



CITY of BRISBANE

Joint City Council & Housing Authority Meeting Agenda

Thursday, November 19, 2020 at 7:30 PM • Virtual Meeting

This meeting is compliant with the Governors Executive Order N-29-20 issued on March 17, 2020 allowing for deviation of teleconference rules required by the Brown Act. The purpose of this is to provide the safest environment for staff, Councilmembers and the public while allowing for public participation. The public may address the council using exclusively remote public comment options.

The Council may take action on any item listed in the agenda.

PUBLIC MEETING VIDEOS

Members of the public may view the City Council Meeting by logging into the Zoom Meeting listed below. City Council Meetings can also be viewed live and/or on-demand via the City's YouTube Channel, www.youtube.com/brisbaneca, or on Comcast Channel 27. Archived videos can be replayed on the City's website, <http://brisbaneca.org/meetings>.

TO ADDRESS THE COUNCIL

The City Council Meeting will be an exclusively virtual meeting. The City Council agenda materials may be viewed online at www.brisbaneca.org at least 24 hours prior to a Special Meeting, and at least 72 hours prior to a Regular Meeting.

Remote Public Comments:

Meeting participants are encouraged to submit public comments in writing in advance of the meeting. Aside from commenting while in the Zoom meeting, the following email and text line will be also monitored during the meeting and public comments received will be read into the record during Oral Communications 1 and 2 or during an Item.

Email: ipadilla@brisbaneca.org

Text: 628-219-2922

Join Zoom Meeting:

<https://zoom.us/j/98908606940?pwd=K0d4cXNZR1dTTmdwUHFmcXU0WEI6Zz09>

Meeting ID: 989 0860 6940

Passcode: 123456

Call In Number: 1 (669) 900 9128

SPECIAL ASSISTANCE

If you need special assistance to participate in this meeting, please contact the City Clerk at (415) 508-2113. Notification in advance of the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

1. 7:30 P.M. CALL TO ORDER – PLEDGE OF ALLEGIANCE

2. ROLL CALL

3. ADOPTION OF AGENDA

4. PRESENTATION AND AWARDS

- A. Proclamation in Honor of Senator Jerry Hill
- B. Present Volunteer of the Year Awards
- C. Update from San Mateo County Vector Mosquito and Vector Control District

5. ORAL COMMUNICATIONS NO. 1

6. CONSENT CALENDAR

- D. Approve Minutes of Housing Authority Meeting of October 1, 2020
- E. Approve Minutes of City Council Meeting of October 1, 2020
- F. Approve Minutes of Joint City Council & Housing Authority Meeting of October 15, 2020
- G. Approve Resolution No. 2020-65 to Reappoint Carolyn Parker as City Representative to the Board of Trustees of the San Mateo County Mosquito and Vector Control District for a term through January 1, 2021 through December 31, 2024
- H. Approve Resolution No 2020-64, “Establishing a 15 MPH Speed Limit Adjacent to Public Schools During School Hours When Children Are Present.”
- I. Approve Response to Grand Jury Report “Ransomware: It is Not Enough To Think You Are Protected”

7. NEW BUSINESS

- J. Baylands Remediation Update and City Comments on Draft Feasibility Studies/Remedial Action Plans for Operable Unit San Mateo and Operable Unit 2
- K. Short Term Rental Ordinance Implementation and Enforcement
- L. Consider Approval of Ordinance No 658. to rescind Ordinance No. 656, an urgency ordinance that regulated short term rentals of residential properties in Brisbane

- M. Use of Housing Authority Funds to assist Low-Moderate Renters/Homeowners with Payments Due to COVID-19 Related Issues

(Council will consider allocating \$100,000 of Housing Authority Low Income Funds for the purpose of rental and mortgage assistance)

8. STAFF REPORTS

- N. City Manager's Report on upcoming activities

9. MAYOR/COUNCIL MATTERS

- O. Countywide Assignments and Subcommittee Reports
- P. City Council Meeting Schedule
- Q. Written Communications

10. ORAL COMMUNICATIONS NO. 2

11. ADJOURNMENT

D.

File Attachments for Item:

D. Approve Minutes of Housing Authority Meeting of October 1, 2020



City of Brisbane
HOUSING AUTHORITY

ACTION MINUTES

CITY OF BRISBANE HOUSING AUTHORITY

MEETING AGENDA

THURSDAY, OCTOBER 1, 2020

BRISBANE CITY HALL LARGE CONFERENCE ROOM, 50 PARK PLACE, BRISBANE

CALL TO ORDER 6:30 P.M.

- A. Approval of the Closed Session Agenda
- B. Public Comment. Members of the public may address the Councilmembers on any item on the closed session agenda.
- C. Adjournment into Closed Session
- D. Conference with Real Property Negotiator Executive Director Clay Holstine, pursuant to Government Code, section 54956.8, regarding terms and conditions of the potential purchase of 1 San Bruno Ave. Unit B

ADJOURNMENT

The meeting was called to order at 6:32 P.M. by Chair O'Connell. Authority Member Conway made a motion, seconded by Authority Member Cunningham, to approve the Housing Authority Meeting Agenda. The motion passes unanimously by all present.

Ayes: Authority Members Conway, Cunningham, Davis, Lentz and Chair O'Connell

Noes: None

Absent: None

No members of the public wished to make Public Comment. The members adjourned into Closed Session.

D.

HOUSING AUTHORITY CLOSED SESSION REPORT BACK

No action was taken at the closed session but direction was given to the Executive Director in regards to Items D. The meeting adjourned at 7:06 P.M.

Ingrid Padilla, Authority Clerk

DRAFT

E.

File Attachments for Item:

E. Approve Minutes of City Council Meeting of October 1, 2020



BRISBANE CITY COUNCIL
ACTION MINUTES

CITY OF BRISBANE CITY COUNCIL

MEETING AGENDA

THURSDAY, OCTOBER 1, 2020

VIRTUAL MEETING

CALL TO ORDER – PLEDGE OF ALLEGIANCE

Mayor O’Connell called the meeting to order at 7:45 p.m. and led the Pledge of Allegiance.

ROLL CALL

Councilmembers present: Councilmembers Conway, Cunningham, Davis, Lentz, and Mayor O’Connell

Councilmembers absent: None

Staff Present: City Manager Holstine, City Clerk Padilla, Interim City Attorney McMorrow, Director of Administrative Services Schillinger, City Engineer Breault, Community Development Director Swiecki, Fire Inspector Clyde Preston and Police Commander Garcia

ADOPTION OF AGENDA

CM Conway made a motion, seconded by CM Lentz, to adopt the agenda as it stands. Motion carried unanimously by all present.

Ayes: Councilmembers Conway, Cunningham, Davis, Lentz and Mayor O’Connell

Noes: None

Absent: None

Abstain: None

PRESENTATION AND AWARDS

A. County Elections Division Presentation on the November 3, 2020 Elections

Jim Irizarry, San Mateo County's assistant chief elections officer and assessor-county clerk recorder, presented the latest updates on the November 3, 2020 Elections including news on the COVID-19 safety measures the County will be implementing throughout Election season.

After a few council questions, Councilmembers thanked Mr. Irizarry for his presentation.

B. October is Fire Prevention Month

Mayor O'Connell read the proclamation announcing October is Fire Prevention Month. Fire Inspector Preston received the proclamation on behalf of North County Fire Authority.

ORAL COMMUNICATIONS NO. 1

Anja Miller asked for more information about High Speed Rail
Michele Salmon commented that the Council needs to know the background information about the McKesson Property
Jim O Shea commented that the Black Lives Matter flag should not be flown in the City
James Christie- asked about the possibility of a vacancy tax to protect small businesses in the City

CONSENT CALENDAR

- C. Approve Minutes of City Council Meeting of June 18, 2020**
- D. Approve Minutes of City Council Meeting of September 17, 2020**
- E. Approve Minutes of City Council Closed Session Meeting of September 17, 2020**
- F. Accept Investment Report as of August 2020**
- G. Adopt Resolution No. 2020-59 approving and re-certifying the City's 2020 Sewer System Management Plan (SSMP)**
- H. Acknowledge the School District Study Report and Receive a School District Study Update**

CM Lentz made a motion, seconded by CM Davis, to approved Consent Calendar Items C-H. The motion was carried unanimously by all present.

Ayes: Councilmembers Conway, Cunningham, Davis, Lentz and Mayor O'Connell
Noes: None
Absent: None
Abstain: None

PUBLIC HEARING

- Consider Introduction of Ordinance No. 653 amending Title 17 of the Brisbane Municipal Code to Regulate Accessory Dwelling Units and Junior Accessory Dwelling Units and Amending Title 15 of the Brisbane Municipal Code to Regulate Alterations and Additions to Existing Structures**

(Due to technological issues, the public hearing on this item was not opened at the City Council's meeting of September 17, 2020 and was continued to the City Council meeting of October 1, 2020)

Councilmember Conway left the virtual meeting and recused himself from the consideration of Public Hearing Item I.

Community Development Director reported that it is being recommended to introduce Ordinance No. 653 to achieve consistency with the new state law regulations throughout Title 17 to regulate accessory dwelling units and junior accessory dwelling units. The draft Ordinance also contains recommended amendments to Title 15 to regulate alternations and additions to existing structures.

After some Council questions, Mayor O'Connell opened the public hearing.

Michele Salmon texted CM Davis and asked how this item will affect the Baylands.

CM Cunningham made a motion, seconded by CM Lentz, to close the public hearing. Motion passes with a 4-0 vote with Councilmember Conway's recusing himself from the consideration of the item.

Ayes: Councilmembers Cunningham, Davis, Lentz and Mayor O'Connell

Noes: None

Absent: None

Abstain: None

Recused: Councilmember Conway

After some Council discussion, CM Cunningham made a motion, seconded by CM Lentz, introduce Ordinance No. 653 amending Title 17 of the Brisbane Municipal Code to regulate Accessory Dwelling Units and Junior Accessory Dwelling Units and Amending Title 15 of the Brisbane Municipal Code to Regulate Alterations and Additions to Existing Structures . The motion passed with a 4-0 vote with Councilmember Conway's recusing himself from the consideration of the item.

Ayes: Councilmembers Cunningham, Davis, Lentz and Mayor O'Connell

Noes: None

Absent: None

Abstain: None

Recused: Councilmember Conway

J. Consider Introduction of Ordinance No. 657 Brisbane amending sections 17.06.040, 17.08.040, and 17.10.040 of the Brisbane municipal code concerning the floor area ratio exemption for garages on small lots.

(Due to technological issues, the public hearing on this item was not opened at the City Council's meeting of September 17, 2020 and was continued to the City Council meeting of October 1, 2020)

Community Development Director Swiecki reported that the purpose of this item is to amend the Brisbane Municipal Code to increase the floor area ratio (FAR) exemption from 200 square feet to 400 square feet for garages on lots 3,700 square feet or smaller in size in the R-1, R-2 and R-3 residential zones.

After Council questions, Mayor O'Connell opened the public hearing.

Michele Salmon commented that the ordinance should be denied due to parking issues.

Michele Salmon spoke on behalf of Dolores Gomez, she commented that there is already no parking in the City and is against the introduction of the ordinance.

Michele Salmon commented that we should revisit this in a year.

Barbara Ebel and Prem Lall agreed with Ms. Salmon and were against the introduction of the Ordinance.

CM Conway made a motion, seconded by CM Davis, to close the public hearing. The motion is carried unanimously by all present.

Ayes: Councilmembers Conway, Cunningham, Davis, Lentz and Mayor O'Connell

Noes: None

Absent: None

Abstain: None

After some Council discussion, CM Cunningham made a motion to introduce Ordinance No. 657. The motion failed with a lack of a second.

CM Davis wanted staff to provide more information to the Council about how many properties this policy will impact.

