	
		open ricoly riding o	carriey cock	ici 5						NA	0	0	0	
										NA	0	0	0	
	8		- 2 - 2							NA	0	0	0	
										NA	0	0	0	
										NA	0	0	0	
									0.00	NA	0	0	0	
			12 13							NA	0	0	0	
									2 3	NA	0	0	0	
									0	NA	0	0	0	
									2 3	NA	0	0	0	
									2 3	NA	0	0	0	
									0.0	NA	0	0	0	
										NA	0	0	0	
		Subtotals	29		35	41			2 0		3,124	3,196	3,358	
		Circulation 2	5%								781	799	840	
		Adjusted Net Area									3,905	3,995	4,198	

Space and Site Program

Square Footage Detail

		Milestones	202	2 2	030	2040	21	30	40	Space	2022	2030	2040	
Space No:	Support Bldg.			Staffing	Projec	tion	N	umber Space		Code	A	rea Tota	ls	Remarks
		7.00 Evidence Bag & Ta	g	+										
7.01		Bag & Tag Room					1	1	1	BAG2	320	320	320	Includes Pass-Thru Lkrs.
		Work Counter W/ Exha	uster							NA	0	0	0	
		 Evidence Storage Lock 	ers							NA	0	0	0	
		 Barcoding 								NA	0	0	0	
		Lavatory								NA	0	0	0	
		 Emerg. Eye Wash 								NA	0	0	0	
		Scale & Balance								NA	0	0	0	
		Label Printer								NA	0	0	0	
		 Report Writing Station 	IS							NA	0	0	0	
		 Drying Cabinet (small) 					1	1	1	DRY1	24	24	24	
		 Drying Cabinet (large) 					1	1	1	DRY2	36	36	36	
		Oversize Locker			-		1	1	1	90	90	90	90	
		Evidence Office / Intake	/ Return	2										
7.02		Property Evid. Specialist		~ ()			1	2	3	OP3	72	144		Added space for PT?
7.03		Intake Area					1	1	1	200	200	200	200	
		Mobile Table								NA	0	0	0	
		 Work Counter 		- 0						NA	0	0	0	
		 Access to Sex Reg. Sta 			_					NA	0	0	0	
		 Access to Disc. / Lg. Ev 	id. Ret.							NA	0	0	0	
		 Service Counter 								NA	0	0	0	
		Lavatory			_		_			NA	0	0	0	
		 Emerg. Eye Wash/Saf 	ety Static	on	-				<u> </u>	NA	0	0	0	
		Evidence Return/Discov	ery		1									
7.04		Secure Vestibule					1	1	1	120	120	120	120	
		Transaction Window								NA	0	0	0	
		 Registrant live scan 								NA	0	0	0	
7.05		Discovery / Large Evider	ce Retur	n			1	1	1	120	120	120	120	
		Lavatory								NA	0	0	0	
		General Evidence Stora	<u>e</u>											
7.06		High-Density General Ev	idence St	torage			1	1.33	1.73	1400	1,400	1,862	2,422	
		 Valuables Storage 								NA	0	0	0	
		 Firearms Storage 								NA	0	0	0	
		Coolers					1	1	1	REF3	38	38	38	
		Open Floor					1	1	1	150	150	150	150	
7.07		Narcotics Storage					1	1	1	STOR3	144	144	144	Secure room w/exhaust
7.08		Auction / Destruction					1	1	1	200	200	200	200	
7.09		Evidence Bikes					3	3	3	BKE1	21	21	21	
	x	Homeless Safekeeping S	torage						1.0000	150	0	0	0	See Support Bldg. 11.10
		Found Property Bikes								NA	0	0	0	Cage / covered area on Sit
										NA	0	0	0	
		Investigations & Eviden	ce Lab											Shell space for future?
7.10		CSI Lab Offices					0	1	2	OP3	0	72		
7.11		Digital Examination Lab					0	1	1	160	0	160		HVAC zone control
					_				_	NA	0	0		
										NA	0	0		
									_	NA	0	0		
										NA	0	0	0	
		Subtotals	0	0		0					2,935	3,701	4,405	
		Circulation 15	%								440	555	661	
		Adjusted Net Area									3,375	4,256	5,066	

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Space and Site Program

Square Footage Detail

		Milestones		2022	203	30	2040	21	30	40	Space	2022	2030	2040	
Space No:	Support Bldg.			Sta	affing P	rojectio	n		umbei Space		Code	A	rea Tota	s	Remarks
		8.00 Intake & Process	ing												Adjacent to sally court
8.01		Suspect Processing						1	1	1	300	300	300	300	
		 Cuffing Bench 									NA	0	0	0	
		Blood Draw									NA	0	0	0	
		 Photo System 									NA	0	0	0	Juvenile photos
		Livescan									NA	0	0	0	
8.02		Interview Room						2	2	2	INT1	160	160	160	
8.03		Secure Toilet						1	1	1	T1	64	64	64	
8.04		Holding Cells						2	2	2	C01	184	184	184	Placeholder BPD to evaluate
											NA	0	0	0	
		Sally Court													Confirm: Carport (Peoria / Salinas Model)?
8.05		Sally Court-3 car	-	-				1	1	1	NA	0	0	0	Security Screened
8.05			-					1	1	1	NA	0	0	0	socurry screened
		 Car vacuum Animal Cage (After 	Hourse	rauel	+		+				NA				Safahi away from KO's
0.05		 Animal Cage (After Vehicle supply storag 		aysj							NA STOR1	0	0	0	Safely away from K9's
8.05	1		e				-	1	1	1	STOR1	48 48	48	48	
8.06		CSI Supply Storage	ance Le	alvan	2		2	1	1		STOR1		48	48	
8.07		Large (Oversize) Evid	ence Lo	скег	-	-		1	1	1	STOR2	80	80	80	
				-		-	-			-	NA	0	0	0	
			-				-			-	NA	0	0	0	
				-		-	-				NA	0	0	0	
			-	-		-	-				NA	0	0	0	
			-	-		-				-	NA	0	0	0	
			-							-	NA	0	0	0	
										-	NA	0	0	0	
			-							-	NA	0	0	0	
										-	NA	0	0	0	
							_				NA	0	0	0	
							_				NA	0	0	0	
											NA	0	0	0	
											NA	0	0	0	
											NA	0	0	0	
											NA	0	0	0	
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)										NA	0	0	0	
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											NA	0	0	0	
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											NA	0	0	0	
											NA	0	0	0	
											NA	0	0	0	
											NA	0	0	0	
)										NA	0	0	0	
	1										NA	0	0	0	
											NA	0	0	0	
)														
	1 1	Subtotals)	0	(D					884	884	884	
		Circulation	30%								(s) - 1	265	265	265	
		Adjusted Net Area										1,149	1,149	1,149	

Space and Site Program

Square Footage Detail

		Milestones		2022	20	030	2040	21	30	40	Space	2022	2030	2040	
Space No:	Support Bldg.			S	affing	Projec	tion		umbe Space		Code	A	rea Total	s	Remarks
		9.00 Shared Staff A	reas												
		Staff Support			-	-				-					
20030		Contractor and the second				-				a constant	17		1000	Corre d	20-Person. Provide access
9.01		Lunch/Break Room						1	1	1	400	400	400	400	outdoor seating area
9.02		Copy/Wkrm						2	2	2	CPY3	260	260	260	Bldg. Shared
9.03		Fitness / Crossfit R	m.					1	1	1	1000	1,000	1,000	1,000	Sim to Oregon City
9.04		ARCON						1	1	1	1000	1,000	1,000	1,000	ARCON / Active Training
9.04		Training Storage						1	1	1	STOR3	144	144	144	Redman suits etc.
		Open Lockers													
9.05		Staff Lockers						74	89	105	LKR4b	740	890	1,050	
9.06		Toilets / Urinal / La	v (Men	i)	1			2	2	2	T3	450	450	450	
9.07		Showers CA ADA						1	1	1	T5	102	102	102	
9.08		Toilets Lav (Wome	n)			-		1	1	1	T2	150	150	150	
9.09		Toilets / Lavs (Wor			8			1	1	1	T1	64	64	64	
9.10		Toilets / Lavs (Ope						3	3	3	47	141	141	141	
9.11		First Aid Rm. / Lac						1	1	1	120	120	120	120	
9.12		First Aid Rm.						2	2	2	100	200	200	200	
		Conference Spaces			-										
9.13		Upstairs Conf Rm.	(12)					1	1	1	CNF12	299	299	299	
9.14		Downstairs Conference	ence Ro	om (12)				1	1	1	CNF12	299	299	299	
		Main Building Supp	ort Spa	ices											
		Loading / Services	Area												
9.15		Delivery Staging						1	1	1	150	150	150	150	
9.16 9.17	8	Delivery Storage Waste Managemen	nt Roon	n	-			1	1	1	STOR2 STOR2	80 80	80 80	80 80	
9.18		Janitorial Supply		-				1	1	1	STOR2	80	80	80	
9.19	8	Janitorial Equipmen	nt					1	1	1	STOR2	80	80	80	
9.20		Janitorial Closets						2	2	2	20	40	40	40	
9.21		IT Server / Radio R	oom					1	1	1	300	300	300	300	
9.22 9.23		Mechanical Room Electrical - Main		_	_	_		1	1	1	200	200	200	200	
9.23		Electrical - Main			-	-		1	1	1	160 100	100	100	100	
9.25		Fire Sprinkler						1	1	1	80	80	80	80	
	ľ.				Ť.			-	-	-	NA	0	0	0	
											NA	0	0	0	
)										NA	0	0	0	
	2									-	NA	0	0	0	
										-	NA	0	0	0	
					1			1			NA	0	0	0	
	,)										NA	0	0	0	
)										NA	0	0	0	
										-	NA	0	0	0	
			-					-			NA	U	0	0	
		Subtotals		0	0		0					6,719	6,869	7,029	
		Circulation	25%									1680	1,717	1,757	
		Adjusted Net Area				-						8,399	8,586	8,786	

Space and Site Program

Square Footage Detail

		Milestones		2022	2030	2040	21	30	40	Space	2022	2030	2040	
Space No:	Support Bldg.			St	affing Pro	jection		umber Space		Code	Ar	ea Total	s	Remarks
		10.00 DOC / Multi-F	Purpos	e / Comn	nunity Mt	<u>g. Rm.</u>								Locate with access to Publ Lobby and secure staff areas.
10.01		DOC / Multi-Purpos	e				50	50	50	20	1,000	1,000	1,000	Need backdrop for PIO, ma be used for polling site. 30/20 Dividable
		 Lectern W/Microp 	hone							NA	0	0	0	
		 LED Monitors 								NA	0	0	0	
		 Media backdrops 								NA	0	0	0	
		 Access to exterior 	plaza		-					NA	0	0	0	
10.02		DOC Storage		<u> </u>	4		1	1	1	200	200	200	200	
10.03		Chair/Table Storage			-		1	1	1	STOR3	144	144	144	Inc. Space for AV
10.04		Food Service Area					1	1	1	200 NA	200 0	200 0	200 0	Catering prep/warming
		Subtotals		0	0	0					1.544	1,544	1,544	
		Circulation	25%	U	U	U					386	386	386	
		Adjusted Net Area	2370							I I	1,930	1,930	1,930	
	1	najastea net riica						-			1,550	2,550	2,550	
		11.00 Firearms Prof	iciency	Range	Support	Bldg.								
11.01	x	Firing Range 25 Yd.					6	6	6	TFR1	3,780	3,780	3,780	Tactical layout / certificatio length. Access to vehicles f props
	x	Range Support							1	NA	0	0	0	
11.02	x	Ready Room					1	1	1	200	200	200	200	Prep. room / issue equipm
11.03	x	Acoustic Vestibule					1	1	1	80	80	80	80	
11.04	x	Target / Training Ar	nmos	torage			1	1	1	200	200	200	200	
	12		iiiiio 3	torage	8 8									
11.05	X	Range Office		s	3		1	1	1	PO2 NA	120	120	120	
	1	K9 Support Spaces							-		-		0	In Sally Court?
11.06		K-9			-				-					Salinas example (Outdoor)
11.00	x	• K9 Tub					1	1	1	ктив	30	30	30	
	1.0000						200							wyswitch range (see site)
	x	 Grooming table 		·			1	1	1	WTBL1	94	94	94	
	X	 Storage Cabinets 					1	1	1	STOR1	48	48	48	Indoor / Outdoor covered
	x	Kennels					1	1	1	KEN	36	36	36	(See Site)
									-	NA	0	0	0	
		Forensis Support		2 0						NA	0	0	0	
11.07	x	CSI Vehicle Exam Ba	av	2 2	8 8		1	1	1	450	450	450	450	
11.07	^	Chemical Lab	-y				1	1	1	200	200	200	200	Additional Space in Veh. La (Sim to Aspen CO)
	ť.	Fume Hood							1	NA	0	0	0	
	ť.	Cyanoacrylate Cab	inets							NA	0	0	0	
	ť.	Dusting Station								NA	0	0	0	
	ĺ.	Worktable								NA	0	0	0	
	0	• 1 Deep Sink + 1 Al	DA Sin	k						NA	0	0	0	
	0	Emergency Eyewa	sh/Sh	ower						NA	0	0	0	
										NA	0	0	0	
		Misc. Storage								NA	0	0	0	
11.09	x	Community Outread	h Supp	oly Storag	ge		1	1	1	STOR3	144	144	144	Popup displays etc.
11.10	x	Homeless Safekeep	ing Sto	orage			1	1	1	150	150	150	150	

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Space and Site Program

Square Footage Detail

		Milestones		2022	2030	2040	21	30	40		2022	2030	2040	
Space No:	Support Bldg.		Staffing Projection				Number of Spaces			Space Code	Area Totals		Remarks	
				· · · ·										
		Animal Control												
11.11	x	Office Workstation					1	1	1	KTUB	30	30	30	W/Swivel ramp (See Site)
	x	Bulk Storage					1	1	1	STOR3	144	144	144	Gloves, cleaning supplies et
	x	Freezer for deceased animals					1	1	1	REF2	24	24	24	
	x	Kennels					6	6	6	KEN	216	216	216	Indoor / Outdoor covered (See Site)
	x	Toilet					1	1	1	T1	64	64	64	
										NA	0	0	0	
		Bicycle Patrol												
11.12	x	Bicycle Storage					8	10	10	BKE1	56	70	70	Large door to ride in / out. Compressed air.
	х	Workbench					1	1	1	CNTR1	12	12	12	Butcher block
	X	Open Floor/Truing	en Floor/Truing Stand/Lockers				1	1	1	100	100	100	100	Power for "e" bikes
										NA	0	0	0	
		Washer / Dryer								NA	0	0	0	
11.13	X	Washer / Dryer					1	1	1	100	100	100	100	Need Water / San. Connections
								-		NA	0	0	0	
	8	Subtotals		0	0	0					6,278	6,292	6,292	
		Circulation	15%								942	944	944	
		Adjusted Net Area									7,220	7,236	7,236	

Space and Site Program

Site Needs Calculation

BPD Police Department Parking / Site					
Parking		2040		2040	Remarks
Secure Staff Parking					
Total Staff (Largest Shift)		53	AUTO1	15,488	Minus shifted dispatchers
Administration					
Admin.		6	AUTO2	2,160	
Detectives					
Detectives' - Unmarked		8	AUTO2	2,880	
Detectives - Offinarked		0	AUTUZ	2,000	
Patrol					
Officer POV - Incoming		18	AUTO1	5,310	
Officer POV - Outgoing		18	AUTO1	5,310	
Fleet Patrol Cars - Marked		14	AUTO2	5,040	
Fleet Patrol Cars - Unmarked		1	AUTO2	360	
3-Car Sally Court		3	550	1,650	
Emergency Communications					
Communicators POV - Incoming		7	AUTO1	2,065	
Communicators POV - Outgoing		7	AUT01	2,065	
Specialty Vehicles					Council Conference accilence un
MCS Mobile Community Substation		1.5	600	900	Covered - Confirm size 36+ feet? pull thru space?
Polaris Ranger		1	AUTO1	295	
CSRT Trailer		1	AUTO2	360	
Homeless Pick-up		1	AUTO2	360	
Animal Control Trucks		2	AUTO2	720	
DUI Checkpoint		1	AUTO2	360	
Evac Trailer		1	AUTO2	360	
CSO Vehicles					
Pick-up Truck		3	AUTO2	1,080	
		3	AUTOZ	1,000	
Traffic					
Motorcycles	4	2	MOTOR	316	Covered and secure spaces
Dirt Bikes	2	1	AUTO1	295	in Support Bldg.
Subtotal		149		47,374	
Vacation / Sick Factor (Deduction)	15%	-22		-8,046	5500
Based On Staff Spaces Only		127		0,0.0	an process Ma
Secure (Motorcourt) Parking				39,328	Walled perimeter - Controlled acces
Circulation Factor	35%			13,765	
Total Secure Parking Area (Surface Parking A				20,700	

Space and Site Program

Site Needs Calculation

Visitor Parking		23	AUTO1	6,785	50% of Community Meeting Rm.
Safety Vehicle Sign Off		2	AUTO2	720	
Circulation Factor	35%			2,627	
Total Visitor Parking Area				10,132	
Total Parking				63,224	
Building Footprint + Other Site Need	s				
Total SF Footprint 2-Level Main Buildir	ng (60% Firs	t/40% Sec	ond Floor)	24,520	
Total SF Footprint 1-Level Support Buil	ding			8,321	
Found Property Bike Storage		20	BKE2	240	Covered and securely fenced cage
Wash rack				450	Used by Patrol and Animal Control
K-9 Agility Course (Sim to Escondido)				5,000	Allowance
Homeless Conservator / Storage Space	2	100		600	Lockable / away from bldg.
Controlled Motorcourt Entry and Exit				2,000	
Emergency Generator & Fuel Tanks				1,000	
Trash Dumpster Enclosure / Loading A	rea			1,500	
Secure Site				96,723	
Secure Site + Visitor Parking				106,855	
Setback				21,248	20, 25, 10, 10
Landscaping Area	10%			10,685	
Total Building + Site Needs + Setback		1		235,511	
* Does Not Include Allowance for Stormy	5.41	All Parking at Grade			
				25.552	
Secure (Motorcourt) Parking (in Garag				25,563	Walled perimeter - Controlled acces
Circulation Factor	35%			8,947	
Total Secure Parking Area (Structure	d Parking)			34,510	
Visitor Parking		23	AUTO1	6,785	50% of Community Meeting Rm.
Safety Vehicle Sign Off		2	AUTO2	720	
Circulation Factor	35%			2,627	
Total Visitor Parking Area				10,132	
Total Parking				44,642	
Building Footprint + Other Site Need	s				
Total SF Footprint 2-Level Main Buildir					
Total SF Footprint 1-Level Support Buil	ding			8,321	
Found Property Bike Storage		20	BKE2	240	Covered and securely fenced cage
Wash rack				450	Used by Patrol and Animal Control
K-9 Agility Course (Sim to Escondido)				5,000	Allowance
Homeless Conservator / Storage Space	e			600	Lockable / away from bldg.
Controlled Motorcourt Entry and Exit				2,000	
Emergency Generator & Fuel Tanks				1,000	
Trash Dumpster Enclosure / Loading A	rea			1,500	
				78,141	
Secure Site				00 070	
Secure Site Secure Site + Visitor Parking				88,273	
Secure Site				19,312	20, 25, 10, 10
Secure Site Secure Site + Visitor Parking	10%				20, 25, 10, 10

SPACE STANDARDS



Space Standard Diagrams

SPACE STANDARDS SIMPLY ILLUSTRATE HOW SPACES MIGHT BE CONFIGURED

Uniform Space Standards

Space standard illustrations graphically portray spaces used repetitively in the preceding space spreadsheets. They are not meant to define how furniture might eventually be grouped and placed, but it is typically easier to understand spatial requirements from a visual portrayal than from numbers on a chart.

Each space standard is assigned a code.

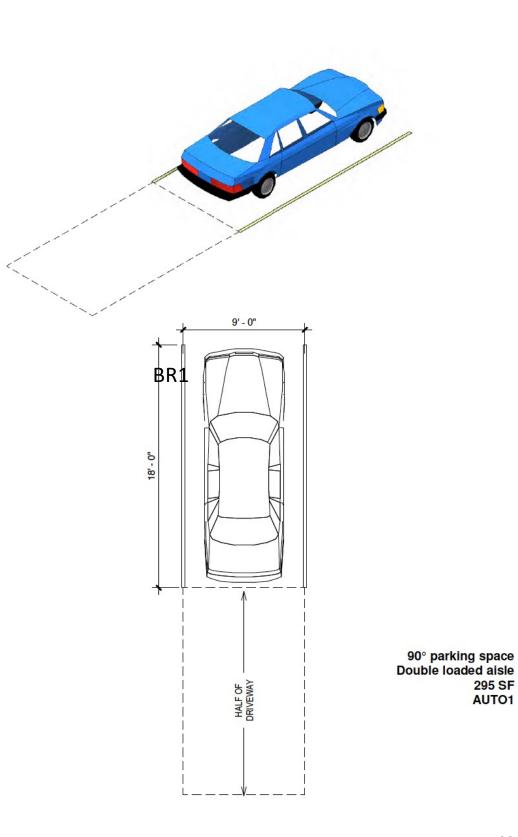
Wherever a **PO** is identified that represents a private office. Wherever **OP** is identified it represents an open plan or systems workspace.

Space Standard Notes

Many space standard graphics illustrate key supporting items to be considered as part of that space.

Draft January 6, 2022

Space Standard Diagrams

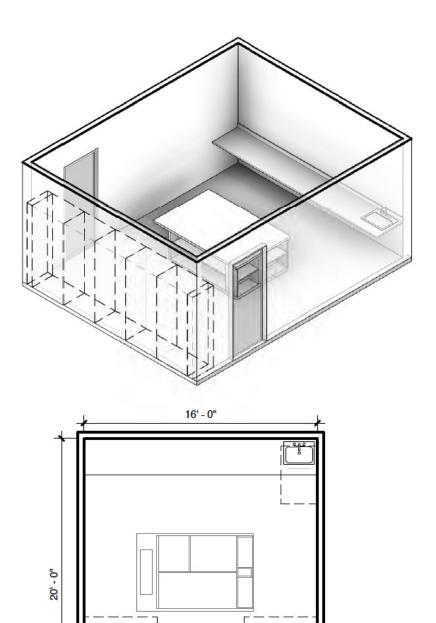


2

295 SF AUTO1

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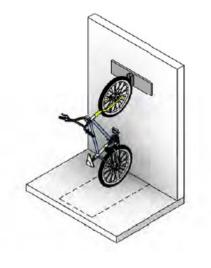
Space Standard Diagrams

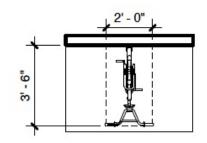


Bag and Tag Room w/table 320 SF BAG2

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Space Standard Diagrams

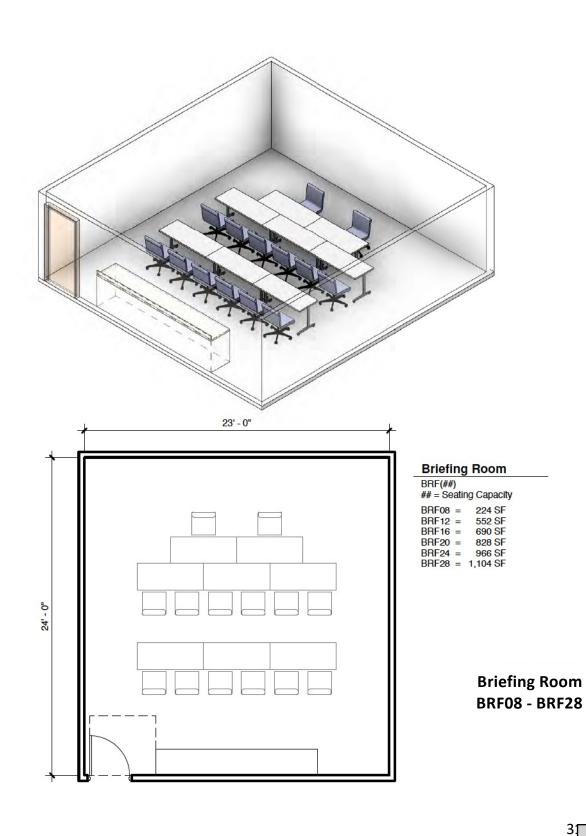




Bike Vertical Storage 7 SF BKE 1

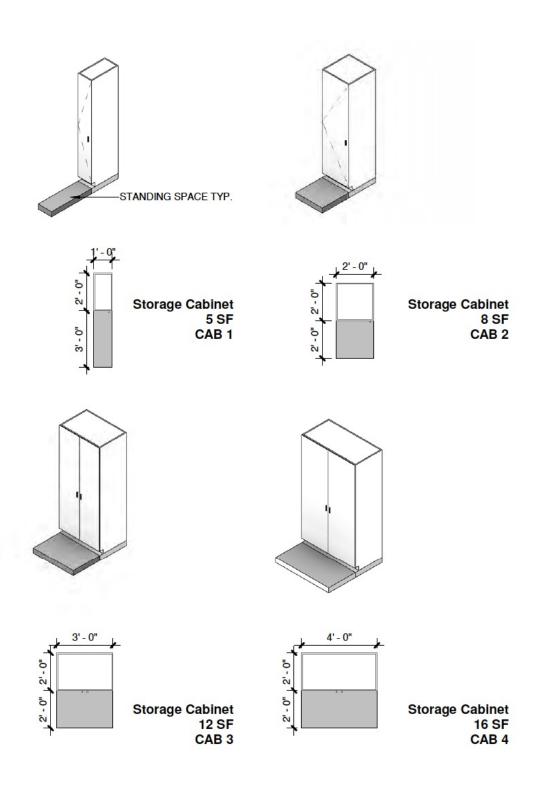
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Space Standard Diagrams



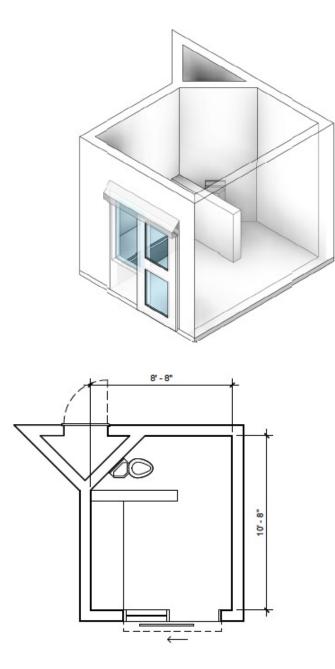
Draft January 6, 2022

Space Standard Diagrams



Draft January 6, 2022

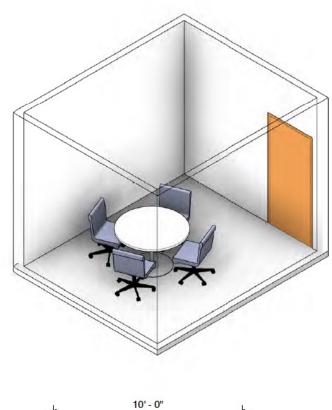
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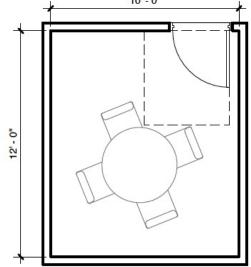


Cell - Single 92 SF C01

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Space Standard Diagrams

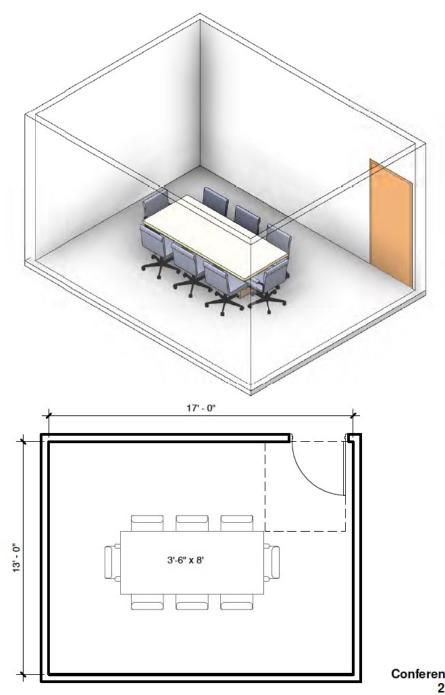






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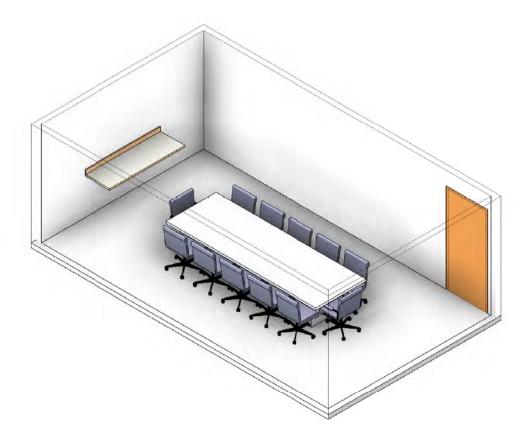
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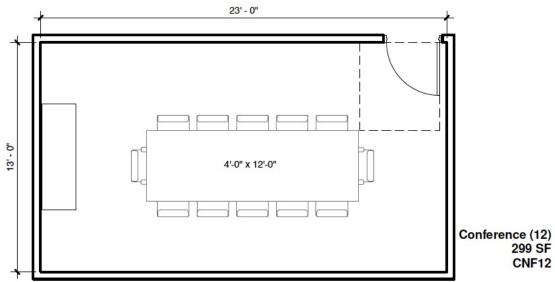


Conference (8) 221 SF CNF08

Draft January 6, 2022

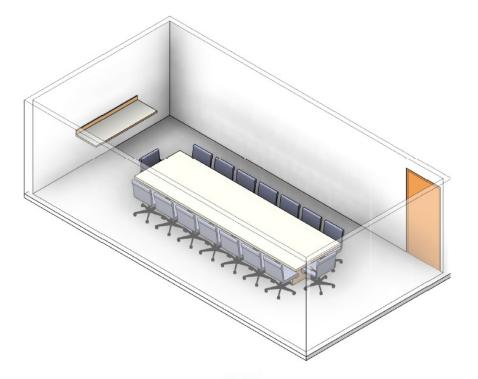
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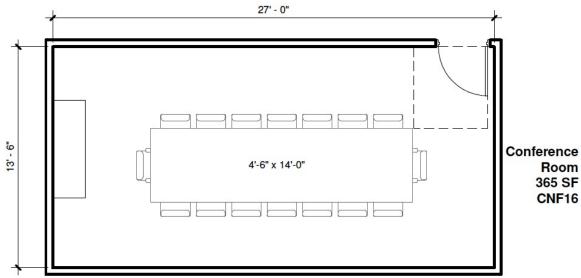




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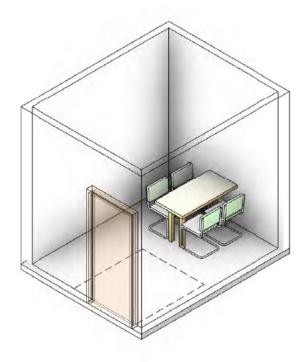
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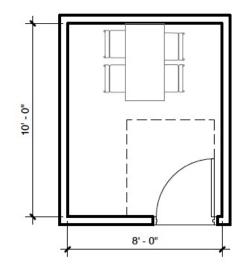




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Space Standard Diagrams

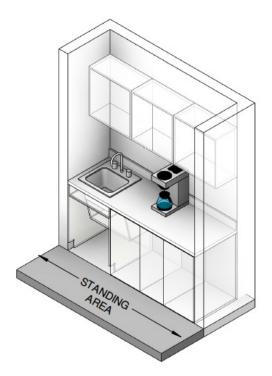


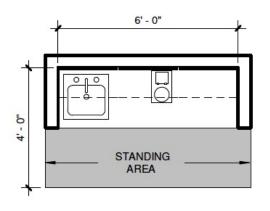


Small Private Consultation/ Report Taking 80 SF CNSL1

Draft January 6, 2022

Space Standard Diagrams

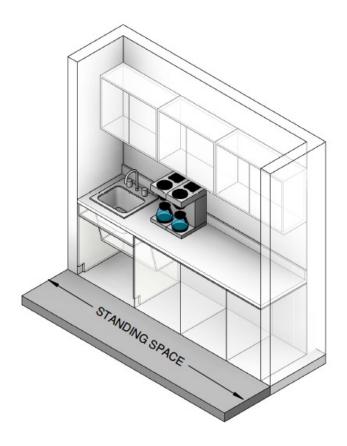


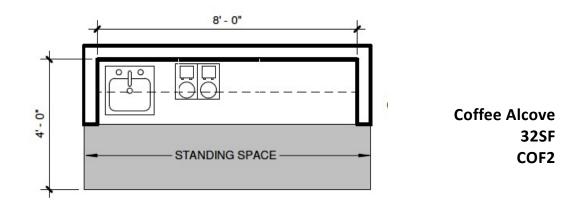


Coffee Alcove 24SF COF1

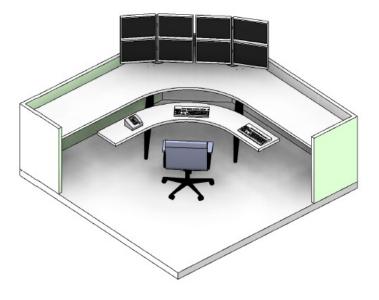
Draft January 6, 2022

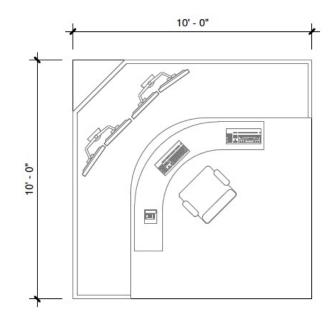
Space Standard Diagrams





Space Standard Diagrams

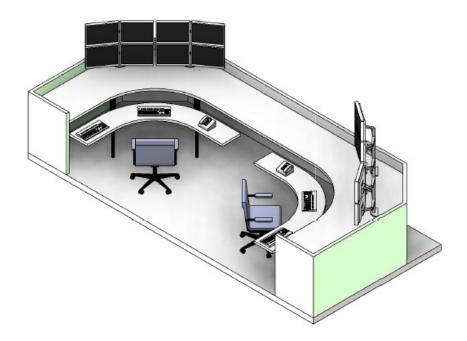


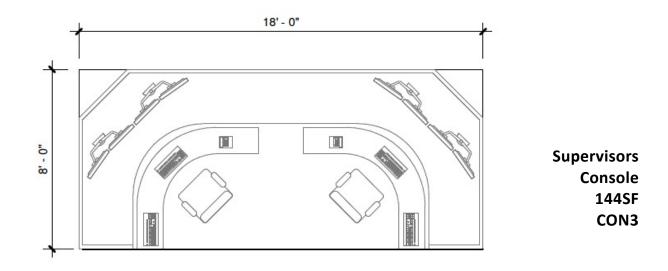


Communications Console 100SF CON2

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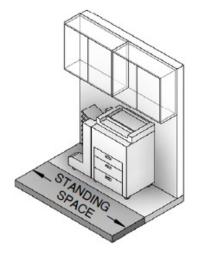
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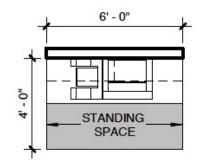




Draft January 6, 2022

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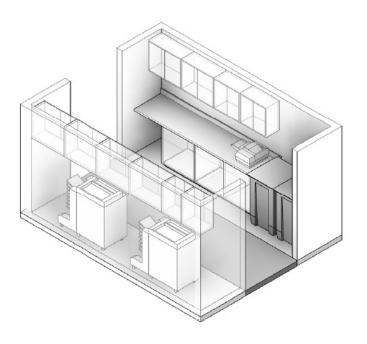


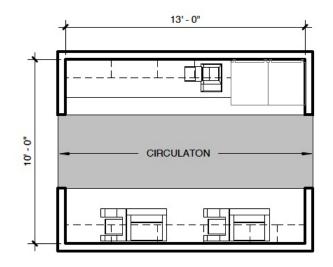


Copy / Alcove 24 SF CPY1

Draft January 6, 2022

Space Standard Diagrams

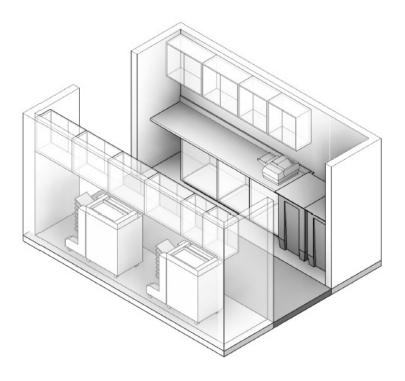


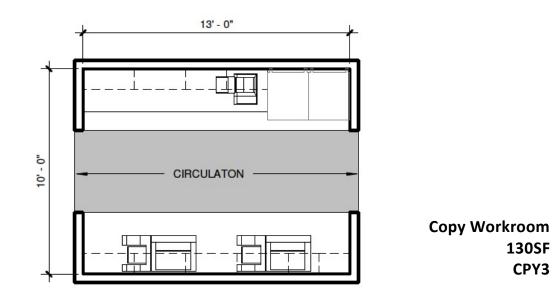


Copy Workroom 80SF CPY2

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Space Standard Diagrams





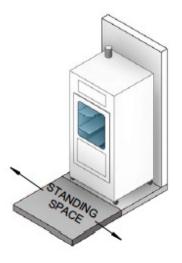
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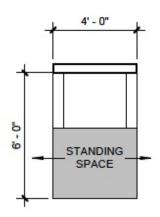
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130SF CPY3

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Space Standard Diagrams

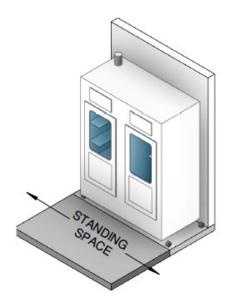


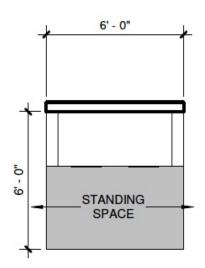


Evidence Drying Cabinet 24 SF DRY 1

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Space Standard Diagrams

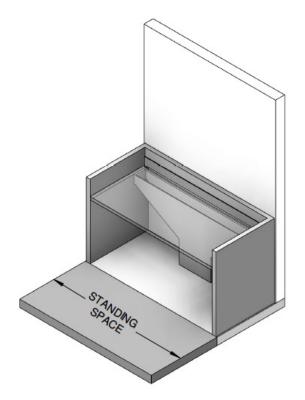


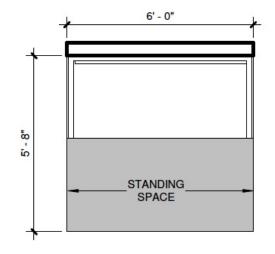


Evidence Drying Cabinet - Large 36 SF DRY 2

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Space Standard Diagrams

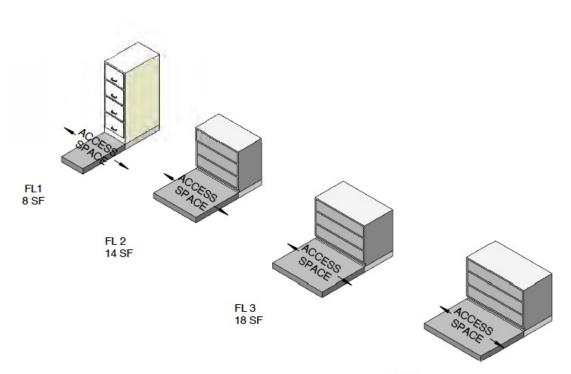




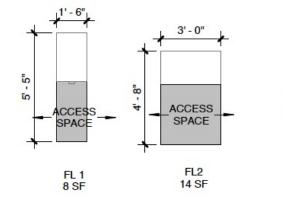
Dusting Station 34 SF DS

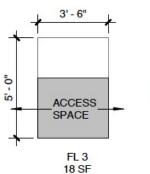
Draft January 6, 2022

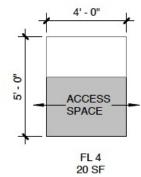
Space Standard Diagrams



FL 4 20 SF



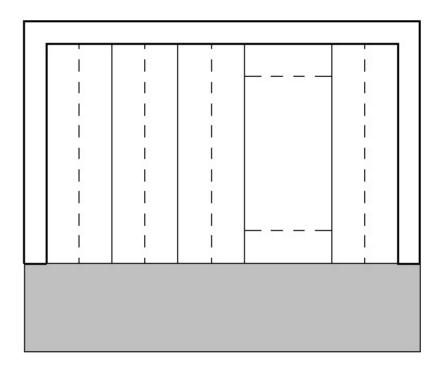


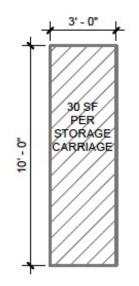


Filing cabinets Varies SF FL

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Space Standard Diagrams

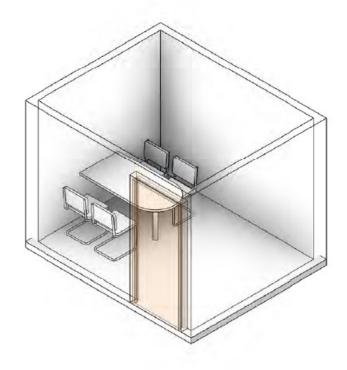


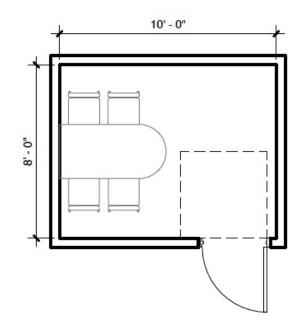


High Density Files 30 SF PER 3' X 10' carriage PLUS access 100 SF HDFL

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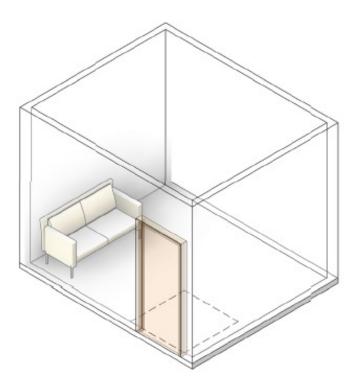
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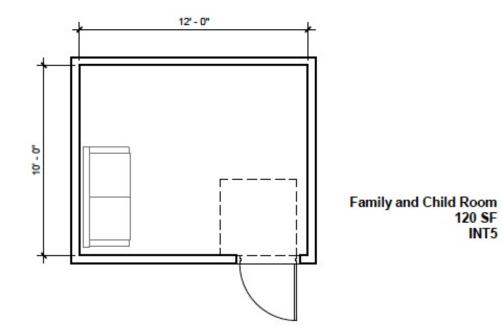




Interview Room 80 SF INT1

Space Standard Diagrams

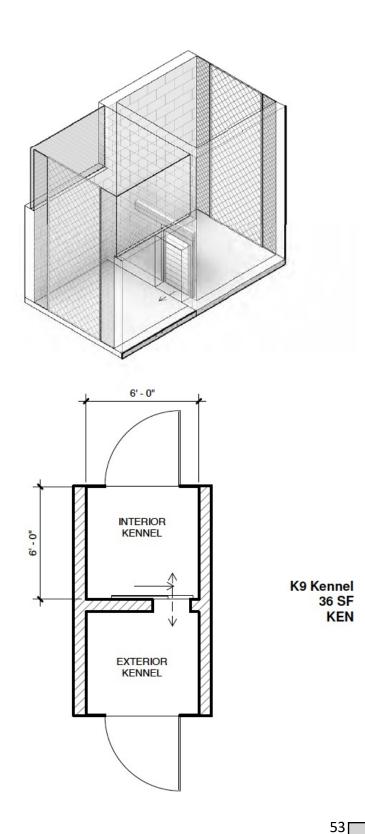




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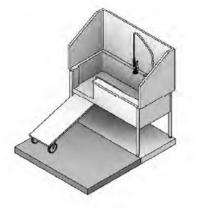
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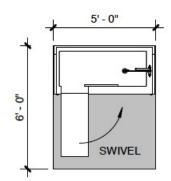
Space Standard Diagrams