K. Consider Adoption of Resolution No. 2020-56 Imposing Assessments on Certain Specially Benefitted Property Owners in Sierra Point for Developing, Implementing and Maintaining a Utility Structure Monitoring Program

(Due to technological issues, the public hearing on this item was not opened at the City Council's meeting of September 17, 2020 and was continued to the City Council meeting of October 1, 2020)

City Engineer Breault reported that the purpose of Resolution No. 2020-56 is to impose assessments on certain specially benefitted property owners in Sierra Point for developing, implementing, and maintaining a utility structure monitoring program rather than spreading the cost of the this program on all water customers of the City.

After one clarifying question, Mayor O’Connell opened the public hearing.

No members of the public wished to speak on this item.

CM Lentz made a motion, seconded by CM Davis, to close the public hearing. The motion is carried unanimously by all present.

Ayes: Councilmembers Conway, Cunningham, Davis, Lentz and Mayor O’Connell
Noes: None
Absent: None
Abstain: None

CM Davis made a motion, seconded by CM Conway, to adopt Resolution No. 2020-56 imposing assessments on certain specially benefitted property owners in Sierra Point for developing, implementing and maintaining a utility structure monitoring program. The motion is carried unanimously by all present.

Ayes: Councilmembers Conway, Cunningham, Davis, Lentz and Mayor O’Connell
Noes: None
Absent: None
Abstain: None

NEW BUSINESS

L. Consider Potential Sale of City Parcel APN 005-300-999 (formerly, S.P.R.R. SBE 872-41-23R)

(This item is for the purpose of providing full transparency on the context of a potential future sale of this City parcel. The terms and conditions of an actual sale of this City parcel, should it take place, would be on a future City Council agenda. Adoption of Resolution No. 2020-50 will declare that the City parcel is surplus land as defined in the Surplus Lands Act of the State of California.)

City Engineer Breault reported that is for the purpose of providing full transparency on the context of a potential future sale of this City parcel. The terms and conditions of an actual sale of this City parcel, should it take place, would be on a future City Council agenda. Adoption of Resolution No. 2020-50 will declare that the City parcel is surplus land as defined in the Surplus Lands Act of the State of California.

After council questions with staff, Dana Dillworth wrote that she opposed the this potential sale and declaring the parcel as surplus land and Michele Salmon commented that the Council should read the McKesson Agreement for background before making a decision.

After Council discussion and questions with staff, no action was taken. The item failed due to a lack of motion. Mayor and Council expressed the need to wait on a decision until the Master Trail Plan is finalized.

M. Dog Park Resurfacing

(Council will consider approving funding in the amount of \$60,000 for resurfacing of the dog park as recommended by the Parks & Recreation Commission)

Recreation Manager Leek reported that is being recommended to approve funding of \$60,000 for resurfacing of the dog park as recommended by the Parks and Recreation Commission.

Public comments from Sue Cochran about maintenance of the dog park and Barbara Ebel about the need for an environmentally friendly dog park were made.

After some Council questions Michele Salmon made a comment about her concern about drainage.

After some Council discussion, Council directed staff to return to a future meeting and provide more options that are more environmentally friendly with larger patches of turf. This item will be continued at a future City Council meeting.

N. Temporary shelter improvement for Lunch Truck at Park n Ride Site

City Manager Holstine reported that it is being recommended to approve a temporary shelter patio addition at the Park N Ride site for Brisbane Lunch Truck. The proposed shelter will be subject to building permit review and inspection.

Dana Dillworth's questions about the temporary shelter were read into the record.

After some Council questions, CM Conway made a motion, seconded by CM Lentz, to approve the temporary shelter improvement for the Lunch Truck at the Park n Ride Site. The motion is carried unanimously by all present.

Ayes: Councilmembers Conway, Cunningham, Davis, Lentz and Mayor O'Connell

Noes: None

Absent: None

Abstain: None

STAFF REPORTS

O. City Manager's Report on upcoming activities

- i. Update on Plan Bay Area 2050**
- ii. Update on Regional Housing Needs Assessment**

City Manager Holstine provided an update on Play Bay Area 2050 and the Regional Housing Needs Assessment.

MAYOR/COUNCIL MATTERS

O. Countywide Assignments and/Subcommittee Reports

Council reported back on the following Countywide Assignments:

- San Mateo County Emergency Services Council
- Joint MTC/ABAG Meeting

Q. City Council Meeting Schedule

The next scheduled City Council Meeting is on October 15, 2020.

R. Written Communications

Mayor and Council received the following written communications:

- Roland Lebrun (dated 9/9/20) San Francisco to San Jose draft EIR/EIS comments
- Anja Miller (dated 9/14/20) Council Action on High Speed Rail EIR/EIS
- Mike Griffiths, Torrance Councilmember (9/25/20) The Death of Local Control?
- Steve Kessler (9/26/20) Sept. 16 Brush Fire at the Ridge Likely PG&E, what's being done?
- Deborah (9/27/20) Save the Acres
- Claire Rappoport (9/22/20) Requesting Amendment to Smoking Ordinance 611
- Peninsula Clean Energy (dated 9/15/20) Joint Powers Agreement
- Dept of Alcoholic Beverage Control (10/1/20) Prime Now LLC
- Dana Dillworth (10/1/20) Comments for council meeting 10/1

ORAL COMMUNICATIONS NO. 2

Jason Nunan commented via text that he agreed with the comments of Michele Salmon on Item L.

ADJOURNMENT

S. Close the meeting in memory of Supreme Court Justice Ruth Bader Ginsburg

Mayor O'Connell adjourned the meeting at 11: 39 p.m.

Ingrid Padilla, City Clerk

F.

File Attachments for Item:

F. Approve Minutes of Joint City Council & Housing Authority Meeting of October 15, 2020



BRISBANE CITY COUNCIL
ACTION MINUTES

JOINT CITY OF BRISBANE CITY COUNCIL AND HOUSING AUTHORITY

MEETING AGENDA

THURSDAY, OCTOBER 15, 2020

VIRTUAL MEETING

CALL TO ORDER – PLEDGE OF ALLEGIANCE

Mayor O’Connell called the meeting to order at 7:30 p.m. and led the Pledge of Allegiance.

ROLL CALL

Councilmembers present: Councilmembers Conway, Cunningham, Davis, Lentz, and Mayor O’Connell

Councilmembers absent: None

Staff Present: City Manager Holstine, City Clerk Padilla, Interim City Attorney McMorrow, Director of Administrative Services Schillinger, City Engineer Breault, Community Development Director Swiecki, and Police Commander Macias

REPORT BACK FROM CLOSED SESSION

Interim City Attorney McMorrow reported that direction was given to staff and no action was taken by the Council.

ADOPTION OF AGENDA

CM Conway made a motion, seconded by CM Cunningham, to adopt the agenda as it stands.

ORAL COMMUNICATIONS NO. 1

No members of the public wished to speak.

CONSENT CALENDAR

- A. Approve Minutes of Housing Authority Meeting of June 18, 2020**
- B. Approve Minutes of Housing Authority Meeting of July 28, 2020**
- C. Approve Minutes of Housing Authority Meeting of October 1, 2020**
- D. Adopt Ordinance No. 653, Waiving Second Reading, Amending title 17 of the Brisbane municipal code to regulate accessory dwelling units and junior accessory dwelling units and amending title 15 of the Brisbane municipal code to regulate alterations and additions to existing structures**
- E. Award Construction Contract for Kings Road Roadway Protection Project (No. 920C)**

CM Conway made a motion, seconded by CM Cunningham, to approve Consent Calendar Items A-C and E. The motion was carried unanimously by all present.

Ayes: Councilmembers Conway, Cunningham, Davis, Lentz and Mayor O'Connell

Noes: None

Absent: None

Abstain: None

CM Lentz made a motion, seconded by CM Cunningham, to approve Consent Calendar Items D. The motion was carried unanimously by all present.

Ayes: Councilmembers Cunningham, Davis, Lentz and Mayor O'Connell

Noes: None

Absent: None

Abstain: Councilmember Conway

NEW BUSINESS

F. Consider use of Housing Authority Funds to assist Low-Moderate Renters/Homeowners with Payments Due to COVID-19 Related Issues

(The Council will consider whether to allocate \$100,000 of Housing Authority Low Income Funds for the purpose of rental and mortgage assistance)

Administrative Service Director Schillinger asked Council for direction whether the Council will consider allocating \$100,000 of Housing Authority Low Income Funds for rental and mortgage assistance.

Authority members were in favor of moving forward. After some council clarifying questions with staff, Authority Member Conway suggested to work with the County to collect information on residents in need. He also suggested to run the item through the Affordable Housing Subcommittee first. Authority Member Davis wants the City to run the program ourselves. Authority Member Lentz suggested to bring different models when the item is discussed at a future City Council meeting and that no one should be disqualified due to legal status .

STAFF REPORTS

G. City Manager's Report on upcoming activities

City Manager Holstine reported on upcoming activities and programs in the City.

MAYOR/COUNCIL MATTERS

H. Countywide Assignments and/Subcommittee Reports

Councilmembers reported on their activities in the following assignments:

- SMC Library JPA
- Metropolitan Transportation Commission
- School 2x2x2 Subcommittee

I. City Council Meeting Schedule

Council members cancelled the meetings of December 3 and 17th. Instead, a new meeting will be scheduled on December 10, 2020. The next City Council Meeting will be held on November 5, 2020.

J. Written Communications

The following written communication was received by Council:

- Kris Quigley (10/6/20) BMS to Acquire MyoKardia Press Release
- Barbara Ebel (10/7/20) Brisbane Halloween street closure

ORAL COMMUNICATIONS NO. 2

No members of the public wished to speak.

ADJOURNMENT

CM Cunningham made a motion, seconded by CM Lentz to adjourn the meeting. Mayor O’Connell adjourned the meeting at 8:37 p.m.

Ingrid Padilla, City Clerk

DRAFT

G.

File Attachments for Item:

G. Approve Resolution No. 2020-65 to Reappoint Carolyn Parker as City Representative to the Board of Trustees of the San Mateo County Mosquito and Vector Control District for a term through January 1, 2021 through December 31, 2024



CITY COUNCIL AGENDA REPORT

Meeting Date: November 19, 2020

From: Ingrid Padilla, City Clerk

Subject: Appoint a City Representative to the Board of Trustees of the San Mateo County Mosquito and Vector Control District

Community Goal/Result

Ecological Sustainability - Brisbane will be a leader in setting policies and practicing service delivery innovations that promote ecological sustainability

Purpose

Appoint the City Representative to the Board of Trustees of the San Mateo County Mosquito and Vector Control District for a term through January 1, 2021 through December 31, 2024

Recommendation

Approve Resolution No. 2020-65 to Reappoint Carolyn Parker as City Representative to the Board of Trustees of the San Mateo County Mosquito and Vector Control District for a term through January 1, 2021 through December 31, 2024

Background

San Mateo County Mosquito and Vector Control District uses an integrated pest management strategy to safeguard the health and comfort of the residents of San Mateo County. The San Mateo County Mosquito and Vector Control District’s Board of Trustees consists of 21 members, one from each city and one representative for the County at-large.

The current term of office for Carolyn Parker, Brisbane City representative to the Board of Trustees of the San Mateo County Mosquito and Vector Control District will expire on December 31, 2020. Due to Ms. Parker’s satisfactory job in her role, at the City Council of November 5, 2020, the Mayor and Councilmembers directed City Clerk Padilla to return with a Resolution to reappoint Carolyn Parker to a four-year term beginning January 1, 2021 through December 31, 2024.

Attachments

- 1. Resolution No. 2020-65

Ingrid Padilla

Ingrid Padilla, City Clerk

Clayton L. Holstine

Clay Holstine, City Manager

November 12, 2020

Carolyn L. Parker
Brisbane Trustee
San Mateo County Mosquito and Vector Control District

Attention: Ingrid Padilla

Dear Mayor O'Connell and City Council,

I am writing of my intent to request the City of Brisbane to reappoint me as Brisbane's Trustee of The San Mateo County Mosquito and Vector Control District for another of office of four years.