Draft January 6, 2022

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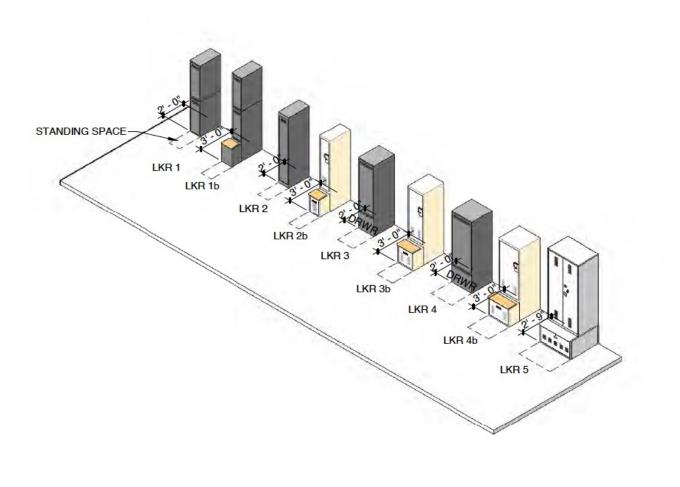


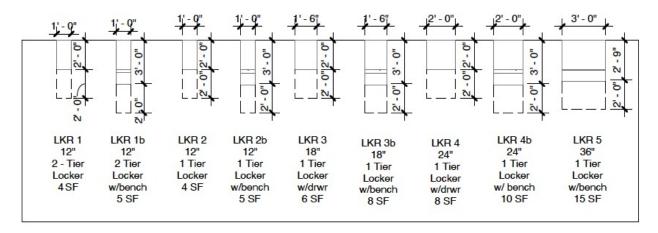


K9 Tub with Swivel Ramp 30 SF KTUB

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Space Standard Diagrams

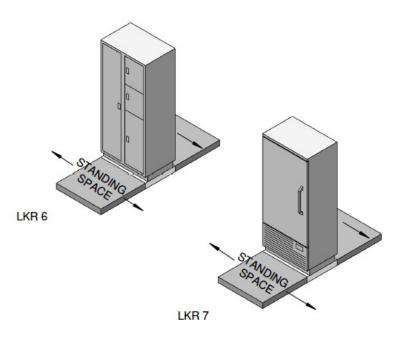


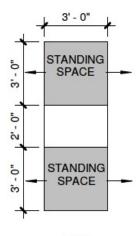


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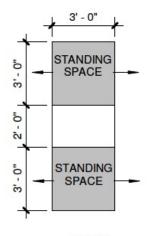
Draft January 6, 2022

Space Standard Diagrams





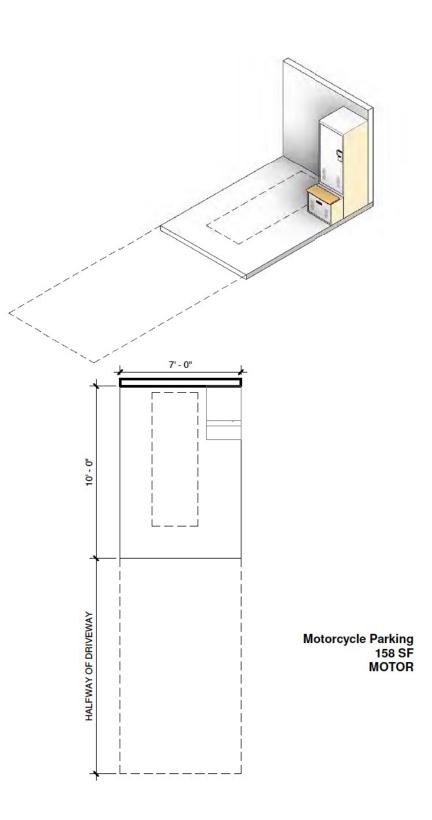
LKR 6 Evidence Locker 24 SF



LKR 7 Evidence Cooling Locker 24 SF

Draft January 6, 2022

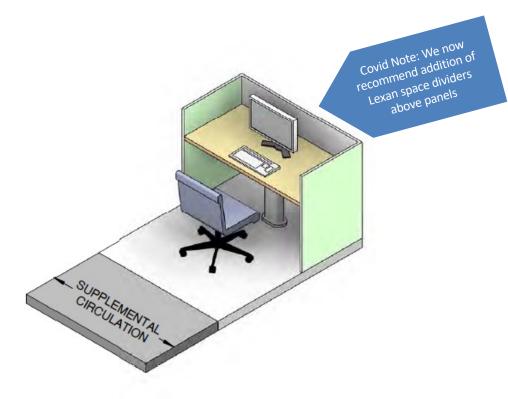
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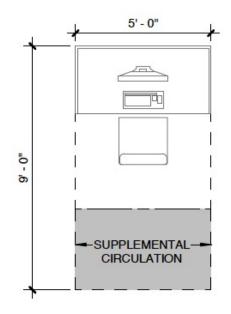


739

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Space Standard Diagrams

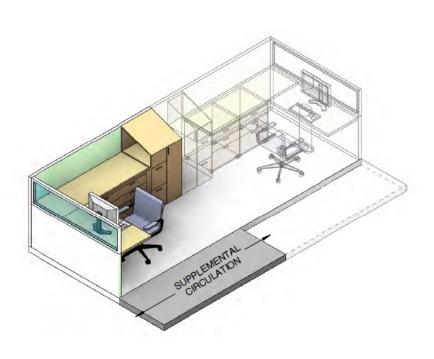


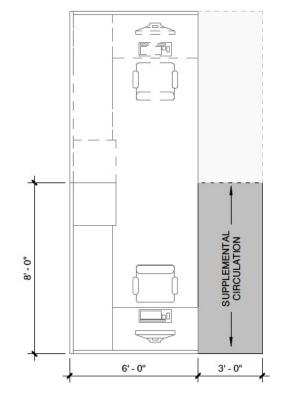


Open Office Workstation 45 SF OP1

Draft January 6, 2022

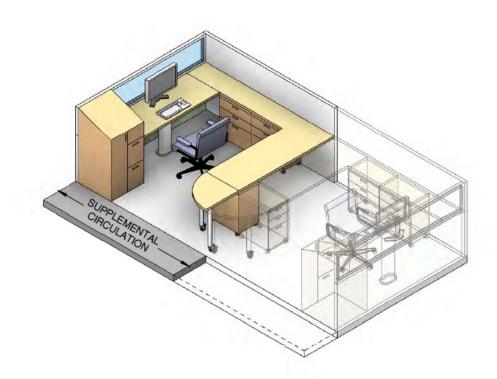
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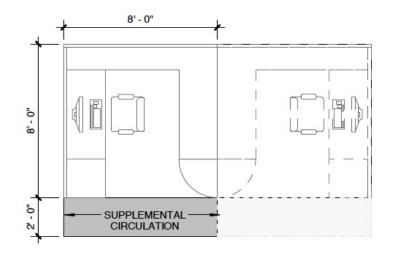




Open Office Workstation 72 SF OP3

Space Standard Diagrams



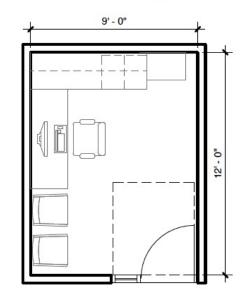


Neighborhood Workstation 80 SF OP4

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Space Standard Diagrams

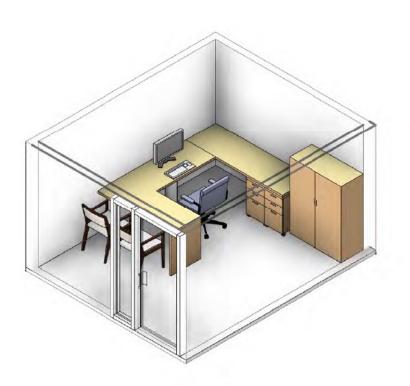


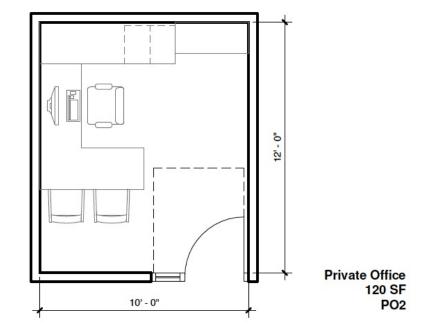


Private Office 108 SF PO1

Draft January 6, 2022

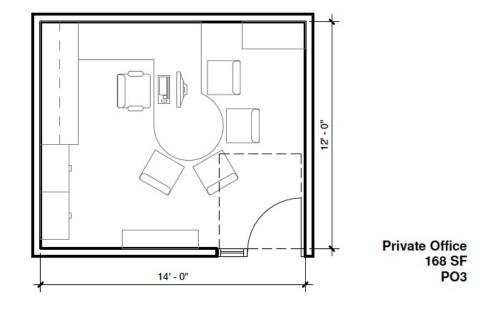
Space Standard Diagrams





Space Standard Diagrams

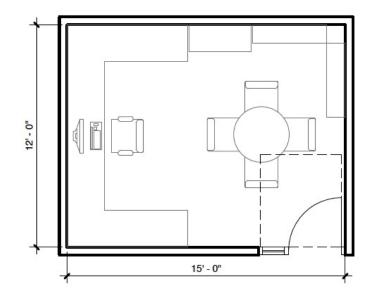




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Space Standard Diagrams

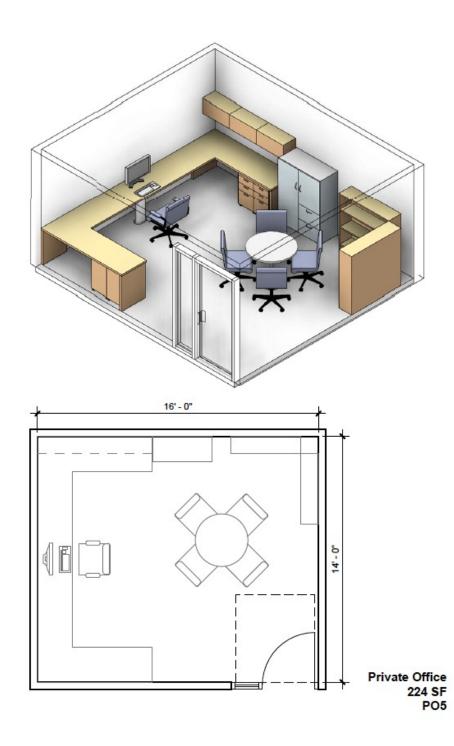




Private Office 180 SF PO4

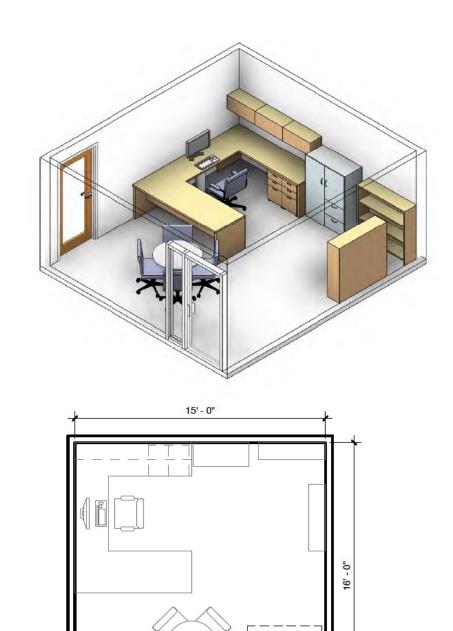
Draft January 6, 2022

Space Standard Diagrams



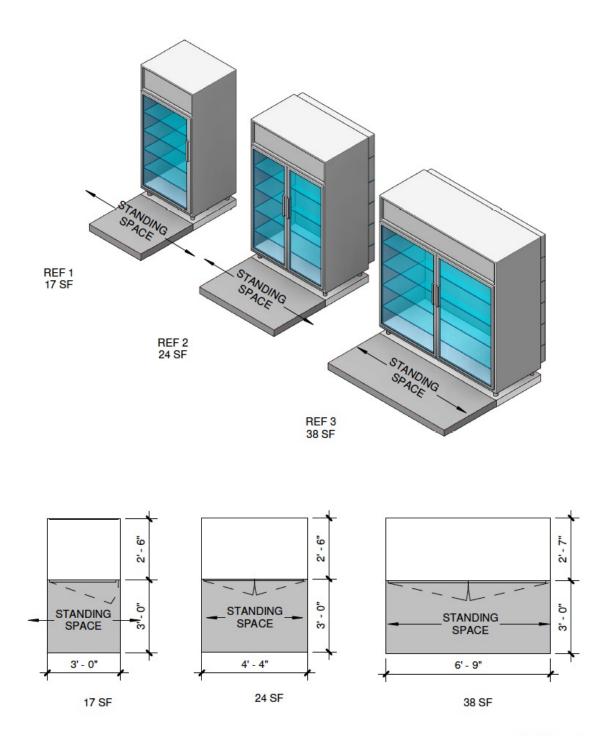
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Space Standard Diagrams



Private Office 240 SF PO6

Space Standard Diagrams

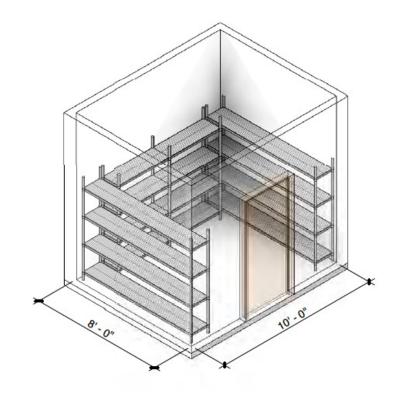


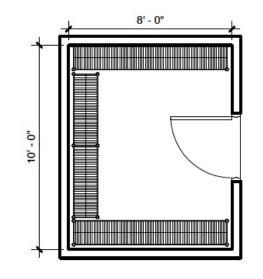
Refrigerator Varies SF REF

749

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Space Standard Diagrams

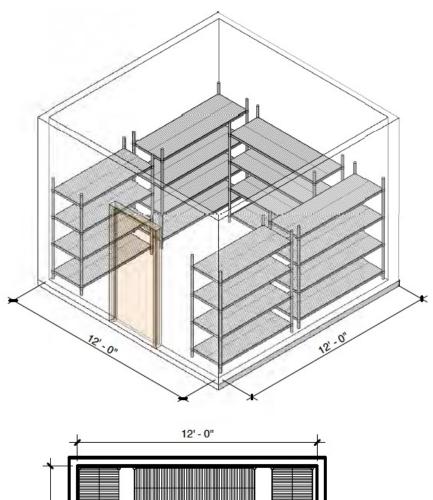


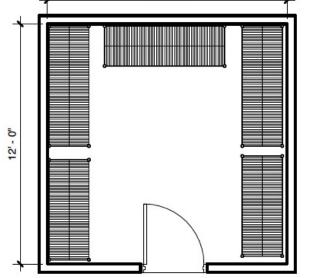


Storage Room Standard 80SF STOR 2

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Space Standard Diagrams

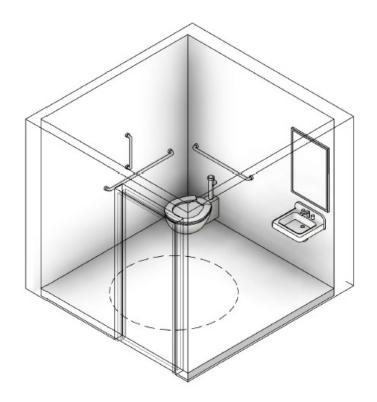


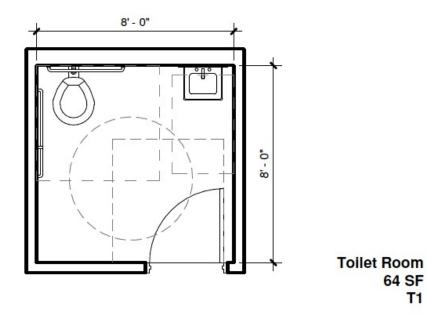


Storage Room Large 144 SF STOR 3

Draft January 6, 2022

Space Standard Diagrams

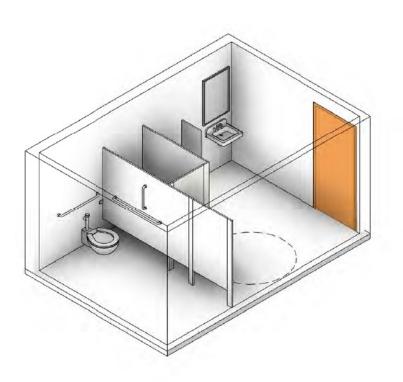


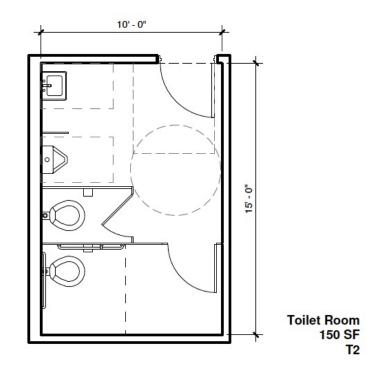


T1

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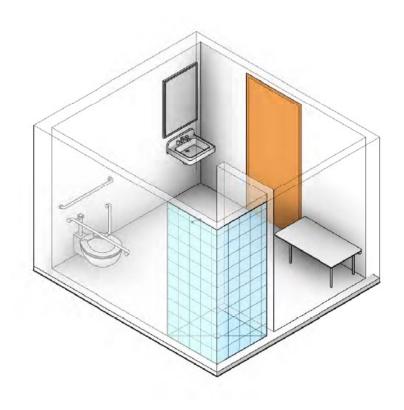
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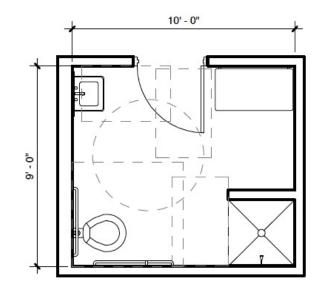




Draft January 6, 2022

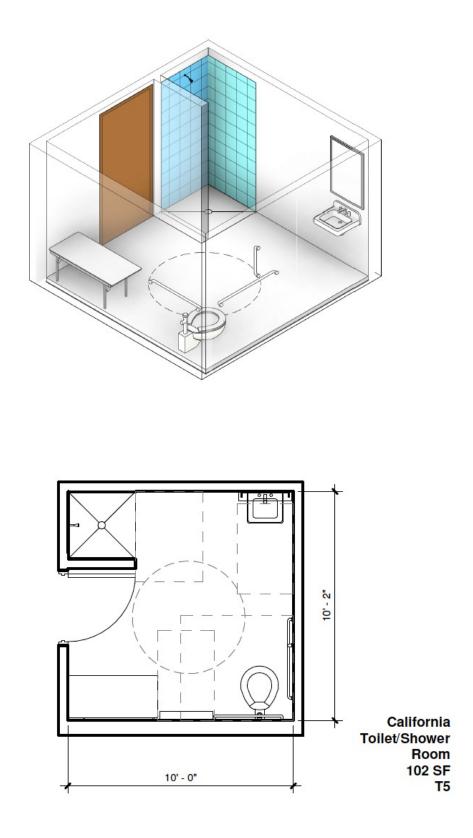
Space Standard Diagrams





Combination Toilet/Shower 90 SF T4

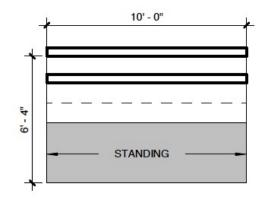
Space Standard Diagrams



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Space Standard Diagrams

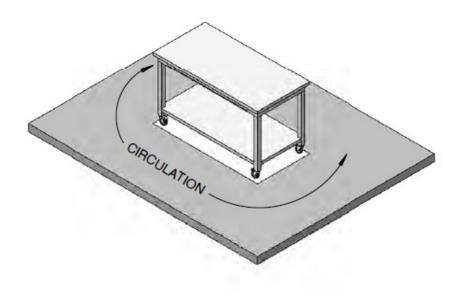


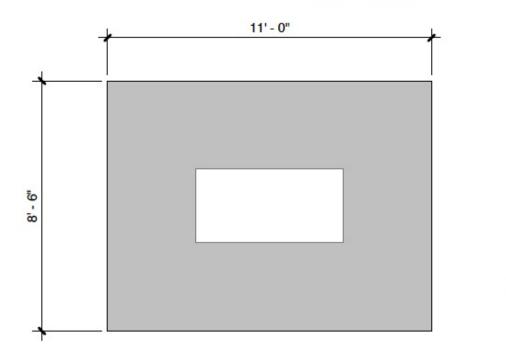


Weapons Maint. 63 SF WM

THE CITY OF BEAUMONT POLICE DEPARTMENT FACILITY SPACE NEEDS ASSESSMENT

Space Standard Diagrams





Work Table 94 SF WTBL1

75

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BEAUMONT POLICE DEPARTMENT Color Color

View Camera



Staff Report

SUBJECT:	Approve the Purchase and Installation of Mobile
DATE	February 1, 2022
FROM:	Doug Story, Assistant Community Services Director
TO:	City Council

Background and Analysis:

In 2019, City Transit staff purchased a Mobile View surveillance camera system for one of the Transit buses after a 90-day demonstration period. The City then purchased three buses for the Transit fleet, each with a Mobile View camera surveillance system installed by the dealer. The surveillance system has proven to meet the needs of passenger and driver safety and is industry standard for transportation fleets.