I have been serving in my capacity as Trustee for Brisbane since January 2, 2017. During this time I have sat on the Environmental Committee where we finalized the Programmatic Environmental Impact Report (PEIR), the Policy Committee, and the Finance Committee. I want to continue my role as the Brisbane representative.

I feel the San Mateo County Mosquito and Vector Control District serves a vital role in Brisbane and San Mateo County in protecting public health through vector management and research. I would like to do my part to keep this District responsive to our Community needs

Thank you for your consideration.

Carolyn L. Parker

H.

File Attachments for Item:

H. Approve Resolution No 2020-64, "Establishing a 15 MPH Speed Limit Adjacent to Public Schools During School Hours When Children Are Present."



CITY COUNCIL AGENDA REPORT

Meeting Date: November 19, 2020

From: Director of Public Works/City Engineer

Subject: Prima Facie Speed Limits Adjacent to Public Schools

Community Goal/Result

Safe Community

Purpose

To establish speed limits near school zones that are consistent with previous recommendations from the Complete Streets Safety Committee (CSSC) and in compliance with California Vehicle Code §22358.4(b)(1).

Recommendation

Approve Resolution No 2020-64, "Establishing a 15 MPH Speed Limit Adjacent to Public Schools During School Hours When Children Are Present."

Background

One component of a set of recommendations from CSSC that Council previously reviewed and approved was the reduction of speed limits adjacent to school grounds to 15 mph. The complete set of recommendations was incorporated into a combined Safe Routes to School/Green Infrastructure project that Council subsequently approved, and which has been constructed.

The final step in incorporating the recommendations is to adopt the attached Resolution to officially establish the prima facie speed within the street limits identified on Exhibit A to the resolution. (The limits of these new reduced speed zones will be marked by a speed limit sign at the beginning, middle, and end of the zone.¹)

Discussion

The alternative to not approving the resolution is to restore the speed limits adjacent to the schools to the 25 mph prima facie speed determined by state law in the absence of a resolution or ordinance from the City Council specifying a different limit.

¹ "75 ft. north of Alvarado Street" is adjacent to 460 San Bruno.
"245 ft. west of Glen Parkway" is adjacent to 282 San Benito.

Fiscal Impact

No additional impact. The project has been constructed. The signs are presently in place, but school zone speed limits are not now being enforced as children are not attending school in person due to COVID-19.

Measure of Success

Safe and appropriate speed limits near school grounds, which encourage children and their parents to walk or bicycle to/from school.

Attachments

1. Resolution No. 2020-64

RL Breault

Randy Breault, Public Works Director

Clayton l. Holstine

Clay Holstine, City Manager

RESOLUTION NO. 2020-64

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BRISBANE
ESTABLISHING A 15 MPH SPEED LIMIT ADJACENT TO PUBLIC SCHOOLS
DURING SCHOOL HOURS WHEN CHILDREN ARE PRESENT**

WHEREAS, On January 1, 2008, the provisions of California Assembly Bill 321 (Nava, 2007) amending Section 22358.4 of the California Vehicle Code (CVC) went into effect allowing local jurisdictions to reduce the speed limit to 15 miles per hour (mph) up to 500 feet from school grounds; and

WHEREAS, the reduced speed limits can be applicable on streets that meet the following conditions:

- (I) Within a residential district that has a posted speed limit no greater than 30 mph, and
- (II) No more than a total of two through lanes of traffic; and

WHEREAS, the City Council desires to establish prima facie speed limits during school hours when children are present at four (4) locations adjacent to two (2) public schools within the City of Brisbane that meet the conditions described above; and

WHEREAS, the City Council finds based on the recommendations of its City Engineer and the city’s Complete Streets Safety Committee that the speed limits set forth in Exhibit A herein are the most reasonable, safe and appropriate for the orderly movement of traffic on the applicable portions of such streets; and

WHEREAS, this action is categorically exempt from environmental review pursuant to the California Environmental Quality Act Guidelines (14 CCR §15301(c)) because it involves no expansion of existing use of a city street.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BRISBANE RESOLVES AS FOLLOWS:

Section 1. The speed limits set forth in Exhibit A of this Resolution, which is incorporated in its entirety, are determined and declared to be the prima facie speed limits on those streets and portions of streets set forth herein.

Terry O'Connell, Mayor

* * * *

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Brisbane held on the ___ day of _____, 2020, by the following vote:

- AYES:
- NOES:
- ABSENT:
- ABSTAIN:

ATTEST:

Ingrid Padilla, City Clerk

EXHIBIT A

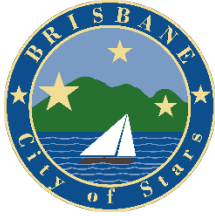
**Locations for Establishment of
15 MPH Speed Zones During School Hours When Children Are Present
25 MPH Speed Zones Outside School Hours**

No.	School Name	Street Name	Limit 1	Limit 2
1	Brisbane Elementary	San Bruno Avenue	75 ft. north of Alvarado Street	Tulare Street
2	Brisbane Elementary	Glen Parkway	San Bruno Avenue	Lake Street
3	Brisbane Elementary	San Benito Road	Glen Parkway	245 ft. west of Glen Parkway
4	Lipman Middle	Solano Street	School Entrance	Monterey Street/Humboldt Road

I.

File Attachments for Item:

I. Approve Response to Grand Jury Report "Ransomware: It is Not Enough To Think You Are Protected"



CITY COUNCIL AGENDA REPORT

Meeting Date: 11/19/2020

From: Stuart Schillinger, Deputy City Manager

Subject: Response to Grand Jury Report “Ransomware: It is Not Enough To Think You Are Protected”

Community Goal/Result

Financial Sustainability

Purpose

To ensure the City’s information technology infrastructure and data is protected from ransomware threats.

Recommendation

Approve the City’s response to the Grand Jury report.

Background

On October 7, 2020 the Grand Jury released its report regarding ransomware and local government agencies.

Discussion

The Grand Jury expressed a concern in their report that governmental agencies may have their IT infrastructure and therefore their data open to ransomware attacks. Their report states the single largest exposure every organization has to cyber-thieves is phishing, the illegal practice of sending legitimate-looking emails to an organization’s employees.

According to Kaspersky.com (a leading software security firm) ransomware is a malicious software that infects your computer and displays messages demanding a fee to be paid in order for your system to work again. This class of malware is a criminal moneymaking scheme that can be installed through deceptive links in email, instant message, or website.

: Response to Grand Jury Report “Ransomware: It is Not Enough To Think You Are Protected”

The report provides a list of best practices.

- Anti-Malware definitions need to be constantly updated to retain their effectiveness.
- Software updates need to be kept current.
- To identify external emails, message rules can be used to flag external emails and thereby decrease the probability that a user clicks on bad content.
- To thwart phishing attempts, footers can be added to incoming emails to warn about opening attachments and clicking on links.
- Security training, awareness, and assessment need to be routine along with testing all employees to recognize, delete, and report attempted attacks.
- Establishing a thorough and comprehensive backup process for all Servers using 3-2-1 rule and establishing a separate backup process for key users' critical folders to be able to restore/recover from a secure onsite and/or offsite backup.
- Snapshots and/or image backups provide the most complete backup and fastest recovery option.
- Consider cloud hosting of email and other applications to provide added security, backup and restore capabilities and filtering benefits to close the largest and easiest route for Ransomware to penetrate entity systems.

Specifically, as it relates to findings and recommendations:

F1. Ransomware is a real and growing threat to public entities including those in San Mateo County. **AGREE**

F2. Across the country, local governments and schools represent 12% of all Ransomware attacks. **The City has no reason to disagree with this finding**

F3. The direct and indirect costs of Ransomware can be significant. **AGREE**

F4. Cybersecurity reviews and assessments, and an updated, and well-executed Cybersecurity plan, are critical components of IT security strategy. **AGREE**

F5. A comprehensive Cybersecurity plan should include, at a minimum, information concerning prevention steps, spam and malware software, and backups and full recovery testing. **AGREE**

F6. The identification of phishing attempts, including the use of spam filters, is an important component to protecting an IT system from Ransomware attacks. **AGREE**

F7. Testing a full restore of a server to ensure that backups are reliable should be taken regularly as part of an entity's backup plan to recover lost information. **AGREE**

: Response to Grand Jury Report "Ransomware: It is Not Enough To Think You Are Protected"

F8. Training new employees, and the recurring training of existing employees, is an important component of defense against Ransomware. **AGREE**

Recommendations from the Grand Jury

R1. Each of the governmental entities in San Mateo County with an IT department or IT function (whether in-house, handled by another government unit or outsourced to a private enterprise) as listed in Appendix F, should by November 30, 2020, make a request for a report from their IT organization that addresses the concerns identified in the report, specifically:

1. System Security (Firewalls, Anti-malware/Antivirus software, use of subnets, strong password policies, updating/patching regularly)
2. Backup & Recovery (In the event of an attack, can you shut down your system quickly? What is being backed up, how it is being backed up, when are backups run, and where are the backups being stored? Have backups been tested? Can you fully restore a Server from a backup?)
3. Prevention (turning on email filtering, setting up message rules to warn users, providing employee training on phishing and providing a reporting system to flag suspect content).

The city uses two outside entities to assist with the security of its IT infrastructure NevTec and Endsight. The City will be requesting the firms to provide a report that details the information outlined above. The report will be completed prior to June 30, 2021.

R2. These confidential internal reports should be provided to the governing body by June 30, 2021. This report should describe what actions have all ready been taken and which will be given timely consideration for future enhancements to the existing cybersecurity plan.

The City will provide these reports to the City Council by June 30, 2021.

R3. Given the results of their internal reports, governmental entities may choose to request further guidance by means of a Cybersecurity review from the U.S. Department of Homeland Security^{5 6} and/or a cyber-hygiene assessment from the County Controller's Office.

The City will study and discuss the results to determine the next steps.

R4. Given the results of their internal reports, governmental entities may choose to ask their- IT departments to review their own Cybersecurity Plan with the detailed template provided by the FCC's Cybersecurity Planning Guide and consider customizing it using FCC's Create Custom Cybersecurity Planning Guide tool.

The City will study and discuss the results to determine the next steps.

Fiscal Impact

There cost of obtaining the necessary reports from NevTec and Endsight is not currently included in the City’s budget. If the cost will have a material impact on the City’s IT or Police budget staff will bring this information to City Council before proceeding.

Measure of Success

The City is as well protected against a Ransomware attack as possible.

Attachments

- 1) Grand Jury Report.

Stuart Schillinger

Stuart Schillinger, Deputy City Manager

Clayton l. Holstine

Clay Holstine, City Manager



Superior Court of California, County of San Mateo
Hall of Justice and Records
400 County Center
Redwood City, CA 94063-1655

NEAL TANIGUCHI
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OFFICER
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COMMISSIONER

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www.sanmateocourt.org

October 7, 2020

Councilmember
City of Brisbane
50 Park Place
Brisbane, CA 94005

Re: Grand Jury Report: "Ransomware: It Is Not Enough To Think You Are Protected"

Dear Councilmembers:

The 2019-2020 Grand Jury filed a report on October 7, 2020 which contains findings and recommendations pertaining to your agency. Your agency must submit comments, within 90 days, to the Hon. Danny Y. Chou. Your agency's response is due no later than January 5, 2021. **Please note that the response should indicate that it was approved by your governing body at a public meeting.**

For all findings, your responding agency shall indicate one of the following:

1. The respondent agrees with the finding.
2. The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefore.

Additionally, as to each Grand Jury recommendation, your responding agency shall report one of the following actions:

1. The recommendation has been implemented, with a summary regarding the implemented action.
2. The recommendation has not yet been implemented, but will be implemented in the future, with a time frame for implementation.
3. The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a time frame for the matter to be prepared for discussion by the officer or director of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This time frame shall not exceed six months from the date of publication of the Grand Jury report.
4. The recommendation will not be implemented because it is not warranted or reasonable, with an explanation therefore.

Please submit your responses in all of the following ways:

1. Responses to be placed on file with the Clerk of the Court by the Court Executive Office.
 - Prepare original on your agency's letterhead, indicate the date of the public meeting that your governing body approved the response address and mail to Judge Chou.

Hon. Danny Y. Chou
Judge of the Superior Court
c/o Jenarda Dubois
Hall of Justice
400 County Center; 8th Floor
Redwood City, CA 94063-1655.

2. Responses to be placed at the Grand Jury website.
 - Copy response and send by e-mail to: grandjury@sanmateocourt.org. (Insert agency name if it is not indicated at the top of your response.)
3. Responses to be placed with the clerk of your agency.
 - File a copy of the response directly with the clerk of your agency. Do not send this copy to the Court.

For up to 45 days after the end of the term, the foreperson and the foreperson's designees are available to clarify the recommendations of the report. To reach the foreperson, please call the Grand Jury Clerk at (650) 261-5066.

If you have any questions regarding these procedures, please do not hesitate to contact Paul Okada, Chief Deputy County Counsel, at (650) 363-4761.

Very truly yours,



Neal Taniguchi
Court Executive Officer

Enclosure

cc: Hon. Danny Y. Chou
Paul Okada

Information Copy: City Manager



Ransomware: It Is Not Enough To Think You Are Protected

ISSUE

City and county government computer systems are at risk of Ransomware attacks. Are adequate measures being taken by local government agencies to mitigate the risks and provide recovery options?

SUMMARY

Ransomware has already hit many governmental Information Technology (IT) systems in San Mateo County. In December 2019 the Grand Jury sent an online survey to all 68 public entities in San Mateo County,¹ received 37 survey responses (a 54% response rate), and interviewed several responders including one IT Manager (who had refused to respond to the survey for fear of being successfully attacked once again), for a total of 38 responses via survey and interview. More than 25% (10 of 38) of the public entities responding to the Grand Jury reported that they have been a victim of one or more Ransomware attacks. More concerning is the certainty that there will be more attempts to violate the integrity of our local governments' electronic infrastructure.

This report is intended to present “best practices” in developing a Cybersecurity strategy, then implementing and testing that plan. It addresses actions that can be taken (and have been taken, in some cases) in order to guard against Ransomware attacks, recover from an attack and the additional measures that can be taken to reduce the possibility of an attack. However, it is not an exposé with details of potential system weaknesses, in light of the need for Cybersecurity strategies and practices to be highly confidential. As such, this report walks the line between providing an informed discussion of potential concerns without providing a road map of how to breach public government IT systems.

The single largest exposure every organization has to cyber-thieves is phishing, the illegal practice of sending legitimate-looking emails to an organization’s employees. These emails may contain malware or links that, when clicked, infect the computer with a virus that can spread to the entire information systems network.

Although many email software programs include some level of protection against Ransomware attacks, such protections require customization and activation, and it is not clear that local public entity IT departments are undertaking these necessary customization and activation steps. In addition, training for new employees and recurring training for existing employees is critical to dramatically reducing the probability of a Ransomware infection. In some agencies, it appears

¹ See Appendix F: Public Entities in San Mateo County (Cities, County, School Districts, Special Districts)

that only limited training is provided for new employees with little or no recurring training provided for current employees.²

Ransomware and other malware attacks are a test to an organization's backup and restoration procedures.³ The Grand Jury found that none of the survey responders has actually performed a full restore as a test of their backup process. However, without adequate testing, backups do not provide sufficient protection.

Rigorous preparation for an attack is essential if fast and full recovery is desired and the payment of a ransom is to be avoided. There are several significant steps that local public entities should take to improve their defenses, their ability to detect incursions, and their responses to Ransomware attacks. These steps include:

- Using firewalls to protect internal environments from breaches;
- Using malware detection software to monitor incoming emails and network activity;
- Ensuring that users are educated and tested to learn what to watch for and avoid, especially in emails;
- Developing and fully testing a thorough backup and restore strategy to enable a complete recovery from an attack;
- Putting in place internal controls such as subnets, which require departmental authorization to access other department's data or programs.

In addition, cloud hosting should be considered for email and certain applications to reduce the success of Malware and Ransomware attacks on information systems infrastructure.

While all attacks are malicious in terms of time and potential data loss, in the case of Ransomware (or worse, Ransomware 2.0 that also infects backup data) the financial cost of paying the ransom in order to remove the infection and restore a data system can be significant. Alternatively, if the decision is to not pay the ransom but to attempt to recover from the infection manually, the direct and indirect costs could be considerably more.

This report is directed to the governing bodies of government entities in San Mateo County urging them to have their IT staff confidentially and urgently assess their respective Ransomware protection strategies and training and then move with all deliberate speed to address any shortcomings in their Cybersecurity programs.

GLOSSARY

CLOUD COMPUTING

Cloud computing is the delivery of on-demand computing services -- from applications to storage and processing power -- typically over the internet and on a pay-as-you-go basis. Rather than owning their own computing infrastructure or data centers, companies can rent access to

² Grand Jury interviews

³ Epicor Corporation, *Protecting Yourself From Ransomware*, January 2020

anything from applications to storage from a cloud service provider.⁴ Some examples of this are Yahoo Mail, services like Google Docs, and customer relationship management software.⁵

CYBERSECURITY

Cybersecurity refers to the body of technologies, processes, and practices designed to protect networks, devices, programs, and data from attack, damage, or unauthorized access.⁶

Cybersecurity is a combination of secure systems (hardware and software) built into technology as well as human intervention, monitoring, training, awareness, and recovery.

ENCRYPTION

The process of locking out the contents of a file and the renaming of the file such that it cannot be opened and used in the intended application (e.g. Microsoft Excel). Typically, a 128 Bit (or larger) encryption key (a long series of letters and numbers) is used first to encrypt then later to un-encrypt a file.

MALWARE

Short for “malicious software,” this software is designed specifically to damage or disrupt computer systems. Not all malware is Ransomware because some malware has no related attempt to extort money.

PHISHING

The illegal practice of sending email claiming to be from reputable companies to induce individuals to reveal personal information or click on website links or open attachments that then install malware.

RANSOMWARE

Ransomware can be simply described as an infection on a host machine that prevents access to data until a ransom is paid. The most common method of infection is to encrypt files making them totally unreadable by a user. The infection is usually delivered by a *Trojan Horse* (a term referring to the misleading of users of its true intent) installed when a user clicks on a malicious link or attachment in an email.

RANSOMWARE 2.0

This newer version of Ransomware no longer is just malware that encrypts data and asks for ransom, the attacker also threatens to release the data onto the internet and demands money in order not to do so. This newer Ransomware works in such a way that even backup copies of most important files will not be able to save an infected organization.⁷ By planting the malware but delaying its activation, Ransomware 2.0 can infect backups thus defeating their value.

⁴ <https://www.zdnet.com/article/what-is-cloud-computing-everything-you-need-to-know-from-public-and-private-cloud-to-software-as-a/>

⁵ Pearson Education, Ubuntu Unleashed 2015 Edition: Covering 14.10 and 15.04, page 655

⁶ <https://digitalguardian.com/blog/what-cyber-security>

⁷ <https://www.itproportal.com/news/welcome-to-the-era-of-ransomware-20/>

BACKGROUND

Ransomware is a real and serious threat to every entity: government organizations, corporations, and individuals. The more dependence an organization has on the software and data in its network(s), the more important the concern should be. Loss of access to mission-critical data, systems, and software can severely impact an organization in both the short and long term.

According to an October 2019 report by the National League of Cities, since 2013, Ransomware attacks have been reported by at least 170 county, city or state government entities across the United States.⁸ The actual number is likely to be much higher because it represents only those attacks that have been reported. Many infections go unreported when ransoms are paid,⁹ when organizations are seeking to avoid embarrassment, or when the attacks were simply undetected or untraceable.¹⁰ This has been true even in San Mateo County where local public governing entities have had Ransomware attacks that were not publicly reported.¹¹

Not only do such data breaches embarrass and slow organizational productivity, they can be very expensive. For example, the MIT Technical Review (2019) asserts: “Ransomware may have cost the U.S. more than \$7.5 billion in 2019... the victims were 113 governments and agencies, 764 health-care providers, and up to 1,233 individual schools affected by Ransomware attacks...most local governments do a poor job of practicing Cybersecurity.”¹² The cost to the city of Atlanta to recover from its Ransomware breach was estimated at \$17 million.¹³ Similarly, a recent Baltimore Ransomware breach is estimated to have cost over \$18 million.¹⁴ In 2020, the UC San Francisco School of Medicine paid \$1.14 million in ransom to recover its own data.¹⁵ These are large cities and entities and although the ransom amounts they paid may not represent the expenses a San Mateo County public organization could incur, they provide examples of the severity of the potential threat and the enormous costs.

Specifically, the costs of a Ransomware attack could include some or all of the following:¹⁶

- Direct Costs:
 - Paying the ransom to obtain an encryption key and hoping that it works;
 - Expenditures for outside IT professionals and new systems providers to plan and implement improved breach security based on new Ransomware strategies;

⁸ National League of Cities report, *Protecting Our Data: What Cities Should Know About Cybersecurity*. Forward by Clarence Anthony, CEO and Executive Director.

⁹ <https://healthitsecurity.com/news/as-ransomware-attacks-increase-dhs-alerts-to-Cybersecurity-insights>

¹⁰ Sheehan, Patrick, Ohio Emergency Management Agency, *Cascading Effects of Cyber Security on Ohio*, September 19, 2012

¹¹ Grand Jury survey responses

¹² MIT Technology Review, *Ransomware may have cost the US more than \$7.5 billion in 2019*, January 2, 2020

¹³ The Atlanta Journal- Constitution, Stephen Deere. *Confidential Report: Atlanta’s cyber attack could cost taxpayers \$17 million*. August 2018.

¹⁴ Baltimore Sun, Ian Duncan, *Baltimore estimated cost of ransomware attack at \$18.2 million as government begins to restore email accounts*. May 29, 2019.

¹⁵ San Jose Mercury News, David Wu, “*UCSF pays \$1.14 million ransom to recover data*”, July 4, 2020

¹⁶ <https://www.sentinelone.com/blog/what-is-the-true-cost-of-a-ransomware-attack-6-factors-to-consider/>

- Paying for enrollments in credit reporting bureaus to stop or correct identity thefts (from the release of previously confidential or secure personal information) for client/customers.
- Replacing hardware and/or software.
- Indirect Costs:
 - Operations efforts to restore systems and data;
 - Organizational downtime as well as employee overtime;
 - Reputation loss including negative public relations and loss of confidence by the organizations' constituents;
 - Liabilities for legal costs, including defense of lawsuits for breach of private and confidential information and poor handling of personal data.

According to the Coveware Report,¹⁷ the median ransom payment in the first quarter of 2020 was \$44,021. This was an increase of roughly 10% over the last quarter of 2019. Public sector entities represented 12% of attacks, about half of which were school systems. The average days of downtime was 15 representing an alarming number of days of inability to service constituents.¹⁸ This underlines an urgent need to understand and evaluate current local governments' Cybersecurity strategies.

The discussion that follows is intended to encourage local public agencies and their IT staff to confidentially evaluate their respective Cybersecurity plans, software and prevention strategies. Since data and systems security are essential to the operation of every public entity in the County, the discussion will not present a specific road map for potential Ransomware-prevention actions but rather establish a "best practice model" that will enhance understanding of the elements essential for an adequate protection plan.