System on 18 Public Transportation Buses, Not to Exceed \$110,000

Purchasing 18 additional camera systems will create a uniform and functional surveillance system for the Transit fleet. Safe Fleet is the only vendor for the Mobile View camera system and has provided a quoted price of \$106,303 (Attachment A).

Fiscal Impact:

This project is fully funded by LCTOP grant funding and STA capital funding. This project is listed on the capital improvement project list and has been assigned as Project T-08. There is no impact on the General Fund. City staff estimates the cost to prepare this report to be \$95.

Recommended Action:

Approve the purchase of a Mobile View camera system in an amount not to exceed \$110,000 as part of capital improvement project CIP T-08 and authorize City staff to issue a purchase order for the procurement and installation of camera systems on 18 Beaumont Transit buses.

Attachments:

A. Safe Fleet Quote



Date: 08/12/2021 Proposal #: Q-02744 Expiry Date: 06/02/2022 End User:

PREPARED BY:

Tanner Thompson

PREPARED FOR: Elisa Mendoza Manager SOLD TO DETAILS City of Beaumont Transit Services 550 East 6th St. Beaumont, California 92223 United States

(951) 769-8522 emendoza@beaumontca.gov BILLING DETAILS City of Beaumont Transit Services 92223 US

SHIPPING DETAILS

City of Beaumont Transit Services 550 East 6th St. Beaumont, CA 550 East 6th St. Beaumont, CA 92223 US

Corporate Office: 1.877.630.7366 Unit 111, 3B Burbidge Street Coquitlam, BC V3K 7B2 rgougeon@safefleet.net

8 Cam System

QTY	PRODUCT	DESCRIPTION	CAMERA LOCATION	UNIT PRICE	TOTAL PRICE
3	ТН8Н2Т0	TH8 DVR, 8 HD Channels, 2 IP Channels, Audio, Security Front Cover with Lock Set, Mounting Plate, Power Harness, 2TB Single HDD DVR 2TB Storage		USD 1,968.00	USD 5,904.00
3	WT2E20S20G4	Wire bundle with adapter harness, RGY-Button and interconnect cable 20 ft., 5 signal inputs 20 ft., GPS receiver magnetic mount 20 ft. for compatible DVR Wire Bundle		USD 185.00	USD 555.00
3	HD3Q03A20	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 20' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Windshield <road< td=""><td>USD 278.00</td><td>USD 834.00</td></road<>	USD 278.00	USD 834.00
3	CHQ-MP4A30	CHQ mounting post, 4 inch, 30 degree angle Post for Windshield Camera		USD 51.00	USD 153.00
3	HD3Q03A20	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 20' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Driver < Step	USD 278.00	USD 834.00
3	HD3Q03A50	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 50' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Cross-view	USD 304.00	USD 912.00
3	HD3Q03A20	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 20' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Front < Rear	USD 278.00	USD 834.00
3	HD3Q03A50	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 50' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Rear < Forward	USD 304.00	USD 912.00
3	HD3W03EI50	HD Camera, Wedge, 2.8mm, external, IR TDN, 50' harness, to use with TH6 and TH8 DVRs	Ext. Curb <rear< td=""><td>USD 355.00</td><td>USD 1,065.00</td></rear<>	USD 355.00	USD 1,065.00
3	HD3W03EI20	HD Camera, Wedge, 2.8mm, external, IR TDN, 20' harness, to use with TH6 and TH8 DVRs	Ext. Road <rear< td=""><td>USD 328.00</td><td>USD 984.00</td></rear<>	USD 328.00	USD 984.00



SEON MobileView



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QTY	PRODUCT	DESCRIPTION	CAMERA LOCATION	UNIT PRICE	TOTAL PRICE
3	RVC400E75	RVC400 with a 75 ft. M12 to Micro-Fit harness	Ext. Reverse	USD 189.00	USD 567.00
3	RVM2-SP	Rear Vision 7 Inch LCD Monitor for use with DVR's with 2x3 MicroFit camera ports. Includes splitter, 20' camera harness, bracket, hardware kit and sunshade. No < 60 sec delay due to DVR/NVR boot up Rearview Monitor		USD 253.00	USD 759.00
3	085-1002	ANT,White,1x1,Dual Band WiFi,1.8M,RP-SMA Male Wi-Fi Antenna		USD 130.00	USD 390.00
3	SRLN07NP	SmartReach Lite,2.4/5GHz,ANT,No POE,-N Wi-Fi Bridge and Antenna		USD 192.00	USD 576.00
3	FRGT-TH8-WG	Freight,FedEx Ground,W,TH8 System Freight		USD 37.00	USD 111.00
1	FRGT-SURCHARGE-L	Freight, Shipping & Handling Surcharge Surcharge only charged once for the whole order.		USD 100.00	USD 100.00
3	INST-TRCAMSYS	Installation TX/DX/TH/NX DVR with one analog camera/GPS and Signals DVR + 1 Cam		USD 447.00	USD 1,341.00
12	INST-INTCAM	Installation, CQ/CJ/CHQ/HD1Q/HD2Q/HD3Q/ HD3U/C3Q/C8 cameras Interior Cams		USD 53.00	USD 636.00
6	INST-EXTCAM	Installation, CA/CHW/HD1W/HD1S/HD3W/HD3S/ C3W/RVC400 cameras Exterior Cams		USD 79.00	USD 474.00
3	INST-RVM	Installation, Rear Vision Monitor Rear View Cams		USD 132.00	USD 396.00
3	INST-SRLB	Installation Smart Reach Wireless Bridge Antenna Install		USD 81.00	USD 243.00
		•	8 Cam Sy	stem Total:	USD 18,580.00

7 Cam System

QTY	PRODUCT	DESCRIPTION	CAMERA LOCATION	UNIT PRICE	TOTAL PRICE
15	ТН8Н2Т0	TH8 DVR, 8 HD Channels, 2 IP Channels, Audio, Security Front Cover with Lock Set, Mounting Plate, Power Harness, 2TB Single HDD DVR with 2TB of Storage		USD 1,968.00	USD 29,520.00
15	WT2E20S20G4	Wire bundle with adapter harness, RGY-Button and interconnect cable 20 ft., 5 signal inputs 20 ft., GPS receiver magnetic mount 20 ft. for compatible DVR Wire Bundle		USD 185.00	USD 2,775.00

SEON MobileView

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QTY	PRODUCT	DESCRIPTION	CAMERA LOCATION	UNIT PRICE	TOTAL PRICE
15	HD3Q03A20	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 20' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Windshield <road< td=""><td>USD 278.00</td><td>USD 4,170.00</td></road<>	USD 278.00	USD 4,170.00
15	HD3Q03A20	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 20' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Driver < Step	USD 278.00	USD 4,170.00
15	HD3Q03A50	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 50' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Rear < Forward	USD 304.00	USD 4,560.00
15	HD3Q03A20	HD 1080P Camera, Dome, 2.8mm, internal, audio, IR TDN, 20' harness — to use with DH4C, TH6, TH8, and NH16 DVRs	Front < Rear	USD 278.00	USD 4,170.00
15	RVC400E75	RVC400 with a 75 ft. M12 to Micro-Fit harness	Ext. Reverse	USD 189.00	USD 2,835.00
15	HD3W03EI50	HD Camera, Wedge, 2.8mm, external, IR TDN, 50' harness, to use with TH6 and TH8 DVRs	Ext. Curb <rear< td=""><td>USD 355.00</td><td>USD 5,325.00</td></rear<>	USD 355.00	USD 5,325.00
15	HD3W03EI20	HD Camera, Wedge, 2.8mm, external, IR TDN, 20' harness, to use with TH6 and TH8 DVRs	Ext. Road <rear< td=""><td>USD 328.00</td><td>USD 4,920.00</td></rear<>	USD 328.00	USD 4,920.00
15	RVM2-SP	Rear Vision 7 Inch LCD Monitor for use with DVR's with 2x3 MicroFit camera ports. Includes splitter, 20' camera harness, bracket, hardware kit and sunshade. No < 60 sec delay due to DVR/NVR boot up Rearview Monitor		USD 253.00	USD 3,795.00
15	SRLN07NP	SmartReach Lite,2.4/5GHz,ANT,No POE,-N Wi-Fi Bridge and Antenna		USD 192.00	USD 2,880.00
15	CHQ-MP4A30	CHQ mounting post, 4 inch, 30 degree angle Post for Windshield Camera		USD 51.00	USD 765.00
15	085-1002	ANT,White,1x1,Dual Band WiFi,1.8M,RP-SMA Male Wi-Fi Antenna		USD 130.00	USD 1,950.00
15	FRGT-TH8-WG	Freight,FedEx Ground,W,TH8 System Freight		USD 37.00	USD 555.00
15	INST-TRCAMSYS	Installation TX/DX/TH/NX DVR with one analog camera/GPS and Signals DVR + 1 Cam		USD 447.00	USD 6,705.00
45	INST-INTCAM	Installation, CQ/CJ/CHQ/HD1Q/HD2Q/HD3Q/ HD3U/C3Q/C8 cameras Interior Cams		USD 53.00	USD 2,385.00
30	INST-EXTCAM	Installation, CA/CHW/HD1W/HD1S/HD3W/HD3S/ C3W/RVC400 cameras Exterior Cams		USD 79.00	USD 2,370.00
15	INST-RVM	Installation, Rear Vision Monitor Rear View Cams		USD 132.00	USD 1,980.00





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QTY	PRODUCT	DESCRIPTION	CAMERA LOCATION	UNIT PRICE	TOTAL PRICE
15	INST-SRLB	Installation Smart Reach Wireless Bridge Antenna Install		USD 81.00	USD 1,215.00
16	INST-SYSRMVL	Removal of Existing System		USD 43.00	USD 688.00
			7 Cam Sy	stem Total:	USD 87,733.00

Total: USD 106,313.00

Safe Fleet Preventative Maintenance Program

Ensure your fleet safety systems are running optimally, increasing system and safety performance and reducing operational cost.

ASK US HOW IT WORKS



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Item 8.



All purchases must be confirmed with an authorized signature from the purchaser; company issued purchase orders should be provided for all purchases exceeding \$10,000.00 (in addition to authorized proposal). Any purchases that are exempt from sales taxes must be accompanied by a tax exemption and/or resellers certificate.

By signing this proposal (the "Proposal") (or, if this Proposal is attached to, referenced in, or otherwise accompanies any other agreement, statement of work, purchase order, or other similar document, by or between the parties and/or their applicable affiliates (any of the foregoing, collectively, the "Accompanying Agreement"), then by signing such Accompanying Agreement), the Customer agrees to all terms and conditions set forth herein, including without limitation those set out in this Comments and Terms section, and to the Safe Fleet Video & Telematics Products and Services Standard Customer Terms & Conditions, currently available at safefleet.net/v-and-t-general-terms (as may be updated or amended by Safe Fleet from time to time in its discretion, the "Ts&Cs"), which are incorporated herein and will govern all products, services, and other matters set forth herein. Capitalized terms used but not defined herein shall have the meaning ascribed to them in the Ts&Cs.

Customer and Safe Fleet expressly agree that, notwithstanding anything to the contrary in the Accompanying Agreement, including any provision thereof relating to order of precedence, conflicts, or "battle of the forms," in the event of any conflict, ambiguity, or inconsistency (any of the foregoing, a "Conflict") between any term, provision, requirement, request, specification, or other provision (any of the foregoing, a "Provision") of the Accompanying Agreement and any Provision of this Proposal (including, for clarity, the Ts&Cs), this Proposal shall prevail and control; Customer and Safe Fleet intend this Proposal to be, and this Proposal shall be deemed to be, an amendment to any Conflicting Provision of the Accompanying Agreement.

The warranties applicable to the products, services, and other matters set forth herein are available at <u>https://www.safefleet.net/product-and-service-warranties</u> (the "Warranty Documentation"). Notwithstanding any other provision in this Agreement, the Warranty Documentation sets forth the sole warranties with respect to the products, services, and other matters set forth herein, and Safe Fleet hereby expressly disclaims all other representations and warranties, express or implied.

PO#	Date:	
Name:	 Title:	
Signature:		
Comments:		· · · · · · · · · · · · · · · · · · ·





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Seon Additional Comments & Terms:

Proposed installation prices are based on <u>all</u> vehicles being present and available, in a single location, at the time of scheduled installation. Any offsite installation work or the requirement to return to the site at a later date are subject to additional fees including labor and associated travel costs.

This quote is valid for up to 60 days. All sales are final. A restocking fee of 20% will apply for any product returns and/ or exchanges requested after initial shipment of the product. Note that product returns and/or exchanges will only be accepted for new, unused product that is within the original, unopened packaging.

The following additional terms and conditions apply to Customer's use of the Smart Reach Cellular Router All-in-One (SRC-ROUTER-S-1), and/or Safe Fleet Stream Cellular DATA PLAN, but, in each case solely during the period (if any) for which Customer has purchased a Smart Reach Hotspot plan:

(1) All pricing for Hotspot Cellular Products assumes a three-year commitment by Customer. Typically, Safe Fleet requires payment in full for all hardware in advance. When Customer purchases a Smart Reach Hotspot plan, however, as an added benefit to Customer, Safe Fleet amortizes the cost of hardware over the three-year subscription period. Therefore, in consideration of the foregoing, Customer acknowledges and agrees that, if Customer terminates its wireless subscription prior to the third anniversary thereof for any reason, Customer will, within 30 days of notice of termination, pay an early termination fee equal to the full cost of all hardware purchased by customer, less only the amortized portion thereof for which Safe Fleet has actually received payment as of the effective date of such termination (which amount Safe Fleet will communicate to Customer upon Customer's request). Notwithstanding the foregoing, Customer may pay the full cost of the hardware in full in advance, in which case the three-year commitment and early termination fee will not apply.

(2) Unless otherwise provided in this Proposal, the Smart Reach Hotspot plan permits 60GB of data usage per year. Customer may track data consumption using Safe Fleet data reports, and may purchase additional data if mutually agreed by the Parties in writing. Customer may contact Safe Fleet for current rates. If Customer uses 60 GB of data in a subscription year and has not purchased additional data, Customer may no longer use, and Safe Fleet may terminate, Customer's connection. Annual data not used in the applicable year will be forfeited and will not be credited or rolled over to subsequent years.

The following additional terms and conditions apply to Customer's use of the Smart Reach Cellular Modem (SRC-MODEM-S-1), Smart Reach Cellular Router All-in-One (SRC-ROUTER-S-1), and/or Safe Fleet Stream Cellular DATA PLAN, in each case except during such period (if any) that Customer has purchased, and is current on payment for, a Smart Reach Hotspot plan:

(1) Customer agrees that it will not (a) enable any WIFI hotspot that makes use of any Safe Fleet stream Cellular Data Plan, (b) allow passengers or any other third parties to use any Safe Fleet Stream Cellular Data Plan, or (c) use any Safe Fleet Stream Cellular Data Plan, or (c) use any Safe Fleet Stream Cellular Data Plan for any purpose other than to use the applicable Seon products (e.g., RV50-X and/or MP70 products, as applicable) for their intended purposes, as set forth in applicable Seon documentation.

(2) Without limiting the foregoing, Customer further acknowledges and agrees that Safe Fleet will have no obligation to provide support of any kind to enable, or otherwise relating in any way, to any wifi hotspot that makes use of any of the foregoing Cellular products and/or services.

(3) The Safe Fleet Stream Cellular DATA PLAN offers limited data per month and is intended for use solely for Live Stream video. Customer's data limit is set forth above in this document. Data may be shared among vehicles in





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Customer's fleet. Monthly data not used in the applicable month will be forfeited and will not be credited or roll over to subsequent months. Customer will pay an overage fee per gigabyte of data (prorated for any portion of a gigabyte) used in excess of the monthly limit, at Seon's then-current, applicable pricing. Customer may request the latest overage fee price from Customer's sales representative, by referencing Part Number: DATA-OVERAGE-1G-S.

Thank you for the opportunity to provide a Proposal for your mobile surveillance and fleet management needs. We trust this customized solution will help you meet your goals for passenger and driver safety and security.

Please feel free to contact me directly at 1.877.630.7366 if you have any questions or concerns. We look forward to partnering with you.

Best regards,

Rick Gougeon Sales Manager - Transit West 1.877.630.7366 | rgougeon@safefleet.net





Staff Report

TO: City Council
FROM: Doug Story, Assistant Director of Community Services
DATE February 1, 2022
SUBJECT: Transit Capital Improvement Project Update

Electric Shuttles (T-01)

As part of the VW Mitigation Grant, two electric buses were purchased and delivered in October 2021. These buses have replaced two gas buses which have been sent to a dismantler for destruction. City staff is currently working on the final paperwork and inspection details with VW Mitigation Grant staff. These buses will be charged using the electric charging stations located in the public parking lot across the street from City Hall. The buses were recently delivered and are now being used for the City's Dial-a-Ride program.

Budget: \$540,000

Funding Source: RCTC and VW Mitigation Grant

Fleet Maintenance and Operations Facility (T-02)

In 2019, vacant property located at the corner of Veile Avenue and Fourth Street was purchased by the City for construction of a CNG fuel station, vehicle maintenance facility, Public Works operations facility, and future expansion of the Wastewater Treatment Plant.

Budget: \$1,220,277 Funding Source: RCTC

CNG Fueling Station (2019-0004)

City staff has been working with SoCal Gas on an agreement to design and build the CNG fuel station. City staff has also started discussion of a potential land lease arrangement with Waste Management for the construction of a CNG fuel station for its solid waste collections fleet. City staff is scheduled to meet with SoCal Gas in the next few weeks to continue conversations.

Budget: \$2,839,057

Funding Source: RCTC and Carl Moyer Grant

Bus Stop Rehabilitation and Passenger Amenities (T-03)

This project has two locations identified for bus stop and passenger amenities rehabilitation. The construction at the Walmart location is complete. Final details of informational posters at the location are being designed in house with the Public Information Office. The second location identified for a bus stop rehabilitation is on California Avenue at the Beaumont Library. City staff is designing the construction details for future bid. The remaining funds in the budget will be used for the bus stop at the Beaumont Library.

Budget: \$67,015 Funding Source: RCTC and LCTOP

Shop Building Maintenance (T-04)

This project is to maintain and upgrade the vehicle maintenance building. The first upgrade included internet cabling and the purchase of new computers to be able to more efficiently run maintenance software programs. The next upgrade being considered is the removal and replacement of a concrete slab to support the installation and use of new mobile lifts.

Budget: \$25,856 Funding Source: RCTC

Brand and Logo Update (T-05)

A new Beaumont Transit logo has been designed and implemented as new bus wraps have been installed. Bus stop signs have been purchased and are being installed in phases throughout the City. Remaining funds will be reprogrammed to a new project which will include updating bus stops with new schedule holders, benches, and other amenities. This will be addressed during the Short Range Transit Plan (SRTP) process for FY2023 and then subsequently updated in the capital improvement project list.

Remaining Budget: \$55,824

Funding Source: RCTC

Shop Tools (T-06)

Vehicle maintenance requires the occasional purchase of larger ticket item tools to assist with the maintenance of Beaumont's fleet. Recent purchases include an impact wrench, jump starter, and wheel balancer.

Vehicle Replacement (T-07)

City Council approved the purchase of two 32' EZ Rider II buses on October 5, 2021. This procurement is part of a purchasing cooperative administered by CalAct and the Morongo Basin Transit Authority (MBTA). Delivery of the buses is expected in late 2022.

Budget: \$1,400,000 Funding Source: RCTC

Video Camera Purchase and Installation (T-08)

Beaumont Transit entered into a demonstration agreement with Mobile View Safe Fleet as a possible solution to resolving existing camera failures in April 2019. Clearly an industry leader of a viable and reliable solution, Mobile View cameras were installed on Transit's three newest buses as part of the procurement process of the vehicles in 2020. City staff is presenting an item to City Council for the approval to procure and install Mobile View Safe Fleet camera systems on the remaining 18 transit vehicles.

Budget: \$110,000

Funding Source: RCTC and LCTOP

Paratransit Software (T-09)

Paratransit scheduling software, TripMaster, was purchased in November 2021 and is currently in use. Transit uses this program to facilitate reservations for the City's Dial-a-Ride program. This software allows City staff to have a cloud-based reservation process. The remaining funds from the completed project will be reallocated to another project during the SRTP process for FY2023 and will be subsequently updated in the capital improvement project (CIP).

Remaining Budget: \$1,590 Funding Source: RCTC

Mobile Lifts (T-10)

The vehicle maintenance division requires automatic lifts that will facilitate large and small vehicles. Bus lifts are being explored by City staff to be installed at the current vehicle maintenance facility. Installation of the new lifts will require replacing and upgrading the slab. Once the slab has been prepared City staff will initiate the procurement process for the lifts.

Remaining Budget: \$60,000 Funding Source: RCTC

Fiscal Impact:

The cost associated with preparing this staff report is \$645.

Recommended Action:

Receive and file the Transit Capital Improvement update.



Staff Report

TO: City Council

FROM: Pedro Rico, Chief Building Official

DATE February 1, 2022

SUBJECT: Update of the Department of Building and Safety

Background and Analysis:

Building Permits

In the last four years, the Building and Safety Department has issued the following number of building permits:

2018: 2,704 permits, 2019: 2,229 permits, 2020: 1,555 permits, and 2021: 2,148 permits.

The permit totals shown for 2020 and 2021 do not include all of the residential solar photovoltaic (PV) permits that in prior years were issued separately for each tract home. For example, the number of permits for 2021 would have an additional 437 PV permits for the new tract homes. In 2020, homebuilders were requested to submit their master plans for the required 2019 Code updates to include the design of PVs and to have the PV included in each permit issued for each home. Now, each building permit of a new home includes the additional fees of its PV system and includes in the description the size of its PV system. This request was made to streamline the plan review, permitting, and inspection process.

Plan Reviews

In prior years, 100% of all plan submittals were sent out to the plan check services consultants. Now, most of the plan review is done in-house. Plan check services consultants are only used when City staff will not be able to turn around permits within 10 business days.