DISCUSSION

In December 2019, the Grand Jury developed an online survey that was sent to all 68 public entities in San Mateo County.¹⁹ Responses were received from 37 of the entities (a 54% response rate). Additionally, follow-up interviews were conducted with three local public IT Managers, one of whom had refused to complete the online survey for fear of disclosing confidential information that could lead to a successful malware or Ransomware attack. These interviewees were questioned regarding the adequacy of Cybersecurity planning and execution. Following a general analysis of local government practices, this report concludes with a review of Cybersecurity best practices which local agencies should consider adopting.

Two Ransomware Attacks Derailed: Best Practices in Action

In order to better understand how to successfully defeat a Ransomware attack, the Grand Jury interviewed an IT Manager of a private enterprise that was attacked twice by Ransomware and was able to fully restore the environment and re-establish workflow within just a few hours.

¹⁷ <https://www.coveware.com/blog/q1-2020-ransomware-marketplace-report>

¹⁸ <https://www.msspalert.com/Cybersecurity-research/average-ransomware-payment-rises-again-research/>

¹⁹ Appendix F

Given the usual secrecy involved in most malware incursions, the following description of this IT manager's actual experience is instructive since it offers an example of "best practices" that can guide others anticipating or facing a Ransomware threat.²⁰

This organization suffered two serious breaches less than two months apart and successfully recovered both times. In the first breach, within 45 minutes of a user clicking on an email attachment, the Crypto virus had spread to 12 of the organization's 23 servers. The IT Manager was alerted to the problem both by the user whose PC was locked with the Ransomware demand on his screen and an auto alert from the network scanning software that reported unusual activity.

The IT Manager's first action was to rapidly shut down the entire server network. This of course stopped the spread of the virus, but also prevented users from performing their jobs. Fortunately, their backup strategy implementation worked well as they were able to fully recover within hours.

The major components of the protection strategy employed included:

- Separating the network into discrete departments or segments (creating subnets) which restricted individuals' access to only servers containing their department's software and network storage. This limited the spreading of the virus across various departments within the organization. The analogy is a modern ship with rooms and decks that can be completely closed off from each other in the event of a fire or explosion.
- Taking snapshots (copies) of their Storage Area Network (SAN) twice a day.
- Completing full nightly backups of their SQL databases and incremental backups of the databases at five-minute intervals.
- Performing server backups with a commercial external backup appliance and/or service. See Appendix D for examples of companies in this market.²¹
- Regularly testing the restore process to ensure the successful recovery of critical server hardware. Without testing, there is no assurance that the Cybersecurity plan will work. Moreover, even if it works once, that is no assurance it will work again, without periodic re-testing.
- Conducting weekly backups of critical personnel's full PC hard drives.
- Use the "3-2-1 strategy"²²: do three backups into two different media including one offsite.

Having all of these Cybersecurity plan components was a good start but it took much more to affect a recovery. First a commercial Virus Removal Software Tool was used which did not work (in this case). Therefore, the IT team used the snapshot copies to replace corrupted data on infected server units followed by the application of the incremental backups of the database to complete the restore.

²⁰ Grand Jury Interview

²¹ These services include onsite and offsite backup and recovery services which are usually located outside the immediate locale.

²² Management Wire, *The 3-2-1 Backup Rule and Effective Cybersecurity Strategy*, January 7, 2020.

This detailed example represents a well thought out and highly prepared plan, executed with precision. The first breach resulted in 4½ hours of downtime as 12 servers were infected. The second breach resulted in 6 ½ hours of downtime to recover 19 affected servers. The IT team was able to recover the servers and their data both times, become fully operational within hours, and the organization did not pay any ransom demands.

Grand Jury Cybersecurity Survey and Follow-up Interviews

Survey question:²³ *“Has your Organization had a Ransomware attack? Specifically, has there been an instance or multiple instances when an attack has locked up a computer or computers and presented a demand for ransom to unlock the infection?”*

Nine survey responders and one non-survey responder interviewee, a total of 10 of 38 (37 responders to the online survey and one non-survey responder) affirmed an attack had occurred or had possibly occurred in their organization, a 26% “hit” rate. The circumstances of their attacks were reviewed.²⁴ The non-survey interviewee was the IT manager from a public entity in the County who was unwilling to complete the survey because they did not want to reveal that their organization had been subject to “one or more” Ransomware attacks. Nor were they willing to disclose how successful the Ransomware attack(s) were for fear that they would open themselves up to more attacks.

Survey Question:²⁵

“Is your Information Systems Budget adequate to secure your network properly from malicious attack?”

Thirty-two of the 37 survey respondents, or 86%, answered Yes to this question. This high percentage of “Yes” responses either indicates a high level of confidence in their defense setup, a reluctance to complain about their IT budget, or as two of our follow-up interviewees revealed²⁶, a lack of understanding of the complexity of a well-written, well-executed Cybersecurity Plan.²⁷ Suggesting the latter, The National League of Cities conducted a similar survey of 165 city governments nationwide and asked the same question, (*“Is your budget adequate enough to secure your network properly?”*): 67% replied “No”.²⁸

Investigation Results Regarding Backup/Restore/Maintenance

The Grand Jury survey and follow-up interviews revealed that, while many local agencies have backup plans,²⁹ only a portion of those same agencies had successfully recovered lost files from backups and none of the survey responders had ever done a full restore of a server.³⁰ When an

²³ Appendix A – Question #1

²⁴ Grand Jury Interview

²⁵ Appendix A – Question #2

²⁶ Grand Jury Interviews

²⁷ Federal Communications Commission, *Cyber Security Planning Guide*, October 2012.

²⁸ National League of Cities report, *Protecting Our Data: What Cities Should Know About Cybersecurity*, page 8

²⁹ Appendix A – Question #3

³⁰ Appendix A – Question #4

attack occurs with inadequate backup processes in place, there is no way to recover. Moreover, a proactive and well-thought-out business continuity plan is something that all system and data administrators must embrace.

What is a good backup strategy? Certain applications provide the ability within the applications themselves to set up different types of backups and schedule them to be performed automatically. A good example of this is SQL.³¹ Using a SQL-based approach, both nightly full database backups can be scheduled as well as intermittent transaction log backups (which capture activity during small time increments), so that a recovery could be completed with virtually no loss of data. These backups should then be stored according to the 3-2-1 backup rule³² whereby three copies or versions are taken, stored on two different media, one of which is offsite. Operating systems and third-party vendors offer a multitude of backup solutions for servers. Snapshots or image backups³³ provide the most complete backup and the fastest restore option.³⁴

Raj Samani, Chief Technology Officer for Europe at Intel Security captures the importance of a complete backup strategy, “Most Ransomware attacks can be avoided through good cyber hygiene and effective, regular data backups that are continually tested to ensure they can be restored if needed.”³⁵

As this discussion shows, the technology to prevent and if necessary, correct, the impact of a malware attack is available. Local government agencies must be pro-active and vigilant in using such to protect their data and their businesses.

Investigation Results Regarding Employee Training

Education is the best defense. “Preventing infection is far easier than correcting the situation as most of the infections are acquired either from a socially engineered email (one that appears reputable or from a familiar source), or from visiting an infected website, so controlling risk on your side is the easiest method.”³⁶

Answers to Survey Question #5 provide strong evidence for the need for the governing boards to review with their IT managers their defenses against cyberthreats: “*Do you provide training to employees regarding malware?*” 12 responded with a non-qualified “Yes”. Nine responded “No” (24%) and 16 responded with a qualified “Yes” (42%) and described their training as needing improvements.³⁷ As one survey responder commented, “The answer is yes, but a lot more needs to be done.”

³¹ Structured Query Language (SQL) is a programming language

³² Management Wire, *The 3-2-1 Backup Rule and Effective Cybersecurity Strategy*, January 7, 2020.

³³ Image backup consists of block by block storing of the contents of a hard drive

³⁴ <https://www.ltnow.com/file-backup-vs-image-backup-which-is-best/>

³⁵ Zerto, Raj Samani, *Ransomware – Mitigating the Threat of Cyber Attacks*, 2019

³⁶ Epicor, *Protecting Yourself from Ransomware*, January 2020

³⁷ Grand Jury Survey responses

Cybersecurity training is a well-established industry – providing a focused set of classes and materials designed to reduce users’ clicks on harmful links and attachments. Security training, awareness, and assessment should be a routine part of the Cybersecurity strategy in government. Deploying such a program covers the education, training and testing of employees to recognize, delete and report attempted attacks. Studies show these programs reduce but do not eliminate user error.

Government Technology magazine captured it best in their cover story entitled “In the quest to guard against cyberthreats, can we solve the people problem? The Weakest Link.”³⁸ The article concluded that even with the best training programs and defenses, the human element may never be completely overcome.³⁹ This is precisely why recurring training and user testing is encouraged by best practices.

Handling Incoming Emails – Phishing Defenses

In a worldwide survey of Managed IT Service Providers (MSP’s) in 2019, “67% of Ransomware attacks originated from a phishing or spam email...the easiest method of delivery and man does it pay off.”⁴⁰ The greatest threats take advantage of users “within” the network, i.e., users who click on malicious links or open email attachments that contain viruses or make other mistakes that allow hackers to gain access to the entity’s system or network. Trend Micro estimates that the vast majority of all attacks occur when a user clicks on something they should not.⁴¹

There are different ways to help the user community recognize and protect against a phishing attack. Most network environments utilize spam filters to automatically filter incoming messages. Spam filters are used to detect unsolicited, unwanted, and virus-infested email and stop it from getting into email inboxes.⁴² “Additionally, malware detection software can also be highly successful in reducing the risk of Ransomware but the anti-malware definitions (a database of known infectious code) need to be constantly updated...which takes effort and time but represents the single most effective defensive strategy.”⁴³

Message rules can be used to flag external emails and thereby decrease the probability that a user clicks on bad content. An administrator can set up message rules on a users’ client or the email server. An example of a message rule might be if the sending organization includes @smithco.com in the sender’s address, the message is automatically moved the incoming message into a personal folder called “Smith Company.” A better example would be a rule that flags all external emails (not from the host’s domain) and warns about the threats of clicking on attachments or weblinks. An example of this visual potential threat message rule is displayed in Appendix C.

³⁸ Government Technology Magazine, Adam Stone, *The Weakest Link*, Oct/Nov 2018

³⁹ Ibid

⁴⁰ VadeSecure – Predictive Email Defense, *Ransomware Attacks: Why Email is still the #1 Delivery Method*, January 16, 2020

⁴¹ <https://blog.trendmicro.com/online-phishing-how-to-stay-out-of-the-hackers-nets/>

⁴² <https://www.mailchannels.com/what-is-spam-filtering/>

⁴³ Epicor, *Protecting Yourself from Ransomware*, January 2020

Message rules can be very powerful to alert users of potential threats or to be careful about what they might click on and endanger their system. Some of the vendors listed in Appendix B also can “report” a suspected phishing attempt to an IT administrator. The Grand Jury’s review revealed that some of the Information Technology Services departments for local public entities have installed message rules on their email servers to notify users of external emails.⁴⁴ This is a “best practice” which all local governmental agencies should consider.

Phishing emails are easy to create, as they do not take a high level of skill to provide the illusion of legitimacy by mimicking web-site brands or using logos from Google images. They can also easily spoof (fake) an email address to look like a trusted source.⁴⁵ It can often be very difficult to catch these risky emails, as the spoofed emails are cleverly disguised. A YouTube video created by Cisco Systems illustrates the sophisticated approach a phishing email may take – “Anatomy of an Attack”.⁴⁶ It shows an attacker constructing a realistic identity deception email and can be viewed at <https://www.youtube.com/watch?v=4gR562GW7TI>. After you watch this video please note, had an email filter caught this message and flagged it as external and warned about clicking on links, the deception may have been caught.

What Does Excellent Cyber Defense Look Like?

Survey Question⁴⁷: “*What defenses do you currently employ to block malware? Please be specific. (Firewall brand/model, Software filters/spam blocker, etc.)*”

Five survey responders did not divulge the infrastructure of their environment. 17 responders provided abbreviated details indicating they do have Cybersecurity protections in place. The remaining 15 responses were explicit about their organizations’ hardware and software defense strategies. Below is a survey response that illustrates a well-protected environment using some of the best practices of Cybersecurity:

“At the first layer, we use a PAN 220 Firewall with all subscriptions enabled, (URL Filtering, Antivirus/Vulnerability, Wildfire, etc.), block all international countries both in and outbound. Once traffic is passed for email, it passes through a Barracuda spam filter, filtering and scanning phishing and virus emails, checks with External Reputation servers for known virus and spamming servers, then passes to an on-premise exchange server. The exchange servers have another layer installed, Symantec Antivirus, giving a third layer of scanning. All servers and workstations have the latest version of the antivirus installed controlled by a centralized server. Window patches are applied on a monthly basis to all servers and workstations, and servers are retired once Microsoft ends support for an operating system.”⁴⁸

The survey respondent’s best practices:

- Filtering incoming email for viruses, malware, and phishing attempts;
- Utilizing protection software from multiple vendors;
- Utilizing multiple layers of defense;

⁴⁴ Grand Jury interviews

⁴⁵ Ibid

⁴⁶ Cisco Systems, *Ransomware - Anatomy of an Attack*, <https://www.youtube.com/watch?v=4gR562GW7TI>

⁴⁷ Appendix A - Question #6

⁴⁸ Grand Jury Survey response

- Keeping systems up-to date.

Breaches and attacks that manage to extract data (Ransomware 2.0) expose additional risks to sensitive information. Security professionals point out additional options for securing organizational data:⁴⁹

- Use Subnets⁵⁰ to section out servers with separate security permissions and limited access;
- Disable and block unused services, protocols and ports;
- Perform Backup & Recovery (focus on full testing of recovery);
- Strengthen the password policy (long, complex, with expiration dates);
- Employ 2-factor authentication (password then keycode) for external user access.⁵¹
- Install Anti-malware / Antivirus software on all machines and keep current (update at least monthly);
- Update at least monthly, patches for operating systems, firewalls, spam filters, malware, and other key applications;
- Perform monitoring and auditing of failed logins, password changes, resource usage, and services stopping.

Local public entities can get assistance from The Federal Communications Commission's (FCC) Cyber Security Planning Guide that includes a customized Cyber Security Planning Tool to craft and execute a customizable Cybersecurity plan.⁵² As their introduction explains, "data security is crucial ... customer and client information, payment information, personal files, bank account details ... all of this information is often impossible to replace if lost and dangerous in the hands of criminals... losing (your data) to hackers or malware infection can have far graver consequences."⁵³ Public entities should take advantage of this Guide in reviewing the current status of their own data system security.

When answering questions of respondents via email it was found that some already use cloud hosting for email.⁵⁴ During the interviews it was further uncovered that a school IT manager is considering additional cloud hosting of one or more of their applications. Cloud providers are able to provide layers of protection for a customer's network and software, as well as creating a segregation between their network and their customers. A cloud provider will patch and maintain current software versions, leverage security and malware and have a dedicated security team (24x7x365) that is responsible for staying on top of the security risks.⁵⁵

⁴⁹ Government Technology Magazine, Adam Stone, *The Weakest Link*, Oct/Nov 2018

⁵⁰ <https://searchnetworking.techtarget.com/tutorial/Protocols-Lesson-6-IP-subnetting-The-basic-concepts>

⁵¹ The County's Office of the Assessor-County Clerk-Recorder and Elections has already instituted 2-factor authentication. 2018-2019 Grand Jury Report – Security of Election Announcements.

⁵² Federal Communications Commission, *Cyber Security Planning Guide*
<https://transition.fcc.gov/cyber/cyberplanner.pdf> and FCC *Cyber Security Planner* (customizable)
<https://www.fcc.gov/cyberplanner>

⁵³ Ibid, page PDS-1

⁵⁴ eMails received from public domain accounts

⁵⁵ Government Technology Magazine, Adam Stone, *The Weakest Link*, Oct/Nov 2018

Conclusions

Grand Jury survey results and in-depth interviews determined that some local government agencies have Cybersecurity strategies in place. For them, this report is asking those IT departments to re-challenge the sufficiency of their employee training, the regular (full) testing of their defense strategies and the adequacy/age of their Cybersecurity strategy including consideration of cloud hosting. For the rest, this is a good time to complete a review and see what additional measures can be taken to beef up their IT security using the information provided in this report as a guide. The biggest trap is believing that a malware attack, or in the worst case a Ransomware attack, is unlikely to happen to organizations and that the Cybersecurity strategies already in place are sufficient to successfully recover.

As learned from the best practices example of the IT manager who thwarted two attacks successfully, a comprehensive Cybersecurity plan includes user prevention steps, spam and malware software, back-ups and full recovery testing. These suggestions as well as those from the professional literature on Cybersecurity include the following list of best practices:

- Anti-Malware definitions need to be constantly updated to retain their effectiveness.
- Software updates need to be kept current.
- To identify external emails, message rules can be used to flag external emails and thereby decrease the probability that a user clicks on bad content.
- To thwart phishing attempts, footers can be added to incoming emails to warn about opening attachments and clicking on links (see Appendix C).
- Security training, awareness and assessment need to be routine along with testing all employees to recognize, delete and report attempted attacks (See Appendix B).
- Establishing a thorough and comprehensive backup process for all Servers using the 3-2-1 rule and establishing a separate backup process for key users' critical folders (e.g., administration, accounting, human resources) to be able to restore/recover from a secure onsite and/or offsite backup.
- Snapshots and/or image backups provide the most complete backup and the fastest recovery option.
- Consider cloud-hosting of email and other applications to provide added security, backup & restore capabilities and filtering benefits to close the largest and easiest route for Ransomware to penetrate entity systems.

FINDINGS

- F1. Ransomware is a real and growing threat to public entities including those in San Mateo County.
- F2. Across the country, local governments and schools represent 12% of all Ransomware attacks.
- F3. The direct and indirect costs of Ransomware can be significant.
- F4. Cybersecurity reviews and assessments, and an updated, well-executed Cybersecurity plan, are critical components of IT security strategy.

- F5. A comprehensive Cybersecurity plan should include, at a minimum, information concerning prevention steps, spam and malware software, and backups and full recovery testing.
- F6. The identification of phishing attempts, including the use of spam filters, is an important component to protecting an IT system from Ransomware attacks.
- F7. Testing a full restore of a server to ensure that backups are reliable should be undertaken regularly as part an entity's backup plan to recover lost information.
- F8. Training of new employees, and the recurring training of existing employees, is an important component of defense against Ransomware.

RECOMMENDATIONS

The Grand Jury recommends that each governing body undertake its own confidential effort to protect against Ransomware attacks. Specifically:

- R1. Each of the governmental entities in San Mateo County with an IT department or IT function (whether in-house, handled by another government unit or outsourced to a private enterprise) as listed in Appendix F, should by November 30, 2020, make a request for a report from their IT organization that addresses the concerns identified in the report, specifically:
 - 1. System Security (Firewalls, Anti-malware/Antivirus software, use of subnets, strong password policies, updating/patching regularly)
 - 2. Backup & Recovery (In the event of an attack, can you shut down your system quickly? What is being backed up, how it is being backed up, when are backups run, and where are the backups being stored? Have backups been tested? Can you fully restore a Server from a backup?)
 - 3. Prevention (turning on email filtering, setting up message rules to warn users, providing employee training on phishing and providing a reporting system to flag suspect content)
- R2. These confidential internal reports should be provided to the governing body by June 30, 2021. This report should describe what actions have already been taken and which will be given timely consideration for future enhancements to the existing cybersecurity plan.
- R3. Given the results of their internal reports, governmental entities may choose to request further guidance by means of a Cybersecurity review from the U.S. Department of Homeland Security⁵⁶ and/or a cyber hygiene assessment from the County Controller's Office.⁵⁷

⁵⁶ <https://www.us-cert.gov/resources/assessments>

⁵⁷ 2018-2019 San Mateo Grand Jury Report – Security of Election Announcements

- R4. Given the results of their internal reports, governmental entities may choose to ask their IT departments to review their own Cybersecurity Plan with the detailed template provided by the FCC's Cybersecurity Planning Guide and consider customizing it using FCC's Create Custom Cybersecurity Planning Guide tool (see footnote 52).

METHODOLOGY

Documents

- Attack incident reports were requested from IT Departments who experienced attack(s). No incident reports were received.

Site Tours

- No site tours were performed as a part of this report.

Interviews

Reports issued by the Civil Grand Jury do not identify individuals interviewed. Penal Code Section 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Civil Grand Jury.

- Three Information Systems Managers of three different public entity IT organizations.
- Two non-public professional IT Managers. Both of these Managers' IT infrastructure environments had been infected with Ransomware attacks. One paid the ransom and the other did not.
- A professional Ransomware expert who often consults with companies who have been attacked or desire assistance preventing attacks. He also teaches classes on preparing for and preventing Ransomware attacks.
- Numerous security industry professionals at the RSA Conference held at Moscone Center in San Francisco between February 24th and 28th 2020.

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APPENDIX A – SURVEY QUESTIONS

1. Has your Organization had a Ransomware attack? Specifically, has there been an instance or multiple instances when an attack has locked up a computer or computers and presented a demand for ransom to unlock the infection?

If you answered Yes or Possibly to Question 1, please provide a detailed description of the attack. What actions were taken once the attack was realized?

2. Is your Information Systems Budget adequate to secure your network properly from malicious attack?
3. Please provide an explanation of your Systems Backup processes? How often are backups run, where do you store the Backups?
4. Have you ever had to Restore from Backups? Please describe in detail why you did the Restore and describe the process used.
5. Do you provide training to employees regarding Malware?
6. What defenses do you currently employ to block malware? Please be specific. (Firewall brand/model, Software filters/spam blocker, etc.)

APPENDIX B – EMPLOYEE TRAINING OPTIONS

Phishing is the primary method of entry in cyber-attacks worldwide. Over the past few years, some security industry companies have come up with excellent testing, training, monitoring, measuring and reporting solution to help with employee training. The primary goal of an employee training program is to change user's behavior when viewing emails that might contain threats.

The typical components of these solutions include:

- Customized phishing attacks designed to test employees in spotting attack attempts
- Provide users a simple to use reporting tool to flag suspected attacks
- An incidence response platform for controlling the spread of an attack
- Reporting dashboards tracking user click-throughs
- Employee training programs

Here are some website links for the companies offering training solutions.

www.knowbe4.com

www.lucysecurity.com

www.metacompliance.com

www.mediapro.com

www.cofense.com

www.elevatesecurity.com

www.securitymentor.com

www.habitu8.io

APPENDIX C – EMAIL MESSAGE RULE - EXTERNAL

Send	To...	Name Hidden
	Cc...	
Account ▾	Subject:	[EXTERNAL] Setup a Conference Call to review nest steps

CAUTION: EXTERNAL EMAIL. Verify before you click links or open attachments. Questions? Contact GIS.

APPENDIX D – BACKUP & RECOVERY APPLIANCES & SERVICES

There are a large number of companies that provide Backup and Recovery solutions. Solutions Review has prepared a buyer’s guide for the leading vendors. Click on the following link or copy and paste this URL into a browser to get your own copy of this guide.