	<u>2020</u>	<u>2021</u>
Plan check services consultants	219	96
In-house	884	1,451

Inspections

To prevent the spread of the COVID-19 virus, most of the inspections in 2020 were conducted remotely through video conferencing with the use of smartphones or tablets. Virtual inspections take longer than in-person inspections, but the inspectors were able to do 9,685 inspections in 2020 without any missed or rolled over for another day.

Since 2021, inspections have been conducted virtually in occupied spaces to continue preventing the spread of the virus. Most of the inspections are now in-person since most projects are new construction and outdoors in existing construction. In total 15,657 inspections were completed in 2021.

Streamlining the Process

The City has launched the initial phase of the Citizen Self Service (CSS) portal to accept building permit applications, submittals of electronic construction drawings, and to accept payments. Once the CSS portal is fully implemented with all of its features, the Department of Building and Safety will be able to process more permits in less time, while maintaining the safety standards. It will allow the public to request building inspections, accept all types of building permit applications, and notify applicants of plan check status, permit issuance status, and building inspections.

Residential PV systems are now common and consistent on new homes, and on existing homes. There were 396 PV plan checks in 2020 and 674 in 2021.

To streamline the plan review and permitting process of residential PV systems, City staff has recently implemented the use of SolarAPP+. The software runs compliance plan checks and processes building permit approvals. After the automated review and approval of the PV design, it automatically produces a certified inspection checklist that the inspectors use in the field. For now, the software is limited to residential PV, roof-only systems with the exclusion of battery energy storage systems and main panel upgrades.

SolarAPP+ is provided to the City at no cost. The software was developed with grant funding from the Department of Energy (DOE) and in collaboration with the National Renewable Energy Laboratory (NREL), Underwriters Laboratory (UL), International Code Council (ICC), International Association of Electrical Inspectors (IAEI), National Fire Protection Association (NFPA), other associations, and different cities and counties.

SolarAPP+ will soon be able to review and approve designs and permits for residential PV systems combined with battery energy storage, main panel upgrades, reroof, electric vehicle charging stations, and roofing integrated PV products.

Code Update

The national model codes are updated every three years. The 2022 California Building Standards Code has been approved by California State Agencies and by the California Building Standards Commission (CBSC). These updates will be published and available on July 1, 2022. The City of Beaumont will be adopting updated codes by the end of 2022, to be effective January 1, 2023.

Fiscal Impact:

City staff estimates the cost to prepare this report to be \$780.

Recommended Action:

Receive and file.



Staff Report

TO: City Council
FROM: Laurie Miller, Administrative Services Manager
DATE February 1, 2022
SUBJECT: City Hall Renovation Update

Background and Analysis:

City Hall (CF104)

The City Hall Renovation Project is in the design phase with SGH Architects (SGH). The conceptual floor plan for the east end of the building has been approved and is designed to increase the operational functionality. The new design will include a variety of offices, multiple cubicles, conference rooms, wellness room, and centrally located customer service. Plans are currently under review and the anticipated notice of bid requests for the project is April 2022, with an estimated award date of June 2022.

City Roofing (ISFB-01)

Site inspections conducted with SGH and a roofing manufacturer have been completed to determine the existing conditions of the roof and define the scope of work. Plans are now under review and the anticipated date to request bids is April 2022 with an estimated contract award date of June 2022.

City Hall Fire System Upgrades (ISFB-02)

SGH has engaged fire protection consultants and is currently working with the engineer to finalize design plans. These plans will be part of the bid package anticipated for April 2022 with an estimated award date of June 2022.

City Hall Bathrooms (ISFB-03)

Renovation of the bathrooms on the east end of the building is included in the design scope and will be part of the bid package anticipated for April 2022 with an estimated award date of June 2022.

City Hall HVAC (ISFB-04)

SGH is currently working with a mechanical engineer to finalize plans to be included in the bid package anticipated for April 2022 with an estimated award date of June 2022.

Window Replacement (ISFB-09)

Window replacement for Building B will be a stand-alone project with an anticipated date to request bids in March 2022 and estimated award date of May 2022.

Fiscal Impact:

The costs associated with preparing this staff report is \$350.

Recommended Action:

Receive and file the Capital Improvement City Hall Update.



Staff Report

TO:	City Council
FROM:	Thaxton Van Belle, General Manager of Utilities
DATE	February 1, 2022
SUBJECT:	Collections System CIP Project Update

Background and Analysis:

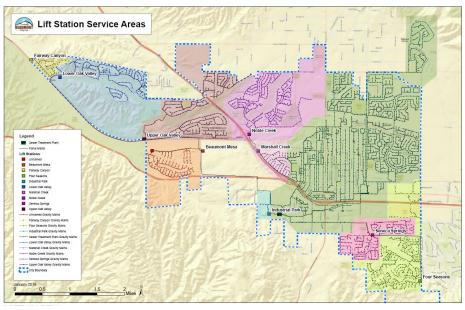
During the FY2020 budget process, City Council appropriated funds in the five-year capital Improvement project list for a Wastewater Master Plan (WWMP), improvements to the lift station programmable logic controllers (PLCs) and communications systems, and inflow and infiltration management.

Wastewater Master Plan (WWMP)

A WWMP provides a capacity adequacy assessment of the City's sewer collection system to meet the level of service required by existing customers and to accommodate future growth. The WWMP is a technical planning and budgetary document which establishes the infrastructure needs of the community over time and quantifies costs and financial requirements associated with those needs. City Council was presented with a draft document in a July 2020 workshop. The report has been finalized and is now ready for presentation to the City Council for consideration.

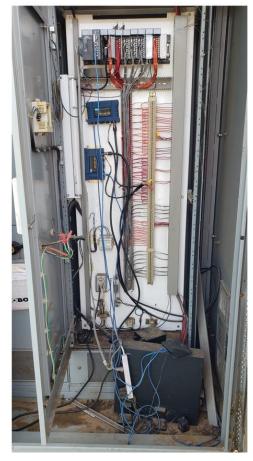
PLC Project

To date, PLC upgrades have been completed at the following lift stations: Four Seasons, Seneca Springs, Fairway Canyon, Lower Oak Valley, Mesa, Marshall Creek, Noble Creek, and Cooper's Creek. The remaining lift station, Upper Oak Valley, is next in the queue. After all lift station PLCs are completed, new cellular-based communication systems will have been installed along with modern radios as a backup system.



Lift Station Service Areas

Marshall Creek PLC BEFORE



Marshall Creek PLC AFTER



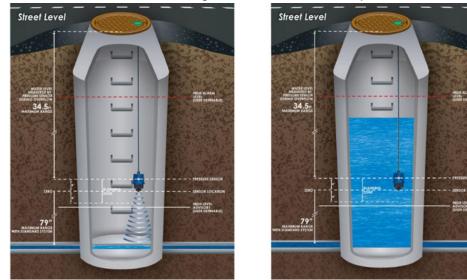
Inflow and Infiltration

Monitoring manhole covers are being deployed in the collection system that utilize ultrasonic technology to measure the liquid depth of the sewer and report the level via satellite to a computer or mobile device. For the initial rollout, eight locations were selected that represent the main gravity trunks which flow back to the plant in addition to areas previously identified as hotspots. To date, four of the eight covers have been installed, with the remaining four installations to resume upon completion of the PLC project. Furthermore, flow meter replacements at the lift stations are under consideration as part of the inflow and infiltration management.



Influent Flow Graph Demonstrating Inflow and Infiltration

Monitoring Manhole Cover Setup



Mesa Lift Station and Force Main RFP

The Mesa Lift Station functions as a regional lift station that conveys flows from five other lift stations. The previously referenced WWMP identified some immediate needs in the collections system, including deficiencies at the Mesa Lift Station. An RFP was issued in November 2021 for engineering services related to lift station improvements as well as the completion of a 16" force main parallel to the existing 12" line. Interviews with the top scoring respondents took place during the last week of January and a contract for design is anticipated to go before City Council on March 1, 2022.

Resmont Mesa Lift Station Ten Descent Mesa Lift Station Ten

Project Location and Proposed Alignment

Future Items

Rate study collaboration with the Beaumont Finance Department and a GIS-based collections system maintenance tracking software.

Fiscal Impact:

The cost associated with the preparation of this staff report is estimated to be \$400.

Recommended Action:

Receive and file the Collection System CIP Project Update.



Staff Report

TO: City Council

FROM: Thaxton Van Belle, General Manager of Utilities

DATE February 1, 2022

SUBJECT: First Amendment of an Agreement to Extend the Contract for Professional Services with Burrtec Waste Industries, Inc., to Provide Sludge Hauling Services for the Wastewater Treatment Plant

Background and Analysis:

The City issued a request for proposals (RFP) on January 28, 2019, to interested qualified firms to provide sludge hauling services for the City's Wastewater Treatment Plant (WWTP). Burrtec Waste Industries, Inc. (Burrtec) was selected to provide sludge hauling services for the WWTP for a three-year contract with the option to extend for two additional one-year periods, paid at the rate of \$56.60 per ton of sludge which escalates by 3% every July 1. This contract was executed on May 1, 2019 (Attachment A).

In March 2020 both parties entered into a letter agreement whereby Burrtec agreed to suspend the automatic 3% cost escalator until January 31, 2021 (Attachment B). This letter agreement delayed the implementation of the escalator due to the first wave of COVID-19 and the unknowns both parties faced.

The initial three-year contract period is coming to an end and City staff evaluated and explored the option of extending the current contract with Burrtec for sludge hauling services for the first of two possible one-year extensions under the original agreement. Extension of a contract beyond the initial period is allowed with a four-fifths vote of the City Council per Beaumont Municipal Code Section 3.02.070. Burrtec provided a "Request for Extension Letter" (Attachment C), to extend the term of the agreement with the agreeance that the escalator shall remain the same. Burrtec has performed well, and City staff is recommending this extension.

Fiscal Impact:

The fiscal impact for sludge hauling services for the WWTP is an increase of 3% from \$60.08/ton to \$61.88/ton beginning July 1, 2022, from account 700-4050-7068-0000. The cost to prepare this report is estimated to be \$1,200.

Recommended Action:

Approve the first amendment of an agreement to extend the existing contract for professional services with Burrtec Waste Industries, Inc., to provide sludge hauling services for the WWTP through April 30, 2023.

Attachments:

- A. Original Agreement for Professional Services by Independent Contractor
- B. Letter of Agreement for Professional Services and Waiver of Rate Escalator Provision
- C. Burrtec Waste Inc. Request for Extension Letter
- D. First Amendment Agreement for Extension of Professional Services

AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR

THIS AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR ("Agreement") is made and effective as of the 1st day of May, 2019, by and between the CITY OF BEAUMONT, a municipal corporation and general law city organized and existing under California law, ("CITY") whose address is 550 E. 6th Street, Beaumont, California 92223 and Burrtec Waste Industries, Inc., a California corporation whose address is 9890 Cherry Avenue, Fontana, CA 92335 ("CONTRACTOR").

RECITALS

This Agreement is entered into on the basis of the following facts, understandings and intentions of the parties to this Agreement:

- A. CITY desires to engage CONTRACTOR to provide Non-Hazardous Sludge Hauling Services, as defined below, for the CITY owned and operated Wastewater Treatment Plant ("WWTP"); and
- B. CONTRACTOR has made a proposal ("Proposal") to the CITY to provide such professional services, which Proposal is attached hereto as Exhibit "A"; and
- C. CONTRACTOR agrees to provide such services pursuant to, and in accordance with, the terms and conditions of this Agreement, and represents and warrants to CITY that CONTRACTOR possesses the necessary skills, licenses, certifications, qualifications, personnel and equipment to provide such services.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing Recitals and mutual covenants contained herein, CITY and CONTRACTOR agree as follows:

1. <u>Term of Agreement</u>. This Agreement is effective as of May 1, 2019 "Effective Date" and shall continue until terminated or extended as provided for herein. Notwithstanding anything in this Agreement to the contrary, this Agreement shall automatically terminate three (3) calendar years after the Effective Date without any further notice or action by either party, unless mutually agreed upon by CITY's City Council and CONTRACTOR. The parties agree that CITY shall have the option, but not the obligation, to extend the term of this Agreement for two (2) additional extension periods of one (1) year each. CITY shall exercise its options to extend the initial or extended term by providing written notice to CONTRACTOR of the extension, which notice shall be deemed an effective amendment of the Agreement for that purpose.

2. <u>Services to be Performed</u>. CONTRACTOR agrees to provide Sludge Hauling Services for the Wastewater Treatment Plant ("Services") which include to following:

- CONTRACTOR must collect, pick-up, haul, transport, dispose of and/or compost or use for other beneficial purposes all (100% of) the CITY's Non-Hazardous sludge and biosolids processed at the WWTP.
- CONTRACTOR must dispose of and/or compost or use for other beneficial

purposes all sludge and biosolids at the Salton City Landfill, a California Class 3, Non-Hazardous Solid Waste Landfill.

- CONTRACTOR must provide all of the equipment, equipment maintenance, staffing and scheduling necessary for the above.
- CONTRACTOR must provide or secure all necessary access to and unloading and processing of sludge and biosolids at the Salton City Landfill.
- CONTRACTOR must ensure that sludge and biosolids collected, picked-up, hauled and transported by CONTRACTOR from CITY's WWTP receiver first priority and guaranteed capacity for disposal and/or compost or use for other beneficial purposes the term of this Agreement.
- CONTRRACTOR must provide all other materials, equipment, labor, and appurtenances necessary to provide the above service.
- CONTRACTOR shall be responsible for obtaining, at its sole cost, for itself and any of its subcontractors, any licenses, permits or approvals required from any governmental entity to provide the above services.
- CONTRACTOR and its subcontractors must comply with all California and federal laws, rules, regulations, and orders applicable to the collecting, hauling, transporting, disposal and/or composting or other beneficial use of sludge and biosolids processed at the WWTP and disposed of, composted or use for other beneficial purposes at the Salton City Landfill, including but not limited to the terms and conditions of CITY's NPDES permit.
- CONTRACTOR must provide one (1) staged trailer and one (1) spare yard truck for CITY to use at the WWTP.

All Services shall be performed in compliance with applicable California and federal, law, regulations and orders and in the manner and according to the timeframe set forth in the Agreement or by CITY's designee.

CONTRACTOR designates Tracy A. Sweeney, Chief Operating Officer/Vice President as CONTRACTOR'S professional responsible for overseeing the Services provided by CONTRACTOR.

3. <u>Associates and Subcontractors</u>. CONTRACTOR may, at CONTRACTOR's sole cost and expense, employ such competent and qualified independent associates, subcontractors and consultants as CONTRACTOR deems necessary to perform the Services; provided, however, that CONTRACTOR shall not subcontract any of the Services without the written consent of CITY.

4. <u>Compensation</u>.

4.01 CONTRACTOR shall be paid at the rate of \$56.60 per ton of sludge or biosolid which shall adjust annually, each July 1st, by a flat 3% escalator. Notwithstanding anything in this Agreement to the contrary, total annual fees and charges paid by CITY to CONTRACTOR under this Agreement shall not exceed four hundred eighty-six thousand seven hundred sixty dollars (\$486,760.00) per year of the Agreement, except in instances where the total tonnage of sludge or biosolids collected, picked-up, hauled, transported and disposed or composted from CITY's WWTP by CONTRACTOR exceeds 8,600 tons, in

which event CITY shall pay CONTRACTOR at a rate of \$56.60 per ton for each ton in excess of 8,600.

4.02 CONTRACTOR shall not be compensated for any Services rendered nor reimbursed for any expenses incurred in excess of those authorized unless approved in advance by the CITY, in writing.

4.03 CONTRACTOR shall submit to CITY, on or before the fifteenth (15th) of each month, itemized invoices for the Services rendered in the previous month. The CITY shall not be obligated to pay any invoice that is submitted more than sixty (60) days after the due date of such invoice. CITY shall have the right to review and audit all invoices prior to or after payment to CONTRACTOR.

4.04 If the work is satisfactorily completed, CITY shall pay such invoice within thirty (30) days of its receipt. Should CITY dispute any portion of any invoice, CITY shall pay the undisputed portion within the time stated above, and at the same time advise CONTRACTOR in writing of the disputed portion.

5. <u>Obligations of CONTRACTOR</u>.

5.01 CONTRACTOR agrees to perform all Services in accordance with the terms and conditions of this Agreement and applicable California and federal laws, rules, regulations and orders. In the event that the terms of the Proposal shall conflict with the terms of this Agreement, or contain additional terms other than the Services to be rendered and the price for the Services, the terms of this Agreement shall govern and said additional or conflicting terms shall be of no force or effect.

5.02 Except as otherwise agreed by the parties, CONTRACTOR will supply all personnel, materials and equipment required to perform the Services. CONTRACTOR shall provide its own offices, telephones, vehicles and computers and set its own work hours. CONTRACTOR will determine the method, details, and means of performing the Services under this Agreement.

5.03 CONTRACTOR shall keep CITY informed as to the progress of the Services by means of regular and frequent consultations. Additionally, when requested by CITY, CONTRACTOR shall prepare written status reports.

5.04 CONTRACTOR is responsible for paying, when due, all income and other taxes of CONTRACTOR, fees and withholding, including withholding state and federal taxes, social security, unemployment and worker's compensation, incurred as a result of the compensation received by CONTRACTOR under this Agreement. CONTRACTOR agrees to indemnify, defend and hold harmless CITY for any claims, costs, losses, fees, penalties, interest, or damages suffered by CITY resulting from CONTRACTOR's failure to comply with this provision.

5.05 In the event CONTRACTOR is required to prepare plans, drawings, specifications and/or estimates, the same shall be furnished in conformance with local, state and federal laws, rules and regulations.

5.06 CONTRACTOR represents that it possesses all required licenses necessary or applicable to the performance of Services under this Agreement and the Proposal and shall obtain and keep in full force and effect all permits and approvals required to perform the Services herein. In the event CITY is required to obtain an approval or permit from another governmental entity, CONTRACTOR shall provide all necessary supporting documents to be filed with such entity.

5.07 CONTRACTOR shall be solely responsible for obtaining Employment Eligibility Verification information from CONTRACTOR's employees, in compliance with the Immigration Reform and Control Act of 1986, Pub. L. 99-603 (8 U.S.C. 1324a), and shall ensure that CONTRACTOR's employees are eligible to work in the United States.

5.08 In the event that CONTRACTOR employs, contracts with, or otherwise utilizes any CalPers retirees in completing any of the Services performed hereunder, such instances shall be disclosed in advance to the CITY and shall be subject to the CITY's advance written approval.

5.09 Drug-free Workplace Certification. By signing this Agreement, the CONTRACTOR hereby certifies under penalty of perjury under the laws of the State of California that the CONTRACTOR will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code, Section 8350 et seq.) and will provide a drug-free workplace.

5.10 CONTRACTOR shall comply with all applicable local, state and federal laws, rules, regulations, entitlements and/or permits applicable to, or governing the Services authorized hereunder.

6. CONTRACTOR hereby agrees to be solely responsible for the health and safety of its employees and agents in performing the Services under this Agreement and shall comply with all laws applicable to worker safety including but not limited to Cal-OSHA. Therefore, throughout the duration of this Agreement, CONTRACTOR hereby covenants and agrees to maintain insurance in conformance with the requirements set forth below. If existing coverage does not meet the requirements set forth herein, CONTRACTOR agrees to amend, supplement or endorse the existing coverage to do so. CONTRACTOR shall provide the following types and amounts of insurance:

6.01 Commercial general liability insurance in an amount of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate; CONTRACTOR agrees to have its insurer endorse the general liability coverage required herein to include as additional insured's CITY, its officials, employees and agents. CONTRACTOR also agrees to require all contractors and subcontractors to provide the same coverage required under this Section 6.

6.02 Business Auto Coverage in an amount no less than \$1 million per accident. If CONTRACTOR or CONTRACTOR's employees will use personal autos in performance of the Services hereunder, CONTRACTOR shall provide evidence of personal auto liability coverage for each such person.

6.03 Workers' Compensation coverage for any of CONTRACTOR's employees that will be providing any Services hereunder. CONTRACTOR will have a state-approved policy form providing statutory benefits as required by California law. The provisions of any workers' compensation will not limit the obligations of CONTRACTOR under this Agreement. CONTRACTOR expressly agrees not to use any statutory immunity defenses under such laws with respect to CITY, its employees, officials and agents.

6.04 Optional Insurance Coverage. Choose and check one: Required __/Not Required _X_; Errors and omissions insurance in a minimum amount of \$2 million per occurrence to cover any negligent acts or omissions committed by CONTRACTOR, its employees and/or agents in the performance of any Services for CITY.

7. <u>General Conditions pertaining to Insurance Coverage</u>

7.01 No liability insurance coverage provided shall prohibit CONTRACTOR from waiving the right of subrogation prior to a loss. CONTRACTOR waives all rights of subrogation against CITY regardless of the applicability of insurance proceeds and shall require all contractors and subcontractors to do likewise.

7.02. Prior to beginning the Services under this Agreement, CONTRACTOR shall furnish CITY with certificates of insurance, endorsements, and upon request, complete copies of all policies, including complete copies of all endorsements. All copies of policies and endorsements shall show the signature of a person authorized by that insurer to bind coverage on its behalf.

7.03. All required policies shall be issued by a highly rated insurer with a minimum A.M. Best rating of "A:VII"). The insurer(s) shall be admitted and licensed to do business in California. The certificates of insurance hereunder shall state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits, except after thirty (30) days' prior written notice has been given to CITY.

7.04 Self-insurance does not comply with these insurance specifications. CONTRACTOR acknowledges and agrees that all insurance coverage required to be provided by CONTRACTOR or any subcontractor, shall apply first and on a primary, non-contributing basis in relation to any other insurance, indemnity or self-insurance available to CITY.

7.05 All coverage types and limits required are subject to approval, modification and additional requirements by CITY, as the need arises. CONTRACTOR shall not make any reductions in scope of coverage (e.g. elimination of contractual liability or reduction of discovery period) that may affect CITY's protection without CITY's prior written consent.

7.06 CONTRACTOR agrees to provide immediate notice to CITY of any claim or loss against CONTRACTOR or arising out of the Services performed under this Agreement. CITY assumes no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve CITY.

8. <u>Indemnification</u>.

8.01 CONTRACTOR and CITY agree that CITY, its employees, agents and officials should, to the extent permitted by law, be fully protected from any liability. loss, injury, damage, claim, lawsuit, cost, expense, attorneys' fees, litigation costs, defense costs, court costs or any other costs arising out of or in any way related to the performance of this Agreement by CONTRACTOR or any subcontractor or agent of either. Accordingly, the provisions of this indemnity are intended by the parties to be interpreted and construed to provide the fullest protection possible under the law to CITY. CONTRACTOR acknowledges that CITY would not enter into this Agreement in the absence of the commitment of CONTRACTOR to indemnify and protect CITY as set forth herein.

a. To the fullest extent permitted by law, CONTRACTOR shall defend, indemnify and hold harmless CITY, its employees, agents and officials, from any liability, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses, damages or costs of any kind, actual attorneys' fees incurred by CITY, court costs, interest, defense costs, including expert witness fees and any other costs or expenses of any kind whatsoever without restriction or limitation incurred in relation to, as a consequence of or arising out of or in any way attributable in whole or in part to the performance of this Agreement. CONTRACTOR's obligation to defend, indemnify and hold harmless shall include any and all claims, suits and proceedings in which CONTRACTOR (and/or CONTRACTOR's agents and/or employees) is alleged to be an employee of CITY. All obligations under this provision are to be paid by CONTRACTOR as they are incurred by CITY.

b. Without affecting the rights of CITY under any provision of this Agreement or this Section, CONTRACTOR shall not be required to indemnify and hold harmless CITY as set forth above for liability attributable errors and omissions t of CITY, provided such fault is determined by agreement between the parties or the findings of a court of competent jurisdiction.

c. Hazardous Substance Indemnity. City shall provide to CONTRACTOR quarterly chemical analytical reports prepared by a State of California Certified Laboratory, which at a minimum include shall CAM17 Metals analysis for TTLC and STLC when appropriate, verifying the sludge is nonhazardous. CONTRACTOR agrees to indemnity, defend (with counsel reasonably acceptable to CITY) protect and hold harmless CITY, its employees, agents, and officials, from and against any and all liability, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses, damages or costs of any kind, whether actual, alleged or threatened, actual attorneys' fees incurred by CITY, court costs, interest, defense costs, including expert witness fees and any other costs or expenses of any kind whatsoever without restriction or limitation incurred in relation to, as a consequence of or arising out of or in any way attributable actually, allegedly or impliedly, in whole or in part to any repair, cleanup, removal action or response action undertaken pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 42 USC Sections 9601 et seq., ("CERCLA"), applicable provisions of the California Health & Safety Code or other similar federal, state, or local law or regulation, with respect to sludge or biosolids collected, picked-up, hauled, transported, disposed, or composted from CITY's WWTD by CONTRACTOR. The foregoing indemnity is intended to operate as an agreement pursuant to Section 107(e) of CERCLA and Section 25364 of the California Health & Safety Code to defend, protect and hold harmless and indemnify CITY and its employees, agents and officials from all forms of liability under CERCLA, the Health & Safety Code or other similar federal, state or local law or regulation regarding same.

9. Additional Services, Changes and Deletions.

9.01 In the event CONTRACTOR performs additional or different services than those described herein without the prior written approval of the City Manager and/or City Council of CITY, CONTRACTOR shall not be compensated for such services. CONTRACTOR expressly waives any right to be compensated for services and materials not covered by the scope of this Agreement or authorized by the CITY in writing.

9.02 CONTRACTOR shall promptly advise the City Manager and Finance Director of CITY as soon as reasonably practicable upon gaining knowledge of a condition, event or accumulation of events which may affect the scope and/or cost of Services. All proposed changes, modifications, deletions and/or requests for additional services shall be reduced to writing for review and approval by the CITY and/or City Council.

10. Termination of Agreement.

10.01 Notwithstanding any other provision of this Agreement, CITY, at its sole option, may terminate this Agreement with or without cause, or for no cause, at any time by giving twenty (20) days' written notice to CONTRACTOR.

10.02 In the event of termination, the payment of monies due CONTRACTOR for undisputed Services performed prior to the effective date of such termination shall be paid within thirty (30) business days after receipt of an invoice as provided in this Agreement. Immediately upon termination, CONTRACTOR agrees to promptly provide and deliver to CITY all original documents, reports, studies, plans, specifications and the like which are in the possession or control of CONTRACTOR and pertain to CITY.

11. <u>Status of CONTRACTOR</u>.

11.01 CONTRACTOR shall perform the Services in CONTRACTOR's own way as an independent contractor, and in pursuit of CONTRACTOR's independent calling, and not as an employee of CITY. However, CONTRACTOR shall regularly confer with CITY's City Manager as provided for in this Agreement.

11.02 CONTRACTOR agrees that it is not entitled to the rights and benefits

afforded to CITY's employees, including disability or unemployment insurance, workers' compensation, retirement, CalPers, medical insurance, sick leave, or any other employment benefit. CONTRACTOR is responsible for providing, at its own expense, disability, unemployment, workers' compensation and other insurance, training, permits, and licenses for itself and its employees and subcontractors.

11.03 CONTRACTOR hereby specifically represents and warrants to CITY that it possesses the qualifications and skills necessary to perform the Services under this Agreement in a competent, professional manner, without the advice or direction of CITY and that the Services to be rendered pursuant to this Agreement shall be performed in accordance with the standards customarily applicable to an experienced and competent professional rendering the same or similar services in the same geographic area where the CITY is located. Further, CONTRACTOR represents and warrants that the individual signing this Agreement on behalf of CONTRACTOR has the full authority to bind CONTRACTOR to this Agreement.

12. Ownership of Documents; Audit.

12.01 All draft and final reports, plans, drawings, studies, maps, photographs, specifications, data, notes, manuals, warranties and all other documents of any kind or nature prepared, developed or obtained by CONTRACTOR in connection with the performance of Services performed for the CITY shall become the sole property of CITY, and CONTRACTOR shall promptly deliver all such materials to CITY upon request. At the CITY's reasonable discretion, CONTRACTOR may be permitted to retain original documents, and furnish reproductions to CITY upon request, at no cost to CITY.

12.02 Subject to applicable federal and state laws, rules and regulations, CITY shall hold all intellectual property rights to any materials developed pursuant to this Agreement. CONTRACTOR shall not such use data or documents for purposes other than the performance of this Agreement, nor shall CONTRACTOR release, reproduce, distribute, publish, adapt for future use or any other purposes, or otherwise use, any data or other materials first produced in the performance of this Agreement, nor authorize others to do so, without the prior written consent of CITY.

12.03 CONTRACTOR shall retain and maintain, for a period not less than four years following termination of this Agreement, all time records, accounting records and vouchers and all other records with respect to all matters concerning Services performed, compensation paid and expenses reimbursed. At any time during normal business hours and as often as CITY may deem necessary, CONTRACTOR shall make available to CITY's agents for examination all of such records and shall permit CITY's agents to audit, examine and reproduce such records.

13. <u>Miscellaneous Provisions</u>.

13.01 This Agreement, which includes all attached exhibits, supersedes any and all previous agreements, either oral or written, between the parties hereto with respect to the rendering of Services by CONTRACTOR for CITY and contains all of the covenants and agreements between the parties with respect to the rendering of such Services in any

manner whatsoever. Any modification of this Agreement will be effective only if it is in writing signed by both parties.

13.02 CONTRACTOR shall not assign or otherwise transfer any rights or interest in this Agreement without the prior written consent of CITY. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

13.03 CONTRACTOR shall timely file FPPC Form 700 Conflict of Interest Statements with CITY if required by California law and/or the CITY's conflict of interest policy.

13.04 If any legal action or proceeding, including an action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorneys' fees and costs, in addition to any other relief to which that party may be entitled.

13.05 This Agreement is made, entered into and shall be performed in the County of Riverside in the State of California and shall in all respects be interpreted, enforced and governed under the laws of the State of California.

13.06 CONTRACTOR covenants that neither it nor any officer or principal of its firm has any interest, nor shall they acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of their Services hereunder. CONTRACTOR further covenants that in the performance of this Agreement, no person having such interest shall be employed by it as an officer, employee, agent, or subcontractor.

13.07 CONTRACTOR has read and is aware of the provisions of Section 1090 et seq. and Section 87100 et seq. of the Government Code relating to conflicts of interest of public officers and employees. CONTRACTOR agrees that they are unaware of any financial or economic interest of any public officer or employee of the CITY relating to this Agreement. It is further understood and agreed that if such a financial interest does exist at the inception of this Agreement, the CITY may immediately terminate this Agreement by giving notice thereof. CONTRACTOR shall comply with the requirements of Government Code section 87100 et seq. and section 1090 in the performance of and during the term of this Agreement.

13.08 Improper Consideration. CONTRACTOR shall not offer (either directly or through an intermediary) any improper consideration such as, but not limited to, cash, discounts, services, the provision of travel or entertainment, or any items of value to any officer, employee or agent of the CITY in an attempt to secure favorable treatment regarding this Agreement or any contract awarded by CITY. The CITY, by notice, may immediately terminate this Agreement if it determines that any improper consideration as described in the preceding sentence was offered to any officer, employee or agent of the CITY with respect to the proposal and award process of this Agreement or any CITY contract. This prohibition shall apply to any amendment, extension or evaluation process once this Agreement or any CITY contract has been awarded. CONTRACTOR shall

immediately report any attempt by any CITY officer, employee or agent to solicit (either directly or through an intermediary) improper consideration from CONTRACTOR.

IN WITNESS WHEREOF, the parties hereby have made and executed this Agreement to be effective as of the day and year first above-written.

CITY:

CONTRACTOR:

CITY OF BEAUMONT	
By:	Ву:
Julio Martinez, Mayor	Print Name:
	Title:

EXHIBIT "A"

PROPOSAL

Burrtec Waste Industries, Inc.,

On or about May 1, 2019, the City of Beaumont ("City") and Burrtec Waste Industries, Inc. ("Burrtec") (individually or collectively the "Party" or "Parties"), entered into an Agreement for Professional Services by Independent Contractor ("Agreement") for Non-Hazardous Sludge Hauling Services. Under Section 4 of the Agreement, the rate per ton of sludge hauled to be paid to Burrtec is to be adjusted annually, each July 1st, by a flat 3% escalator. However, the City and Burrtec agree, by this Letter Agreement, to suspend the 3% escalation and amend the Agreement.

In March 2020, the President of the United States declared a National Emergency due to the COVID-19 pandemic. Similarly, state and local emergencies were proclaimed by the Governor of California and the legislative bodies of Riverside County and the City. As a result of the pandemic, the declaration of state and local emergency, and the "stay at home" orders issued by state and local governments across California and the country, oil and fuel prices have been significantly impacted. The Parties agree that the automatic 3% increase called for under the Agreement is not warranted at this time, and that the increase shall not take effect on July 1, 2020, as provided for under the Agreement. The Parties agree that the rates in effect as of the date of this Letter Agreement shall remain in place and unchanged until January 31, 2021. By or before January 2, 2021, the Parties will begin to meet and confer in an effort to come to a mutual agreement regarding the reinstatement of the rate escalator or an amendment to the rate escalator provision set forth in the Agreement. In the event the Parties are unable to come to a mutual agreement by or before January 31, 2021, after negotiating in good faith in accordance with this Letter Agreement, either Party may terminate the Agreement effective 20 days after providing written notice to the other Party. During that 20 day period, the last rate agreed upon by the Parties shall remain in effect.

By executing this Letter Agreement below, Burrtec agrees that this Letter Agreement accurately represents the understanding and agreement of the Parties. Burrtec agrees to and expressly waives the rate escalator provision of Section 4 of the Agreement in accordance with the agreed terms set forth in this Letter Agreement. Further, in accordance with Section 13.01 of the Agreement, the parties agree to modify the Agreement to permit either Party to terminate the Agreement in accordance with terms set forth in this Letter Agreement.

The Parties agree that all other terms and provision of the Agreement shall remain in full force and effect.

CITY OF BEAUMONT

Todd Parton, City Manager

By executing this Letter Agreement, Burrtec agrees to the terms and provisions set forth herein. The individual executing this Letter Agreement warrants and represents that they have the authority to execute this Letter Agreement and bind Burrtec to the terms and provisions set forth herein.

BURRTEC WASTE INDUSTRIES, INC.

By: Title:

December 2, 2021



Ms. Sunshine Sanchez Management Analyst City of Beaumont 550 E. 6th Street

Re: BioSolids Management

Dear Ms. Sanchez:

Beaumont, CA 92223

As a follow up to our conversation last week, Burrtec Waste Industries, Inc., is pleased to provide this letter confirming our desire to extend the Agreement for Professional Services, to provide Non-Hazardous Sludge Hauling Services, dated May 1st, 2019 for the first of two potential one-year extensions.

As discussed, we agree to extending the existing Terms of the Agreement as follows:

- The Effective Date of the original Agreement shall remain May 1, 2019.
- The termination date of the first extension period shall be April 30, 2023.
- All other components of the Agreement including those outlined in Paragraph 2 -Services to be Performed, and Paragraph 4 – Compensation, shall remain the same.

If our terms for extension are agreeable to you, please provide written notice of the City's intent to exercise its option to extend the term of the contract as provided for in Paragraph 1 of the Agreement for Professional Services, dated May 1st, 2019.

We continue to appreciate the opportunity to serve the City of Beaumont.

Please call if you have any questions.

Sincerely,

David S Brischke

David S Brischke, P.E. Regional General Manager

FIRST AMENDMENT TO AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR (BURRTEC)

THIS FIRST AMENDMENT TO AGREEMENT OF SERVICES BY INDEPENDENT CONTRACTOR ("Amendment") is made and effective as of the 1st day of May 2022, by and between the CITY OF BEAUMONT ("City"), a general law city, and Burrtec Waste Industries, Inc., a California Corporation ("Contractor") in consideration of the mutual promises and purpose contained herein, the parties agree as follow:

RECITALS

This Amendment is made with respect to the following facts and purpose that the parties agree are true and correct:

- A. On May 1, 2019, the City and Contractor entered into that certain agreement entitled "Agreement for Professional Services by Independent Contractor" ("Agreement") for non-hazardous sludge hauling services.
- B. In June 2020, the parties entered into a letter agreement, whereby Contractor agreed to suspend the automatic three percent (3%) escalator in costs under the agreement until January 31, 2021.
- C. Contractor has provided a Letter of Extension dated December 2, 2021, a copy of which is attached hereto as Exhibit "A" and incorporate herein by this reference, to extend the term of the Agreement and to include Services to be Performed and Compensation to remain the same.

AMENDMENT

The Agreement is hereby amended as follows:

Section 1. <u>Term of Agreement</u>. In accordance with Section 1 of the Agreement, the parties agree to extend the term of the Agreement by one (1) year. Notwithstanding anything in this Agreement to the contrary, this Agreement shall automatically terminate April 30, 2023, unless earlier terminated by the parties in accordance with the Agreement, or extended by the parties with the approval of the City Council of the City.

Section 2. <u>Incorporation of Recitals; All Other Terms to Remain the Same</u>. The recitals to this Amendment are deemed incorporated herein by this reference. All other terms of the Agreement not expressly amended by this Amendment shall remain in full force and effect. In the event of a conflict between the Agreement and this Amendment, this Amendment shall control.

[Signatures on following page]

SIGNATURE PAGE TO FIRST AMENDMENT TO AGREEMENT FOR PROFESSIONAL SERVICES BY INDEPENDENT CONTRACTOR (BURRTEC)

CITY:

CITY OF BEAUMONT

CONTRACTOR:

BURRTEC WASTE INDUSTRIES, INC., a California corporation

By: _____

Ву:_____

Lloyd White, Mayor

Print Name: _____

Title: _____

ATTEST:

By: _____ Nicole Wheelwright, Deputy City Clerk

APPROVED AS TO FORM:

By: _____

John O. Pinkney, City Attorney



Staff Report

TO: City Council

FROM: Lloyd White, Mayor

DATE February 1, 2022

SUBJECT: Authorize Preliminary Discussions with the Beaumont – Cherry Valley Recreation & Park Improvement Corporation (Corporation) on a Collaborative Effort to Develop a Park Facility on 123 Acres on the North Side of Cherry Valley Boulevard and Formerly Known as the Danny Thomas Ranch

Background and Analysis:

On January 12, 2022, the Beaumont – Cherry Valley Recreation & Park Improvement Corporation (Corporation) sent a letter to the City of Beaumont (City) announcing its plans to develop a park on 123 acres of land donated to the Corporation (Attachment A). Said property is located on the north side of Cherry Valley Boulevard, approximately 1 mile east of IH-10, and has been formerly known as the Danny Thomas Ranch (DTR).

Corporation planning for the DTR site is in the early stages. They are now working to identify and prioritize potential improvements and programming for the future park. In its letter, the Corporation states that it might prove beneficial to engage with the City of Beaumont to explore possibilities that would maximize this resource to meet the objectives of both agencies.

Since planning for this project is still early in the process it is not possible to know with specificity how Beaumont might effectively contribute to the Corporation's efforts. Discussions are required to identify the needs of each agency and to determine how this project might be able to address those needs. An ad-hoc two-by-two committee is recommended to establish a needs analysis and to engage in detailed discussions to determine how Beaumont might effectively partner with the Corporation.

A draft memorandum of understanding (MOU) will be brought back to City Council for review at its February 15, 2022, meeting. Should the City Council ultimately partner with the Corporation, it is important to keep in mind that the Corporation will be the lead

agency and will own and manage the facility. It is equally important to keep in mind that if, and only when, the City and the Corporation agree to collaborate on the project that it must be annexed into the City.

Fiscal Impact:

City staff estimates it cost approximately \$340 to prepare this report.

Recommended Action:

It is recommended that the City Council:

- Agree to begin preliminary discussions with the Beaumont Cherry Valley Recreation and Park Improvement Corporation (Corporation) to explore how a future park facility at the Danny Thomas Ranch (DTR) site might mutually benefit both agencies,
- 2. Appoint two City Council members to a 2 by 2 committee to meet with representatives of the Corporation, and
- 3. Provide a report to the City Council when the City/District discussions have yielded tangible results.

Attachments:

A. Beaumont – Cherry Valley Recreation & Park Improvement Corporation – January 12, 2022



RECREATION & PARK IMPROVEMENT CORPORATION TAX ID # 33-0588531

January 12th, 2022

City of Beaumont Mayor Lloyd White 550 E 6th Street Beaumont CA 92223

Dear Mayor White

Happy New Year!

Last year the Beaumont-Cherry Valley Recreation and Park Improvement Corporation (The Foundation) received a significant donation of 123 acres of open space and ranch land, formerly known as the Danny Thomas Ranch. We believe this property will go a long way in helping us fulfill our mission of meeting the recreational needs of our growing community by providing residents with park facilities and recreational programs of outstanding quality. Due to some of the very unique features associated with this property we believe it would also be beneficial for the Foundation to engage in discussions with the City of Beaumont to explore possibilities that maximize the park and recreational benefits for our mutual constituencies. Ideally, following discussions, we would outline our shared vision in the form of a formal Memorandum of Understanding (MOU) for adoption by our respective bodies.

Please let us know your interest in discussions on this topic at your earliest convenience. We are very excited about the possibilities it provides. Wishing you all continued good health in the New Year.

Sincerely. Buyhn

Dan Hughes Chairman Beaumont-Cherry Valley Recreation and Park Improvement Corporation

Cc: Beaumont City Council Members City Manager Todd Parton

FOUNDATION BOARD MEMBERS:

DAN HUGHES, CHRIS DIERCKS, JOHN FLORES, DENISE WARD, CHRISTY VALDIVIA, & BOB TINKER

FOUNDATION MEMBERS:

JIM SMITH, DERREL THOMAS, NICK HUGHES



Staff Report

TO:	City Council
FROM:	Kari Mendoza, Administrative Services Director
DATE	February 1, 2022
SUBJECT:	Authorize Fifth Amendment to the City Manager Employment Agreement

Background and Analysis:

The City Council and City Manager engage in labor negotiations on an annual basis as it relates to the anniversary of the hire date with the City, October 31, 2016. The result of those negotiations is reflected in the attached fifth amendment to the City Manager employment agreement. Changes include an additional four hundred and fifty dollars per month into a deferred contribution account and the ability to convert up to 100 hours of vacation and or sick hours to cash, an increase of 20 hours.

Fiscal Impact:

Total impact to the reminder of the FY2023 budget is approximately \$2,250. City staff estimates the cost to prepare this report to be \$95.

Recommended Action:

Authorize the Mayor to execute the Fifth Amendment to the City Manager Employment Agreement.

Attachments:

A. Fifth Amendment to the City Manager Employment Agreement.

FIFTH AMENDMENT

<u>TO</u>

CITY MANAGER EMPLOYMENT AGREEMENT

This Fifth Amendment to the CITY MANAGER EMPLOYMENT AGREEMENT ("Employment Agreement") is made and entered into on February 1, 2022, by and between the City of Beaumont ("City") and City Manager Todd Parton ("Employee").

WHEREAS, the parties entered into the Employment Agreement on October 31, 2016; and

WHEREAS, the parties entered into a First Amendment to the Employment Agreement on November 7, 2017; and

WHEREAS, the parties entered into a Second Amendment to the Employment Agreement on January 15, 2019; and

WHEREAS, the parties entered into a Third Amendment to the Employment Agreement on November 5, 2019; and

WHEREAS, the parties entered into a Fourth Amendment to the Employment Agreement on October 6, 2020; and

WHEREAS, the Employment Agreement provides that the Employee will be evaluated annually; and

WHEREAS, the parties wish to amend the terms of the Employment Agreement and First, Second, Third, and Fourth Amendments as set forth herein.