<https://solutionsreview.com/backup-disaster-recovery/get-a-free-backup-and-disaster-recovery-buyers-guide/>

Specifically, some of the vendors in this report do not provide appliances, only virtual server support. Here is a partial list of appliance and solution vendors:

- www.unitrends.com
- www.barracuda.com
- www.carbonite.com
- www.commvault.com
- www.dellemc.com
- www.axcient.com
- www.cohesity.com
- www.datto.com
- www.infrascale.com

APPENDIX E – PHISHING DEFENSE VENDORS

Some companies that provide solutions that improve email defenses are:

- <https://www.opswat.com/products/metadefender/email-gateway-security>
- <https://www.agari.com/products/phishing-defense/>
- <https://www.inkv.com/anti-phishing-software>
- <https://www.mimecast.com/products/email-security-with-targeted-threat-protection/>

APPENDIX F: PUBLIC ENTITIES IN SAN MATEO COUNTY (68)

City/Town Governments (20)

Town of Atherton
 City of Belmont
 City of Brisbane
 City of Burlingame
 City of Colma
 City of Daly City
 City of East Palo Alto
 City of Foster City
 City of Half Moon Bay
 City of Hillsborough
 City of Menlo Park
 City of Millbrae
 City of Pacifica
 Town of Portola Valley
 City of Redwood City
 City of San Bruno
 City of San Carlos
 City of San Mateo
 City of South San Francisco
 Town of Woodside

County Government (1)

County of San Mateo, Information Services Department

School Districts (25)

Bayshore Elementary School District
 Belmont Redwood Shores School District
 Brisbane School District
 Burlingame School District
 Cabrillo Unified School District
 Hillsborough City School District
 Jefferson Elementary School District
 Jefferson Union High School District
 La Honda Pescadero School District
 Las Lomas Elementary School District
 Menlo Park City School District
 Millbrae School District
 Pacifica School District
 Portola Valley School District
 Ravenswood City School District
 Redwood City School District
 San Bruno Park School District
 San Carlos School District

San Mateo Foster City School District
 San Mateo Union High School District
 Sequoia Union High School District
 San Mateo County Community College School District
 San Mateo County Office of Education
 South San Francisco Unified School District
 Woodside School District

Independent Special Districts (22)

Bayshore Sanitary District
 Broadmoor Police Protection District
 Coastside County Water District
 Coastside Fire Protection District
 Colma Fire Protection District
 East Palo Alto Sanitary District
 Granada Community Services District
 Highlands Recreation District
 Ladera Recreation District
 Menlo Park Fire Protection District
 Mid Peninsula Regional Open Space District
 Mid-Peninsula Water District
 Montara Water and Sanitary District
 North Coast County Water District
 Peninsula Health Care District
 San Mateo County Harbor District
 San Mateo County Mosquito and Vector Control District
 San Mateo County Resource Conservation District
 Sequoia Healthcare
 West Bay Sanitary District
 Westborough Water District
 Woodside Fire Protection District

Not Included: County-governed special districts and subsidiary special districts governed by their respective city councils.

Issued: October 7, 2020

J.

File Attachments for Item:

J. Baylands Remediation Update and City Comments on Draft Feasibility Studies/Remedial Action Plans for Operable Unit San Mateo and Operable Unit 2



CITY COUNCIL AGENDA REPORT

Meeting Date: November 19, 2020

From: John Swiecki, Community Development Director

Subject: Baylands Remediation Update and City Comments on Draft Feasibility Studies/Remedial Action Plans for Operable Unit San Mateo and Operable Unit 2

Community Goal/Result

Safe Community - Residents and visitors will experience a sense of safety

Purpose

To provide the City Council with an update on the remediation process for the Baylands, including proposed City comments on the draft Feasibility Study/Remedial Action Plan (RAP) for Operable Unit San Mateo (OU-SM) and Operable Unit 2 (OU-2).

Recommendation

Receive this report and authorize the City Manager to submit comment letters on the draft FS/RAPs for OU-SM and OU-2 to address the issues noted in this Agenda Report and the memorandum prepared by the City's consultants included as Attachment 6.

Background

A key objective for the City of Brisbane (City) when considering future development activities within the Baylands is to protect the health and well-being of future residents, employees, and visitors. The City's commitment to this objective was reaffirmed and strengthened by the passage of Measure JJ, which established requirements for site remediation as well as post-remediation operations, maintenance, and monitoring to provide for the continued effectiveness of the implemented remedies over time.

While the City's goals and expectations are clearly identified in Measure JJ, the regulatory authority to approve remediation plans for the Baylands does not lie with the City, but instead with the Department of Toxic Substances Control (DTSC) and Regional Water Quality Control Board (RWQCB) which each regulate specific areas of the Baylands (Attachment 1). The DTSC has oversight over the northwestern portion of the Baylands (Operable Unit San Mateo or OU-SM) and RWQCB has oversight over the southwestern portion of the Baylands (Operable Unit-2 or OU-2); the former landfill portion of the Baylands (east of Caltrain) is under the jurisdiction of the RWQCB and San Mateo County Health Department.

The environmental remediation process followed by the DTSC and RWQCB involves the following steps:

1. **Site Evaluation** – The purpose of this phase is to collect pertinent information about the site to determine if there has been a release of hazardous substances that may pose a risk to human health and the environment. This phase typically identifies which chemicals are present at the site at levels of concern, evaluates potential exposure pathways, and assesses potential risks for human and ecological receptors.

2. **Remedy Selection** – The purpose of this phase is to identify remedial action objectives, applicable laws and regulations, and potential technologies that can be used to address impacts at the site. This phase of work also includes the preparation of a remedy selection document that summarizes the key components of the conceptual plan for site remediation. Upon regulatory agency approval of the selected remedy, the project proceeds to the next phase. As discussed further below, the remedy selection phase is the current phase for both OU-2 and OU-SM.

3. **Implementation** – This phase of work begins with the preparation of documents that provide details regarding the design and implementation of the selected remedy; these documents include both technical and operational plans as well as detailed plans for remedial activities. Upon regulatory agency approval of these plans, remedial activities may be implemented and on completion of these activities, a remedial action completion report that documents the work conducted is submitted to the regulatory agency for review and approval.

4. **Certification and Stewardship** – This phase of work begins following regulatory agency approval of the remedial action completion report and begins with documenting the long-term measures (i.e., inspections, testing, land use controls) required to confirm the effectiveness of the implemented remedial actions to control potential exposure to residual contamination at the site. Performance of the required inspections, operations, maintenance, and monitoring is documented through the submittal of reports (e.g., annual reports and/or five-year review reports) to the regulatory agency tasked with oversight of the site.

While the City does not have legal authority over site remediation, the City has been proactively engaged with the developer and state regulators to ensure that the City’s goals and expectations are understood and will be achieved.

Discussion

As noted above, the applicant has concluded the **Site Evaluation** phase of work for both OU-SM and OU-2 and is moving forward with **Remedy Selection** for these properties.¹ Specifically, a draft Feasibility Study/Remedial Action Plans for OU-2 and OU-SM have been released for public review and comment. The Draft FS/RAPs summarize the results of the **Site Evaluations**, identify and evaluate potential remediation strategies for each OU, and based on an evaluation of the Threshold and Balancing Criteria for each remediation strategy, recommend a preferred remediation strategy for each OU. The Executive Summaries for the Draft FS/RAPS are presented in Attachments 2 and 3 (for OU-2 and OU-SM, respectively) and the remediation strategies evaluated for each OU are summarized in Attachments 4 and 5 (for OU-2 and OU-SM, respectively).

At the end of the public comment periods, the DTSC and RWQCB will complete their review of the Draft FS/RAPs and public comments received on these documents and will prepare a formal response-to-comments.

¹ Before the environmental remediation process can commence for the eastern portion of the Baylands (i.e., the former landfill), the site must be closed in accordance with State of California Title 27 requirements. According to the applicant, closure plans for the eastern portion of the Baylands are currently being prepared.

City Comments

In recognition of the importance of providing for the protection of public health and compliance with the requirements of Measure JJ, the City and its consultant team have proactively engaged with both the regulators and applicant in the ongoing processes for both OU-SM and OU-2. Specific tasks undertaken by the City’s consultants included a review of historical technical data, data gap studies, and preliminary versions of the FS/RAPs for both OU-SM and OU-2.

The attached memorandum from Edgcomb Law Group (Attachment 6) summarizes the consultant’s work for the City and includes a discussion of the key issues identified in preliminary versions of the FS/RAPs. This review ultimately resulted in important changes to the Draft FS/RAPs that provide more information and ultimately are beneficial to the long-term protection of public health and safety. While many of the City’s concerns have been addressed by these changes, because specific details regarding the planned remedial activities were not provided in the Draft FS/RAPs (these will be addressed in the next phase of work), it will be necessary for the City to review and comment on future documents prepared by the applicant and work with the regulatory agencies to address the City’s potential concerns regarding the protectiveness of the remedial actions to be implemented and their compliance with the requirements of Measure JJ.

Therefore, it is recommended that the City provide formal comments for the Draft FS/RAPs for OU-2 and OU-SM to explicitly state that the City requests to remain engaged with the applicant and the regulatory agencies in the Implementation phase of the environmental remediation process and be provided the opportunity to review and comment on future regulatory agency submittals such as those identified in Attachment 6.

Fiscal Impact

None

Measure of Success

Ensuring that Baylands site remediation is protective of public health and complies with the requirements of Measure JJ.

Attachments

1. Baylands Remediation Areas
2. Executive Summary for the Draft FS/RAP for OU-2
3. Executive Summary for the Draft FS/RAP for OU-SM
4. Remedial Alternatives for OU-2
5. Remedial Alternatives for OU-SM
6. Edgcomb Law Group Memorandum, dated 11/4/2020

John Swiecki

John Swiecki, Community Development Director

Clayton L. Holstine

Clay Holstine, City Manager



EXECUTIVE SUMMARY

This Draft Feasibility Study/Remedial Action Plan (DRAFT FS/RAP) was prepared by Geosyntec Consultants, Inc. (Geosyntec) on behalf of Universal Paragon Corporation (UPC) to address soil, soil vapor, and groundwater contamination at the former Southern Pacific – Brisbane South Area site and Industrial Way Properties in Brisbane, California (the Site). The Site is part of a larger group of properties under environmental investigation/remediation that have been designated as operable units (OUs) under agreements with the California Department of Toxic Substances Control (DTSC) and the San Francisco Regional Water Quality Control Board (RWQCB). The Site is referred to as OU-2 and the RWQCB is the lead regulatory agency.

The Site is approximately 130 acres and occupies the southern portion of the former Southern Pacific Transportation Company (SPTC) Brisbane Railyard, which was used as a railroad switching yard from approximately 1907 to 1982 [Lipps, 2013]. After 1982, the railyard was unused. In 1989, Tuntex, USA (now known as UPC) purchased the property. The Site also includes properties along Industrial Way which have been occupied by various commercial/industrial tenants over the last approximately 100 years. The Site is included as a portion of a larger mixed-use development project known as the Brisbane Baylands Development, which will include housing, commercial businesses, civic uses, and public open space. UPC is the master developer for OU-2.

Numerous environmental investigations have been conducted at the Site since 1982 to characterize the presence, nature, and extent of contaminants resulting from historical operations. Investigations have identified metals (primarily arsenic, lead, and mercury); polynuclear aromatic hydrocarbons (PAHs); organochlorine pesticides (OCPs); polychlorinated biphenyls (PCBs); chlorinated volatile organic compounds (CVOCs); and petroleum hydrocarbons, including Bunker C oil, gasoline-range hydrocarbons (TPH-g), diesel-range hydrocarbons (TPH-d), and motor oil-range hydrocarbons (TPH-mo) as chemicals of potential concern (COPCs).

Site remediation completed to date includes the removal of underground storage tanks (USTs) and the safe removal of hydrocarbon-impacted soil associated with the USTs adjacent to Industrial Way.