NOW, THEREFORE, it is mutually agreed as follows:

A. The above recitals are incorporated herein by this reference.

B. Effective February 1, 2022, the monthly individual 457(b) deferred compensation account contribution provided for in Section 5.2 of the Employment Agreement shall be increased from \$1,800.00 to \$2,250.00.

C. Section 4.2 of the Employment Agreement shall be amended to read as follows:

4.2 <u>Vacation</u> Employee shall accrue twenty (20) days of vacation per year. Employee may convert a maximum of one hundred (100) hours of accrued vacation and or sick time to cash during the year 2022 and each year thereafter during which this Employment Agreement is in effect.

Other than as amended above, all other terms of the Employment Agreement and Amendments thereto shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Fifth Amendment to City Manager Employment Agreement as of the date and year first written above.

"CITY"

"EMPLOYEE"

CITY OF BEAUMONT

TODD PARTON

By:_____ Lloyd White, Mayor

By:_____

Todd Parton, City Manager

ATTEST:

By:_____

City Clerk

APPROVED AS TO FORM:

By:_____

John O. Pinkney, City Attorney



#ACITYELEVATED

DEPARTMENT PROJECTS SCHEDULE UPDATES December 2021

CITY CLERK



CITY CLERK'S OFFICE PROJECT SCHEDULE December 2021

Records Indexing ٠

- Records Indexing IN PROGRESS
 Laserfiche user-friendly clean up IN PROGRESS
 Electronic Scanning of all Permanent Records UPCOMING

Public Records Requests for the Month of December ٠

Requestor	No. of Requests	Date Received	Response Date	Response Update	Status	Staff Time Allocated
L. Emerick	1	Dec 1, 2021	Dec 2, 2021		Complete	.50 hr
C. Collins	1	Dec 2, 2021	Dec 2, 2021		Complete	1. hr
S. Ponec	1	Dec 7, 2021	Dec 22, 2021		Complete	.50 hr
S. Sparks	1	Dec 9, 2021	Dec 9, 2021		Complete	.50 hr
B. Mallavarapu	1	Dec 13, 2021	Dec 14, 2021		Complete	2 hrs
F. Trinidad	1	Dec 28, 2021	Jan 11, 2022		Complete	.50 hr
D. Steele	1	Dec 30, 2021	Jan 12, 2022		Complete	.50 hr

Public Records Requests for the Month

Extended Time Required Public Records Requests

Requestor	No. of Requests	Requested Documents	Date Received	Response Update	Status	Staff Time Allocated	Costs Associated
Monthly Tot	als						
No. of Reque	ests f	No. of Completed Requests Staff Time Allocated					
7	,	7		5.5 hrs			

COMMUNITY SERVICES_TRANSIT



Community Services-Transit December 2021

Recreation

Upcoming Events

- Veteran's Day Parade Nov. 11th /Beaumont Ave. to City Hall- Complete
- Senior Thanksgiving Outreach November 25th- Complete
 80 meals were made and delivered to senior/disabled home bound
- Letters to Santa- 416 letters received and we sent out the same amount.
- Holiday Light Parade Dec 11th- 25 entries, pictures with Santa & Mrs. Claus after the parade. Hot cocoa and cookies for everyone. It was cold but very well attended.
- Veterans Expo February/March 2022
- FSA Senior Lunch Indoor eating and/or Grab and Go
 - Hot meals now being served to seniors every Thursday can take weekly frozen meals home as well
- Mini Kickers Soccer Classes Starting in February 2022

<u>Ongoing Programs (In-person) – Chatigny Recreation Center</u>

- Chair Yoga CRC every Tuesday & Thursday
- Fit After 50 CRC Mon, Wed & Fridays
- BINGO CRC Fridays 10:30am-11:30am
- Senior Aerobics Mon, Wed & Fridays 9am
- Cookie decorating class 1-2 classes a month
- Pickleball: Mon, 11am-1pm & Tues, 8am-10am
- Open Basketball: Mon, 1:30pm-3:30pm & Wed, 1:30pm-3:30pm
- Parent and Me Ballet October, Mondays 4:30pm-5:15pm
- Introductory to Ballet October, Mondays 5:15pm-6pm
- Zumba class schedule pending Mon, Wed & Friday: 8:30am-9:15am

Parks

Nicklaus Park

• Gates at dog park scheduled to be replaced – In-Progress

Mt. View Park (Sundance)

o Additional trimming and preparation for Sundance Winter Festival

Stewart Park

- City Council directed staff to create RFP for Landscape Architect Services to design and develop plans for Stewart park renovation.
- Removed the Eucalyptus Trees at south side of Stewart Park
- Began grading for temporary parking at site of old pool building, irrigation and sod to follow.
- Reopened Park to public

Sports Park

- Walking path lighting repair ; Convert 40 HPS Lights to LED- In Progress
- Men's restrooms sink plumbing repair- Complete

DeForge Park

- CDF vegetation removal in channel- On hold pending CDF return
- Solid waste receptacles scheduled for replacement of lids-In Progress

Shadow Creek Park

- Irrigation major water lines repaired-In Progress
 - Main line at park to be repaired
- o 2 backflows need replacement- scheduled

Fallen Heroes Park

• Trimmed all bushes and trees around perimeter of park and walking path

Grounds Maintenance

Rights-of-Way

- Graffiti Removal Four (4) locations
- Cherry Channel (south) walking path irrigation replacement 95% completed
 Valve replacements
 - Prep new drip line in anticipation of new landscape install-On Hold new plants to be installed in March 2022.

Open Space and City Owned Lots

- Weed Abatement Program
 - Coordinating with CDF Seneca Springs open space on hold pending return of CDF
 - Marshall Creek Pending
 - Brookside and Fairway Dr 75% Complete

Building Maintenance

Fire Station 66

- Electrical Engineer hired to review plans and determine appropriate designwalk through completed, report and recommendation submitted to staff for review. Walk through completed and report to be sent to staff about recommendations for replacement and upgrade of electrical infrastructure.
- Plumbing repairs to restrooms

City Hall

- Paint and Stucco at City Hall Complete
- Paint Bldgs B & D Complete
- o Awning replacement on Bldg D-In Progress
- Landscape Replacement to begin February 2022

Police Department

- Enhance lighting in parking lot In-Progress
- Obtaining quotes for minor roof repair to modular building
- Electrical and Generator Upgrades In Progress

Chatigny Recreation Center

- New drywall in elevator mechanical room after water leak –Completed
- Flag box installation Scheduled

Transit

Operations

- EV Charging Station use:
 - December: 78 unique drivers, charging for 257 sessions
- December 4th- Stuff the Bus at Walmart
 - More than 2,100 pounds of food collected.
- Smog inspections required this year have been completed and report has been submitted to BAR
- New bus driver accepted position- start date is January 18th
- Participated in TDA Triannual audit with RCTC staff for fiscal years 2019-2021

Capital Improvement Plan Projects

<u>Stewart Park Project – 3.95M</u>

- City Council directed staff to pursue an RFP for contracting services that will include Landscape Architect and all required subcontract consultants to provide complete plan and cost estimate for completion of park.
 - o RFP In Progress and to be published December/January

Rangel Park Ballfield Lights, Electrical and Playground - \$500,000

- Splash Park cost analysis under way to see possibility of removing splash pad due to space confinements and cost savings.
- Landscape Architect retained for pre-construction plans
 - Initial design of ballfield and park received and in review

Playground Shade Covers Phase I - \$250,000

• Update from City Council to pursue fabric shad sails. RFP for multiple parks and playgrounds underway.

Compressed Natural Gas Fueling Station

- So Cal Gas meeting to discuss tariff agreement ongoing
- Application for new gas service Completed
- Presentation to Council coming soon

Grants

- Carl Moyer Program SCAQMD \$600,000
 - Application approved at January 15th meeting
 - Additional funds to be used for CNG station
- Prop 68 Per Capita Grant \$192,000
 - Approved by City Council to apply for funding to improve Three Rings Ranch Park
 - Design drawings received and will be presented to residents for review and input
 - Application submitted
- Circle 4 Tree Planting Grant
 - CaUFC (California Urban Forest Council) will provide the City approximately 70-100 15-gallon trees which will include stock and labor to ensure proper installation by volunteers and WCA, Inc (West Coast Arborist).

COMMUNITY DEVELOPMENT



COMMUNITY DEVELOPMENT UPDATE Ending December 2021

- Housing Element Update
 - AFFH and Draft HEU being prepared for resubmittal to State HCD for final review
 - Objective Design Standards are being prepared
 - Safety Element Update was approved by CalFire and is on the HEU website
- Ordinance Updates
 - Accessory Dwelling Unit Ordinance will follow the Housing Element Update to comply with State law
 - Food Truck standards being prepared to present to Council
 - Design Guidelines/Standards being prepare for presentation to Council
- MSHCP Western Riverside County Multiple Species Habitat Conservation Plan
 Revisions to MSHCP handbook set to be reviewed by board in February
- Planning Commission
 - o Planning Commission was held on January 11, 2022
 - The next Planning Commission meeting will be February 8, 2021.
- Grants
 - Staff is preparing the third reimbursement request for LEAP funds and second reimbursement for SB2 grant.
- Code Enforcement
 - 34 open cases as of 11/30/21
 - o 27 Inspections resulting in no cases opened during the month of November
 - Closed 9 cases in October
- Building and Safety Department Data for year end
 - o <u>http://www.ci.beaumont.ca.us/DocumentCenter/View/2428</u>
- Fire Inspection
 - o 62 Plan Checks
 - 22 Planning Case Reviews
 - 139 Construction Inspections
 - 3 State Mandated Inspections
 - o 3 Non-State Mandated Inspections
 - 1 Special Event Inspection
- Planning Project Data for November
 - DRC Reviewed 23 applications in December (only 3 meetings due to holidays)
 - o 28 new Planning applications were received in the month of December



Project Status Report

Project Number	Date Submitted	Applicant	Project Location	Project Description	Project Status	Anticipated PC Hearing Date	Anticipated CC Hearing Date
ENV2021-0017, PLAN2021- 0656, PM2021- 0009, PP2021- 0388-0391, SP2021-0005	08/20/2021	Exeter	North side of Brookside Avenue, South side of Cherry Avenue, East of I-10 at 37101 and 37251 Cherry Valley Blvd.	Summit Station Specific Plan Amendment from residential to commercial, industrial and open space on 188 acres formerly known as the SunnyCal Specific Plan	In review, Scoping Meeting held 10/7/21	2022	2022
SP2019-0003, PLAN2019- 0283, PLAN2019- 0284, ENV2019- 0008	04/08/2019	JRT BP 1LLC	West of Jack Rabbit Trail, south of SR-60	Annexation, Specific Plan, GPA, EIR for development of 622 acres	Screen check Draft EIR in process, SP review in process	2022	2022
ENV2019-0009	07/18/2019	ASM Beaumont Potrero Logistics	s/o SR 60 e/o Hidden Canyon just west of Potrero	Industrial development ~500K sf, would require annexation for small piece of land & entitlement process (ASM)	Screen check EIR in review	March 2022	AprilMay 2022
CUP2109- 0033&34 PP2019-0209	06/03/2019	Jaswindier Singh Sondh	NWC Pennsylvania Ave & I-10	Proposed gas station, C-market with alcohol sales, quick service restaurant and car wash	Staff review of proposed revisions, CEQA review, CalTrans Issues	NA	NA
PP2019-0222 PM2019-0006 CUP2019-0037 & 38	07/30/2019	Ari Miller, Santiago Holdings	NWC Beaumont Ave & Oak Valley Pkwy	Retail center w/possible grocery anchor, drive-thru restaurants, retail & gas station	Project revisions underway	NA	NA
TTM 328500		Mo Behzad & Hamid Roknian	s/o Potrero e/o Manzanita Park Rd	~ 95 lot SFR subdivision	Staff review of plans, applicant revisions, environmental constraints being addressed	NA	NA



				INACTIVE PROJECTS			
CUP2020-0045	03/27/2020	Ramona's Mexican Restaurant	Ramona's Mexican Restaurant	Ramona's Custom Brews	Comments sent to applicant, pending revisions, On Hold per applicants request	Inactive	NA
CUP2020-0052	08/04/2020	Carrie Long	60 S. Palm	Pet Resort (Kennels & related facilities)	pending WQMP submittal	On Hold	NA
CUP2017-0001	05/24/2017	Colorado River Mobile Homes, LLC	36805 Brookside Ave.	Brookside RV Storage	Continued at applicants request	Continued indefinitely per applicants request	NA
CUP2021-0058		Hemet Valley Monuments	506 Wellwood	Hemet Valley Monuments	Continued indefinitely per applicants request	On Hold	NA

Filing Pending

Location	Description
Walmart Fuel	Addition of gas station at Walmart
Beaumont Crossroads II Sign Program	Signs for Hidden Canyon projects
Oak Valley Parkway & Golf Club Drive	Restaurants & Retail Center
Starbucks Sign Program	4 th Street
84 Lumber Expansion	
Dr. Bearie Medical Center	SWC OVP/Beaumont Ave.
Olivewood Commercial Develoment	n/o SR 60 w/o Potrero
Xenia Ave. Apartments	e/s Xenia n/o 6 th Street
Winter Pine Care Facility	E/o Palm Ave on the n/s of Winter Pine



Dog Boarding Facility	
TTM33277	
Beaumont Market Place (SPA & TPM)	NWC 2 nd Street and Highland Springs
Liquor License	633 Highland Springs
Richmond American Homes	
Tentative Tract Map SFR	11 th and Michigan

INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGY December 2021

Tyler Upgrades – IN PROGRESS

- New Payroll Software Completed
- Accounts Payable Module in Incode In Progress
- Business License software module research. On hold
- Civic Engagement software (EAM) demo to replace PMM. On hold
- SolarAPP+ Running proof of concept with Tesla In Progress
- PMM Add Illegal Activity request type In Progress (TylerTech working on issue)

City Hall – IN PROGRESS

- New upgrades to data center being presented to Council.
- PC Deployment in progress.
- Remodel and moves in place. Completed
- New phone upgrade in place. Completed
- o 2 Code vehicle being retrofitted with tough books. Progress

Police Department – IN PROGRESS

- \circ Will have analytics to provide for staff for better information of service needs.
- Retrofit a few new vehicles with Toughbook's and cradle points. On going
- Upgrades to Data Center at PD being presented to Council.
- o New RIPA AND DOJ Compliance modules being tested Completed
- Mark43 and DOJ project still in place.
- PC Deployment in Progress Completed
- New camera installation at PD Annex In progress
- Netmotion Implementation In Progress

CAD\RMS System for Public Safety (PD)- IN PROGRESS

- New Internet line for Riv Co installed
- NG911 DOJ on schedule
- Additional vehicle retrofit with CAD access in progress.
- Vehicle Location Service Resolved GPS issue Testing Units AVL
- Netmotion Project in Progress

California Yard – In Progress

- Circuit installation In progress
- Fortinet Firewall and Switch installation In Progress
- PC Deployment In Progress

Wastewater Plant -IN PROGRESS

- Phase 1 & 2 of networking at WWTP completed.
- PIP Installation Beginning Process
- New Internet Upgrade and phones system Install ETA Nov 1. Completed
- New redundancy IT measures being explored. In Progress
- New Frontier SD-Wan Cut Over In Progress (Resolving network issues)



Albert Chatigny Community Center AC Controls

- Testing new AC controls with Directive from Parks & Rec.
- New Rec Software and membership scanner test. Completed
- UPS Installation In Progress

IT Strategic Plan – IN PROGRESS

- Creating an IT strategic plan for City Manager.
- Looking at efficient ways to save city money on telco services.
- Identifying new GIS options
- Looking at options to bringing a third party for holistic assessment of security needs.
- Meeting to discuss budget and ongoing projects to align to Beaumont's vision.
- Review and mitigate IT policies
- Providing new security measure that coincides with CJIS compliance

FINANCE



FINANCE DEPARTMENT November 2021

SPECIAL PROJECTS

- Tyler software
 - Payroll/HR Module this project will consolidate payroll and HR within the primary City financial system. The City Council approved funding for this project at the December 15, 2020 meeting. This project will move forward with implementation contemplated by July or August 2021. Payroll Configuration started on 05/10/21. Payroll went live on August 27,2021.
 - Cost Allocation and Fee Study– need to update for both grant indirect rate purposes and for fee adjustments. Cost allocation RFP went out and Proposals are due by 10/29/21. Two potential vendors have been identified with presentations scheduled for the week of November 15th. Council approved on 12/07/21 to award the contract to RCS.
 - Exploring alternative solution to Business License software needs project is on hold
 - Tracking Accounts receivable through Tyler project is on hold

• City Audit – The City Auditors fieldwork was completed and a Final Annual Comprehensive report was issued on 01/12/22. We are scheduled with RAMS for the week of January 31st to begin the single audit.

• Transit Audit – The Transit Auditors, Eide Bailly, began fieldwork on 10/06/21 and have plans to finalize their report by the end of December.

• AP Automation – Project started in October and initial letters went out to vendors notifying them that Nvoicepay would be contacting them. 35% of vendors matched their system and are already set up. Nvoicepay plans to have the implementation complete by the middle of December. AP automation went live on Friday, December 3rd.

• FEMA grant – application submitted successfully by the City. Costs associated with responding to the Covid-19 emergency are being tracked and documented. The City has submitted several projects and expects to submit additional projects in the first quarter of calendar 2021. Initial funding decisions should occur in April 2021. Two claims have been approved, others are still in review. We received our first FEMA reimbursement on 09/02/21 for \$10,369.19 for PD overtime.

• CARE (COVID Relief Fund) – the City is eligible to receive up to \$635K in Federal Funding through the State. As of November 19, 2020, City has received all of these funds. Following the receipt of Federal funds, the City Council created a General Fund supported Covid Relief program in the same amount as the Federal funds received.

- Business Grant awards are complete and funds have been disbursed. The Council decided to move forward with a second round of funding. The second round of business grants was processed and payments issued on March 19, 2021.
- Household assistance applications have been received and payments have been issued to qualifying households.
- To date, approximately \$427K of these funds have been expended.

• Treasury's Coronavirus State and Local Fiscal Recovery Funds – The City is eligible to receive funds in the amount of \$7,306,318.00. The application for these funds has been submitted and the first tranche of funds was received on 6/7/2021. The second tranche will be released 365 after receiving the first tranche. Premium pay was authorized by City Council and was processed on 6/25/2021 in the amount of \$1,833,584.60. Council has earmarked \$400k of these funds for a WW CIP project.

• 2021-22 Overhead Allocation and Transfers -these are completed quarterly. First quarter transfers have been completed.

• Internal Service Funds – the CC approved the creation of 4 new internal service funds. This includes:

- Facility Maintenance/ Replacement Fund
- Vehicle Replacement Fund
- Equipment Replacement Fund
- IT Equipment Replacement Fund

These funds will be incorporated into the FY 2022 budget process with allocations to the funds from departments based on a utilization basis. First quarter contributions have been made.

- New processes and procedures
 - Investment policy/ Investment process the policy has been approved by City Council an investment advisor selected. The setup work is underway and an updated policy with recommendations from the investment advisor was approved by Council on 5/18/2021. The City wired \$15 million to the trustee for the portfolio managed by the advisors in December 2021. Results will be reported within the quarterly investment report and certification.
- Compliance with Developer Agreements
 - KHOV
 - Fee credits for prepaid Sewer Capacity DIF reconciled monthly (overpayment has been identified refund to developer completed)
 - Park fee credits reconciled monthly
 - All Bond proceeds available to KHOV for 2016-4 have been paid
 - Pardee
 - Park fee credits and prepaid DIF reconciled monthly.
 - IA 8F bonds issued and proceeds sent to Pardee.
 - Pardee was billed and has paid prepayment for FY 2021 after DIF and TUMF credits were included in the computations.
 - Pardee requested and was paid the Paygo funds from IA 8F
 - TriPointe has requested payment on 10/19/21 for IA 2019-1 bonds proceeds. The request is in the review process.
 - o RSI
 - Fee credits for prepaid Road and Bridge DIF completed

DR Horton

- Park Fee credits and DIF reconciled monthly
- Compliance with TUMF Credit Agreements
 - Pardee
 - Potrero Phase II
 - Pennsylvania Widening
 - Oak Valley Interchange

- o Lassen
 - 4th Street Extension (Grading)
- Crossroads
 - 4th Street Extension (Paving)
- Processing of CFD Prepayment Requests
 - Program restarted October 2017
 - Process "dark" from 6/1 through 9/30 for tax roll assessment processing
 - Received #21 requests to date (one received May 2021)
 - Received #20 full payoffs to date
 - Total \$346,695.87 for debt service
 - Total \$10,739.38 for future facilities
 - o All funds transferred to Trustee for retirement of bonds
 - Bonds retired to date = \$195,000
- Management of Existing Bonds
 - Special District Report for Beaumont Finance Authority Due 01/31/22
 - Special District Report for Beaumont Public Improvement Authority Due 1/31/22
 - Next Debt Service Payment Due 03-01-22
- Refunding Bond Issuance completed for IA 8C and IA 17B
- Refunding Bond Issuance completed for IA 7B, 7C, 17A, 19C and 20
- Bonds issued for CFD 2019-1
- SCO Filings Due for FY21 1/31/2022
 - Streets Report was filed on 11/23/21
 - Remaining reports Not yet filed
- AQMD FY21 filing February 2022
- File FY 2021-22 City Budget with the County of Riverside will file when budget book is complete
- CFD Assessments Costs (Parks/Maintenance/Administration)
 - Reporting CFD Revenues Generated by IA Recording in the general ledger as received from the County of Riverside
 - Segregation of funds: #250 Administration, #255 Maintenance, #260 Public Safety, #265 Facilities, #510 Pay-Go, #840 Bond Debt Service, #850 BFA, #855 BPIA
 - Demonstrate Means/Methods for CFD Fund Allocations Working on best way to identify/capture data:
 - Park Maintenance
 - Parkway Maintenance
 - Public Safety
 - Other

This project will be re-initiated and considered as part of the cost allocation project with approved vendor.

- IA 8F Bonds issued net proceeds approx. \$12.3 million sent to Pardee in compliance with settlement agreement and acquisition agreement. The vast majority is a return of DIF and TUMF fees.
- Pardee pay go reimbursement request filed for Area 2016-2 request of \$340,726 Completed
- Pension Liability Analysis and Options reviewed by CC at the March 3, 2020 meeting. The City Council allocated \$2.5 million in General Fund reserves to be used in addressing the pension liability. Council approved the establishment of PARS 115 trust and Council

will be presented with funding policy options as well as investment strategy for these funds.

• FY 22/23 Budget – Staff did a budget kick-off meeting with all staff in December and all departments are in the process of completing budget worksheets.

• Budget book development using new software in in process. Final book is planned to be completed by January 2022.

ONGOING WORK

Bank reconciliations (all banks and trustee accounts)

NOTE: Citibank Operating Account reconciled through 11/24/21

Payroll and Workers Comp Accts reconciled through 11/30/21

All other accounts reconciled through 11/30/21

All Trustee accounts reconciled through 11/30/21

Daily cash receipts data transfer into the general ledger

Weekly accounts payable processing

Timely recording of payroll and related entries

Review and reconciliation of all DIF monthly

Review, reporting of MSHCP and TUMF monthly

General ledger review and reclassifications as needed

Review of budget to actual activities

Monthly financial reporting to Finance Committee and City Council

Review and analysis of Project accounting monthly

- Review of project budgets to CIP
- Reconciliation of revenues recorded
- Reconciliation of expenses incurred with Public Works
- Reconciliation with general ledger entries

Development of Policies and Procedures (continuous)

Transparency

- General ledgers are redacted and uploaded
- Wilmington Trust statements are being held due to redaction issues-ONLY available to view over the counter
- Paid vendor invoices are scanned and uploaded to portal within reasonable time frame
- Bank statements and reconciliations uploaded through June 2021
- All Bond fund requisitions are redacted and uploaded

UPCOMING PROJECTS

Business license program management

Inventory management – project is on hold

Travel Policy – needs to be created

Further Automation of Accounts Payable and Accounts Receivable processing

A complete review of all financial policies will be undertaken during FY 2022 to determine missing elements and needed updates.

GRANTS

The Community Development Department took on the task of tracking all grants received by the City and coordinated with the Finance Department. A complete listing of existing Grants and projected Grants was provided to the Finance Committee and City Council in June 2020. This listing will be updated and maintained. City Council reviewed and approved the grant policy January 4th 2022.

ECONOMIC DEVELOPMENT



ECONOMIC DEVELOPMENT December 2021

RFPs Underway

Major Projects

Retail Market Analysis

- Work is underway with The Retail Coach
 - o Retail Market Analysis Complete
 - Promoting custom cell-phone analysis to all small businesses in the City
 - Site Profiles underway
 - Attraction is underway Recruitment Sprint #2
 - Drafting Opportunity Site Profiles
 - Prepping materials for regional ICSC conference in May 2022

Covid-19 Response

- Back to Business Committee
 - Business Survey
 - Resident Survey
 - Business Outreach
 - Stay updated with State Guidelines and Reopening plans
 - COVID-19 Complaint Business Package
 - Small Business Grant Program Round 2 funding has been distributed
- American Rescue Plan
 - o Provides direct funding to each City in two payments
 - Reviewing eligible uses for these funds.
 - Funds must be expended by 2024
 - Final Rule Document has been published
- Major Employer Discussions
 - ICON is seeing a huge increase in orders and shipping
 - Wolverine has leveled out
 - CJ Foods is in full production
 - Rudolf Foods is expanding its operations and is hiring 40 new employees
 - Priority Pallet is starting to recover
 - Amazon is happy with their location
 - All are experiencing Hiring and employee retention issues
- Business Resource Information is available on City website
 - Reopening plan guidance docs for each industry
 - o Disaster loans, Small business grants and Paycheck Protection Program links
 - Utility benefit info
 - Small business development assistance
 - Programs to help small business retool and adapt their business plan and strategy
- Revised sales tax projections and project absorption for FY21

- Expand modeling on sales and property taxes for impacts from COVID-19
- Update recession indicator model with new datasets
- Riverside County to unveil microbusiness loans of \$2,500 per business. Details and timing coming soon

Retail Recruitment Strategy

- Review of information and needs associated with establishment of the program
- Retail recruitment has changed, and the City's efforts must adapt to stay competitive
- Continue to review and come up with ideas on streamlining permit process
- Market Analysis completed
- Working to update Economic Development portion of the website to include data and info site selectors and corporate execs are looking for
- Developed Full-service Restaurant Demand report to be used for recruitment

Economic Development Strategic Plan

- Partnership established with UCR for business and entrepreneur development
- Potential partnership with CVEP for business development and resource seminars
 - Partnerships developed for datasets and review of statistics
 - UCR
 - Working on MSJC
- Targeted Industry Groups
 - Fulfillment centers, high-tech manufacturing, additive manufacturing, healthcare, renewable energy sources, logistics technology clusters
 - Hotels, entertainment outlets, sit-down restaurants, retail businesses
 - Market Analysis will kickstart this effort using new datasets and industry matching
- Monthly workforce training events held each month on 2nd Thursday (Next Date is January 13)
- Focus has shifted towards Retail recruitment and Marketing functions for 2021
- FY22 programs being developed now
 - Small Business and Large Employer Meetings held in October. These will be held quarterly or more frequent based on special circumstances.
- Working on new website content and design. Working to secure new URL for the website

Successor Agency Dissolution

- 52 Acre Property Transfer to the City for public use
 - Compensation Agreement among taxing entities complete
 - o Transfer to go for Countywide Oversight Board approval in March 2022

Downtown Campus/Facilities Master Plan Project

- Working to update based on newly adopted Downtown Plan
- Downtown kickoff has started with the Economic Development Committe

Sales Tax and Property Tax Review

- Review and analyze quarterly sales tax and annual property tax revenues
- Make suggestions and action plans on results
- Targeted sectors, business outliers and discrepancies
- Growth projections
- Incorporate this data into the multi-year fiscal model and annual budget

- Property tax dataset from years 2000-2018 completed
- Working through revenue models based on home sales and sales tax updates

Economic Fiscal Impact Model Review (part of General Plan Update)

- Review inputs and test model
- Run various test projects to determine calibration

Budget Modeling and Review

- Working to develop a robust and sound fiscal model based on a true data set that can be trusted
- The model will be able to project future revenues and growth projections to make better financial choices today
- Working on economic indicator review for downturn/recession planning opportunities
- Partnership with Claremont McKenna College Professor in Economics Dr. Keil
- Developing commercial /industrial absorption model with revenues
- Working on expense model per development type
- Recession indicator model
- New required revenues model under development, based on new fiscal forecast deficit in 2024
- Recession Indicator Model previously created being reviewed to track leading indicators

Coordination with Multiple Departments on Projects

- Work on current / future projects, capital projects, Capital Improvement Plan, Design Review Committee, review of Planning applications and projects
- Serve as city liaison for private industry for each city department

Economic Development Committee – Next meeting February 9, 2021

Grant Management

- Developing City Grant Policies and Procedures
 - Presenting Draft to Finance and Audit on December 20th
- Developing Grant tracking worksheet
- Departments reviewing funding opportunities

Foreign Trade Zone

- Working with City of Palm Springs or March JPA to potentially expand their zone to include Beaumont
- Develop strategy to work through US Customs to get the approval of alternative site framework application
- Working on next steps.
- A path forward has been determined but requires additional funding for a customs officer to cover the expanded zone area
- Working with Riverside County to identify possible funding sources
- Meeting on December 15th

Business Retention and Expansion Events

- Programming next series of events and training seminars for post pandemic
- Partnering with UCR, RivCo EDA and Coachella Valley Economic Partnership
- Contact small companies in need of assistance and resources

- Retraining Program
- Small Business and Large Employer Ambassador Meetings
 - Second round of meetings being scheduled for early 2022
- Next City Job Fair scheduled for February 16th, 2022.

Current Development Projects (building now)

Sundance Corp Center

- Building 1 and 2 almost completed
- Building 3 working on Tenant Improvements
- Working to fill remaining retail/in-line space

San Gorgonio Specific Plan

- Commercial property between 1st and 2nd streets from Kohls to Center Pointe (across from Walmart)
- Most attraction efforts are completed: A select few inline suites and one endcap are still available.
- Now Open: Flip Flop Shop and Share Tea
- Building under construction: Sherman Williams
- Now open are Grocery Outlet, In-N-Out, Raising Cane's, Five Below, Jersey Mikes, El Mariachi Mexican Take-Out, Bright Now Dental, Ulta Beauty, CinemaWest and AT&T Store
- Building is continuing and most tenants are still planning on opening this year, restrictions permitting.

Major Development Projects - Potential

Denley – Beaumont Village Specific Plan

- 300-acre specific plan with Commercial/Residential/ Mixed use project
- Between Oak Valley Parkway and SR 60, east of Potrero Blvd.
- Entire project is not included in BCVWD Urban Water Management Plan

Crossroads Logistics - Amazon

• Revised job numbers from Amazon is now 3,300 for this facility

Crossroads II Logistics (Hidden Canyon)

- McDonald Property Group is new owner
- Had multiple meetings with interested parties (developers and end users)
- Working to attract targeted industry groups per the EDSP
- Currently working on tenants for the 1 million sq. ft. building
- Have a lead on the second building as well

Commercial property at Oak Valley Parkway / Beaumont Avenue

- Working with landowner and broker to attract key tenants for the center
- Current leads are Farmer Boys, 7-Eleven with gas, drive-thru Starbucks

Commercial property at Oak Valley Parkway / Desert Lawn Drive

• Project submitted with new Gas Station and Drive Thru restaurant

Commercial property at Eighth Street / Highland Springs Avenue

- Small 1.5-acre site
- Recruitment completed
 - \circ 7-Eleven with gas
 - Dutch Bros Coffee

Other Project Leads

Miscellaneous leads for projects that I have worked on in the last 12 months. These range from simple phone calls to complete meetings with developers, architects and engineers.

- Commercial property at Oak Valley Parkway / I-10
- Commercial property at Oak Valley Parkway / Golf Club Drive
- Commercial property at Beaumont Avenue / 1st Street
- Commercial property at Pennsylvania / 6th Street
- Commercial property at Pennsylvania / 1st Street
- Commercial property at 6th Street and Xenia Avenue
- Residential property at 6th Street and Xenia Avenue

Other Items

- Hotel Incentive Package
- City Incentive Package/Policy
- Downtown Parking Ordinance
- Food Truck event analysis
- Top 10 Commercial Broker meeting program
- Development of Chamber of Commerce partnership
- US EDA Potrero PH2 Grant
- Food Truck Ordinance review
- Young Professional Networking Program
- Business of the month program with Chamber of Commerce has been created

PUBLIC INFORMATION

PUBLIC INFORMATION PROJECTS UPDATE December 2021

Communications Strategic Plan

- Update 2018 plan to include new goals and objectives
- Due: January

City/PD Style Guides

- Create new for PD
- Due: End of December
 - o Media Kit on website Wait on style guides

PD Email Distribution

• Sign up notification image to gain followers on news flash

Digital Magazine

- Launch first quarter 2022
- Pricing and options needed
- Canva to launch newsletter style program waiting on Beta

Digital Business Cards

• Sent options to Marcedes

City App

- Design/Function
- Submit information on departments and park facilities
- Finalize design & name
- Final product submitted to Tyler Tech
 - Waiting on Tyler Tech and the App stores

New downtown banners

- Missing one at 6th and Beaumont
- Faded and need new design
- Add to Second Street per 2021/22 Budget

Military Banner Corrections

- Improper placement and missing banners
- Submit to DekraLite for correction and replacement

CIP Book & Downtown Vision

- Kickoff meeting with consultant to discuss project
- Consultant provided outline/scope
- Developing a visual marketing piece which highlights CIP projects, streetscapes, placemaking, and city branding for the downtown area.

• Materials will be utilized to market the area to investors and developers

Economic Development

- Branding/Website Development
- Kyle providing detailed framework for website

Public Education

- Government 101
 - Timeline for the year and month
 - Start in early 2022
 - o **Districts**
 - Services
 - Committees/Commissions
- Planning Commission Spotlight
 - Planning/ED
 - Commercial site selection and development process flowchart to educate residents on new businesses coming to Beaumont
 - FAQ Page for website
- Public Works
 - Traffic Projects
 - Townhall Meetings
- Website Updating
 - Start with WWTP Use new photos
 - Update PD pages with comments

Budget planning

- Digital magazine
- State of the City
- Video and photo quotes
- Branding PD items
 - EZ up, Table cloth, Photo back drop and new stand, Symbol arts for new patch pins

Advertising/Misc. Outreach

- Social Media
 - Mayor Mondays
 - Meet with Lloyd about future engagement
 - Second week on January meeting
 - WM Will promote tree recycling
 - Small Business posted on Wednesdays IP
- Record Gazette Advertisements for upcoming events
 - Parade for next week
- Bus Shelter Advertisements
 - Doug submitted request generic info for now no ads

Misc. Projects

- Operation Santa map and street names list
- Letters to Santa Launched
 - November 29 December 17
 - Nice List certificated mailed out by Parks and Rec
- City wide Decorating Contest Launched
 - Online voting by photo only
 - Open December 1 December 12
 - Voting December 13 16
 - Winner announced and signs delivered December 20
- Update communications service request form to include list of services
- Christmas Parade
 - → All graphics complete
 - ↔ Social media schedules
 - ⊖ Parade maps updated
 - \circ Added cookies and cocoa to website

Local Events

- Stuff the Bus December 4
- Christmas Parade 12-11
- Shop with a Cop 12-11
- Operation Santa 12-11

Social Media Followers

What is the Difference Between Likes and Follows? ... A Like is a person who has chosen to attach their name to your Page as a fan. A follower is a person who has chosen to receive the updates that you post in their news feed (subject to the Facebook algorithm of course).

- Facebook
 - City Account –8,975 Followers (+117)
 - 6 individuals Direct Messaged (DM) us
 - Highest performing post in December: Beaumont's Holiday Light Parade reminder, posted 12/6
 - Reach: 23,914
 - Parks and Recreation 1,312 Followers (+25)
 - Highest performing post in December: Christmas Lights and Holiday Sights – North Pole Neighbor
 - Reach: 9,510
 - PD Account –12,902 Followers (+278)
 - Highest performing post in December: December 24, 2021, post showing the flooding/debris on Beaumont Avenue.
 - Reach: 31,906
- Twitter
 - City 2,659 Followers (+5)
 - PD 2,053 Followers (+87)

- Instagram
 - City 3,780 Followers (+75)
 - PD 7,908 Followers (+129)
- Nextdoor
 - City and PD 13,084 Members (+133)
 - 8,764 claimed households

Misc.

- eNewsletter/ News releases
 - 3,115 registered contacts (-3)
- Notification sign-ups
 - o calendar of events 895 (-9)
 - City Council 665 (-15)
 - EDC 222 (-4)
 - FAC 162 (+0)
 - Planning Commission 540 (-8)
 - Construction Updates 1198 (-13)
 - Homepage news 201 (+1)
 - PD Homepage News 33 (+4)

PUBLIC WORKS



PUBLIC WORKS UPDATE December, 2021

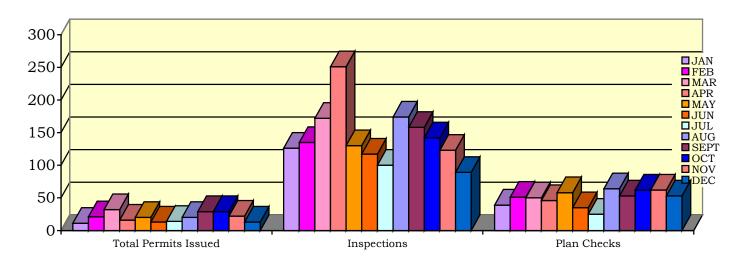
- Pavement Rehabilitation
 - City Council Approved contract with AAA paving on 09/07.
 - Contractor began with ADA ramp upgrades and local asphalt "dig-outs" prior to resurfacing streets.
 - Resurfacing local streets has commenced.
 - Remaining segment of Beaumont Ave. to rehabilitated week of 01-24 to 01-28.
 - Project expected to be complete in March pending weather.
- Sewer System Master Plan
 - Draft Master Plan provided to CC in January
 - o Capital Improvement Plan Development draft is complete.
 - Sewer system Draft Master Plan has been provided and is currently under staff review.
 - Staff intends to bring Master Plan to CC in February for adoption.
- Highland Springs Interchange
 - Cooperative Agreement Amendment with the City, RCTC, and Banning for the preparation of Project Approval and Environmental Document (PAED) for the Highland Springs Interchange Project approved by CC.
 - RCTC is the lead in preparing the report with input from both the City of Beaumont and Banning.
 - Funding for the Project Study Report (PSR) and PAED from WRCOG settlement.
 - PSR has been approved.
 - RFP for PAED phase has been released with bids due in February. Interviews to "short list" firms scheduled for February 24th.
- Potrero Phase 2
 - Staff looking at potential further phasing of interchange ramp construction. Potential modifications include revising proposed 6 ramp interchange (4 on-ramps & 2 off-ramps) to a 4-ramp interchange and delaying additional 2 on-ramps to future date in which traffic volumes warrant construction. PSA has been executed, the project has been kicked off.
 - Staff looking at other grant opportunities, potential funding solutions.
 - o Initial data collection and modeling has commenced.
 - Preliminary analysis shows support for the removal of the direct onramps though Caltrans has requested additional merge/diverge analysis of the proposed ramps. Anticipated completion of analysis in January. If supported by Caltrans staff will direct consultant to complete supplemental analysis and modify project drawings to reflect the change.

- Highland Springs Signal Timing ~ Complete/Monitoring
 - Timing has been implemented and is in effect. Staff will continue to monitor to assess operational compatibility.
- Pennsylvania Avenue Widening
 - CC adopted Mitigated Negative Declaration at 08/17 CC meeting.
 - Environmental consultant working with Resource Agencies (Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife) to obtain permits.
 - Bid package being prepared. Updated anticipated release within 2 weeks.
- Pennsylvania Avenue Railroad Grade Separation ~ No Change
 - Consultant directed to perform cost analysis for Riverside County Flood Control District master plan storm drain improvements as part of project. Staff able to get Flood Control to authorize up to \$5.3M in current budget.
 - Proposed design allows improvements to stay within Pennsylvania Ave., potentially avoiding significant environmental constraints associated with realigning outside City right-of-way. Feasibility is being confirmed.
 - \circ $\,$ Consultant is working on the 35% plans, specifications, and engineering.
 - Current contract has limited consultants' obligation to 35% design. Staff is searching for additional funding to engage consultant to complete design.
- Pennsylvania Avenue Interchange ~ No Change
 - Staff has had several meetings lately regarding traffic analysis and future compliance with Vehicle Miles Traveled (VMT) guidelines.
 - Caltrans will allow City to be lead agency for environmental clearance which should help facilitate project.
 - Staff has been able to obtain Caltrans concurrence regarding project study radius and intersection identification. City will not be required to include projects outside of our jurisdiction. Additionally, the recently completed traffic model runs for our General Plan can be utilized for study horizon year data saving time and cost of additional modeling.
 - Traffic Operations Analysis Report (TOAR) being revised to include recent General Plan traffic model runs.
 - Staff working with Fehr and Peers to provide quote for additional traffic analysis to support configuration as originally proposed.
- West Side Fire Station
 - Final plans approved.
 - Determination of Biologically Equivalent or Superior Preservation (DBESP) has been approved.
 - Initial Study/ Mitigated Negative Declaration is complete and out for public review.
 - Bid package has been prepared and project is out to bid.
- Line 2, Stage 1 Drainage Project
 - Cooperative funding agreement was approved by CC and the Riverside County Board of Supervisors
 - Professional Services Agreement awarded to EXP Consulting.

- Project has kicked off. Consultant initial step is to address any downstream limitations (Seneca wash) and identify potential mitigations.
 - Analysis has been identified and staff now working with consultant on preferred design approach.
- Staff working with Riverside County Flood Control to increase budget to allow for design and construction of detention basin to mitigate incremental stormwater runoff tributary to proposed storm drain line.
- Second Street Extension
 - Phase 1 of project complete which included
 - Preliminary design
 - Preliminary cost estimate
 - Preliminary environmental assessment
 - Phase II includes preparation of final engineering plans and specifications as well as CEQA compliance.
 - o 95% engineering plans submitted and reviewed.
 - Environmental studies and Initial Studies under way.
- By the Numbers ~ Running 12 month total of permits and inspections
 - Includes the following:
 - Encroachment permits issued.
 - Offsite improvement permits associated with residential developments issued.
 - Offsite improvement permits associated with commercial developments issued.
 - Commercial development inspections.
 - Residential development inspections.
 - Commercial development plan checks.
 - Residential development plan checks.



PUBLIC WORKS MONTHLY PERMIT INFORMATION RUNNING 12 MONTHS



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Permit Information												
Encroachment - Issued	7	21	24	11	18	13	13	19	22	27	21	10
Residential Improvements	3	0	8	5	2	0	0	0	3	2	1	2
Commercial Improvements	1	0	0	0	0	0	1	1	4	0	0	1
TOTAL	11	21	32	16	20	13	14	20	29	29	22	13
Inspections												
Commercial	48	31	40	50	48	42	13	52	51	55	89	26
Residential	78	104	132	201	82	75	87	122	107	87	34	63
TOTAL	126	135	172	251	130	142	100	174	158	142	123	89
Plan Checks												
Commercial	4	14	10	6	10	15	8	23	17	18	18	17
Residential	35	37	40	40	48	18	17	41	36	44	44	36
TOTAL	39	51	50	46	58	35	25	64	53	62	62	53



This information is gathered from monthly reports and inspection records. Permits issued as of December 31, 2021.