A Baseline Health Risk Assessment (HRA) for the Site was conducted for the COPCs that were identified during the investigations conducted at the Site. The HRA was prepared under the conservative assumption that no remediation or mitigation would be implemented. The HRA used this assumption to evaluate potential risks to current and future populations that could be exposed to COPCs at the Site under different land use scenarios. The results of the HRA found that present conditions are protective for current Site users, but under different scenarios, future commercial/industrial workers, construction workers, and residents could be at risk if remediation were not conducted. The HRA concluded that action to remediate or mitigate potential exposure to COPCs in soil and soil vapor is warranted to protect future users under a high intensity, mixed-use redevelopment scenario.

The HRA was used as the basis to establish Remedial Action Objectives (RAOs) for the Site. RAOs are site-specific, quantitative goals that define the extent of cleanup required to achieve the

appropriate level of protectiveness for human health and the environment. The RAOs for the Site include:

- Soil – Prevent exposure to soil with COPCs at concentrations exceeding cleanup levels (CULs) by eliminating the exposure pathway for future Site users including the incidental ingestion, inhalation of windblown dust particles, and dermal contact exposure pathways.
- Soil Vapor – Prevent exposure to volatile organic compounds (VOCs) in soil vapor at concentrations that exceed the CULs for soil vapor by blocking or minimizing the vapor intrusion pathway;
- Groundwater – Prevent exposure to VOCs in groundwater by eliminating inhalation risks through the vapor intrusion pathway, preventing ingestion and dermal contact through the use of groundwater for potable and agricultural purposes.

To identify the most appropriate remedy for achieving the RAOs for the Site, four remedial alternatives were developed and analyzed in detail pursuant to the nine criteria of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the six criteria of Section 25356.1 of the California Health and Safety Code (HSC). A comparative analysis of the alternatives identified the advantages and disadvantages of each alternative when compared to other alternatives. Redevelopment activities that would serve to eliminate pathways of exposure for future Site users (e.g., the placement of up to 30 feet of fill over existing soils) were integrated into the remedial technology screening and development of remedial alternatives.

Based on the evaluation and comparison of the four alternatives, Alternative 3 was identified as the preferred remedial alternative for implementation at the Site. Alternative 3 includes capping of impacted soils, excavation with partial offsite disposal and partial onsite relocation, and land use controls. More specifically, this alternative includes:

- Capping of soil in portions of the Site that contain COPCs at concentrations exceeding CULs. Capping includes placement of clean soil, building foundations, roads, parking pavement, or other hardscape over the existing or future land surface;
- Excavation of soil in portions of the Site that contains COPCs at concentrations exceeding CULs and where capping is not possible. Some excavated soil will be off-hauled and disposed of offsite and some soil will be relocated onsite and capped. As an option to excavation, onsite treatment and reuse of soil containing potentially mobile petroleum hydrocarbons may be conducted;
- Treatment of CVOC-impacted groundwater and post-remediation groundwater monitoring;
- Land use controls consisting of the following components:
 - Soil vapor mitigation systems as part of future building construction, if required based on a soil vapor intrusion evaluation that will be conducted after mass grading and prior to building construction. This evaluation will consist of a multiple lines of evidence approach, including estimating the time that future soil vapor

concentrations will reach steady state at different depths in the imported soil by the method of Johnson et al. [1999] and field testing to establish a depth-specific soil vapor profile. The evaluation will be conducted in accordance with current RWQCB soil vapor guidance. The detailed evaluation will be specified in the Remedial Design and Implementation Plan (RDIP);

- Land use restrictions including administrative actions and engineered actions;
- Ongoing operation and maintenance of caps and any engineered systems such as soil vapor mitigation systems.

After approval of the FS/RAP by the RWQCB, UPC will submit for RWQCB review and approval one or more RDIPs. Following completion of remediation activities, which may be completed in phases, UPC will submit to RWQCB one or more Remedial Action Completion Reports documenting the implementation of remediation activities and noting any deviations from the approved plan(s). The completion report(s) will include a post-remediation risk assessment that will evaluate the overall effectiveness of the remediation. The completion reports will also provide the technical basis for any mitigation measures (such as soil vapor mitigation systems) to ensure the long-term protection of human health. Soil vapor assessment and vapor mitigation design and implementation will occur prior to and as part of building construction and will also be conducted with oversight by the RWQCB.

EXECUTIVE SUMMARY

This Draft Feasibility Study/Remedial Action Plan (FS/RAP) was prepared by Geosyntec Consultants on behalf of Universal Paragon Corporation, Inc. (UPC) to address soil, soil vapor, and groundwater contamination at the former Southern Pacific – Brisbane North Area site at Geneva Avenue and Bayshore Boulevard in Brisbane, California (Site). The Site is part of a larger group of properties under environmental investigation/remediation that have been designated as operable units (OUs) under agreements with the California Department of Toxic Substances Control (DTSC) and the San Francisco Bay Regional Water Quality Control Board. The Site is known as UPC OU-SM as it is located in San Mateo County.

The Site is approximately 35 acres in size and occupies the northern portion of the former Southern Pacific Transportation Company Brisbane Railyard, which was used as a railroad switching yard from 1911 to 1982 [Lipps, 2013]. After 1982 the Site was unused. In 1989, Tuntex, USA (now known as UPC) purchased the property. The Site is currently vacant with various foundations and building slabs remaining. It is included as a portion of a larger mixed-use development project known as the Brisbane Baylands Development, which will include housing, commercial businesses, civic uses, and public open space. UPC has been designated as the master developer.

Numerous environmental investigations have been conducted at the Site since 1984 to characterize the distribution of contaminants resulting from historical railroad operations and a contaminant plume from the adjacent Schlage Lock site (Schlage OU). Investigations have identified the presence of metals (primarily arsenic, lead, and mercury), polynuclear aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), chlorinated volatile organic compounds (CVOCs), and petroleum hydrocarbons, including gasoline-range hydrocarbons (TPH-g) and diesel-range hydrocarbons (TPH-d).

Site remediation completed to date includes the safe removal of hydrocarbon-impacted soil from the northwest portion of the Site. In addition, a groundwater extraction and treatment system operated in the northern portion of the Site from 1995 to 2008 to address CVOC contaminants that had migrated from the Schlage OU. Currently, the contaminated groundwater is being addressed as documented in the Schlage OU FS/RAP [MACTEC, 2009]. Remedial action at the Schlage OU was certified by DTSC in 2014 and operation and maintenance is ongoing [DTSC, 2014]. Because the CVOC groundwater plume at the Site is sourced from, and is the responsibility of the Schlage OU, any additional remediation or mitigation of CVOCs in groundwater implemented at the UPC OU-SM Site will be conducted under the Schlage OU FS/RAP. Impacts to soil vapor on the UPC OU-SM Site that result from the residual CVOCs in groundwater from the Schlage OU will be addressed in the remedial design phase and mitigated at the time occupied buildings are constructed, if necessary.

A Baseline Health Risk Assessment (HRA) for the Site was prepared under the assumption that no remediation or mitigation would be implemented. Using this assumption, the HRA evaluated potential risks to current and future populations that could be exposed to chemicals at the Site so that measures could be implemented to address risks appropriately. The results of the HRA found that present Site conditions are protective for current populations (i.e., site visitors, commercial/industrial workers at neighboring facilities, and residents of adjacent neighborhoods) but future action to remediate or mitigate potential exposure to chemicals of concern (COCs) in

soil and soil vapor are warranted to protect future commercial/industrial workers, construction workers, and residents at the Site under a high intensity, mixed-use redevelopment scenario.

For the Site, five remedial alternatives were subjected to a detailed alternatives analysis pursuant to the nine criteria of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the six criteria of Section 25356.1 of the California Health and Safety Code (HSC). A comparative analysis was also completed that identified the advantages and disadvantages of each alternative when compared to other alternatives. Redevelopment activities that would serve to eliminate pathways to exposure for future Site receptors (e.g., the placement of up to 30 feet of fill over existing soils that minimizes direct exposure to impacted media) were integrated into the remedial technology screening and development of remedial alternatives.

Based on the evaluation and comparison of the five alternatives, Alternative 3: Land Use Restrictions, Excavation with Partial Off-Site Disposal and Partial On-Site Relocation, and Capping for Soils, is the preferred remedial alternative identified for implementation at the Site. This alternative includes:

- Capping of soil that contains COCs at concentrations exceeding cleanup levels in areas where significant fill (i.e., greater than 5 feet of fill) or other capping (e.g., foundations, roads) will be placed over existing soil;
- Excavation, partial off-haul and disposal, and partial relocation and capping of impacted soil that contains COCs at concentrations exceeding cleanup levels in areas that will not be filled (capped);
- Soil vapor mitigation systems as part of future building construction, if required based on subsequent soil vapor testing and Site-specific risk assessment after remediation is completed;
- Land use restrictions including administrative actions and engineered actions; and
- Ongoing operation and maintenance of caps and any engineered systems such as soil vapor mitigation systems.

After approval of the FS/RAP by DTSC, UPC will submit for DTSC review and approval one or more Remedial Design and Implementation Plans. Following completion of remediation activities, UPC will submit to DTSC a Remedial Action Completion Report documenting the implementation of remediation activities and noting any deviations from the approved plan. The completion report will include a post-remediation risk assessment that will evaluate the overall effectiveness of the remediation and will provide the technical basis for any mitigation measures (such as soil vapor mitigation systems) plus an operation and maintenance plan and a soil management plan to ensure the long-term protection of human health and the environment.

6. FEASIBILITY STUDY AND ALTERNATIVES ANALYSIS

This section presents: (1) the remedial technology screening matrix based on contaminated media, risk-based cleanup levels, and rough development grading requirements; (2) the criteria used to develop and evaluate remedial technologies; (3) the development of remedial action alternatives based on the screening and evaluation; and (4) assessment of remedial alternatives developed for OU-2 and rationale for selection of the preferred remedial approach.

6.1 Remedial Technology Screening

This section outlines the range of general response actions to address contamination at the Site and corresponding remedial technologies that are potentially applicable for the contaminated soil, soil vapor, and groundwater at the Site.

6.1.1 General Response Actions

A range of general response actions (GRAs), for which corresponding remedial technologies may be applicable to Site conditions, was identified for OU-2 for initial baseline evaluation and comparison purposes under RAP Guidance in Section 6.1.2. The GRAs considered for the Site include: no action, institutional controls, engineering controls, containment, ex situ treatment, in situ treatment, and excavation/disposal. Remedial technologies that correspond to the GRAs were then evaluated and compared based on three criteria: (1) effectiveness; (2) implementability; and (3) relative costs.

To refine the range of remedial technologies that would potentially be developed into remedial alternatives for the Site that must undergo detailed analysis, the NCP at 40 CFR §300.430(e)(7) provides the opportunity to initially screen them against the short- and long-term aspects of the following three criteria:

- **Effectiveness:** Alternatives are judged on the degree to which an alternative reduces toxicity, mobility, or volume through treatment, minimizes residual risks and affords long-term protection, complies with ARARs, and minimizes short-term impacts, and how quickly it achieves protection. Alternatives providing significantly less effectiveness than other, more promising alternatives may be eliminated. Alternatives that do not provide adequate protection of human health and the environment shall be eliminated from further consideration.
- **Implementability:** This criterion focuses on the technical feasibility and availability of the technologies each alternative would employ, and the administrative feasibility of implementing the alternative. Alternatives that are technically or administratively infeasible, or require equipment, specialists, or facilities that are not available within a reasonable period of time may be eliminated from further consideration.
- **Cost:** Costs of construction and any long-term costs to operate and maintain the alternatives shall be considered. Costs that are grossly excessive compared to the overall effectiveness of alternatives may be used as a factor to exclude alternatives from further consideration. Alternatives providing effectiveness and implementability

comparable to that of another alternative by employing a similar method of treatment or engineering control, but at greater cost, may also be eliminated.

6.1.2 Remedial Technology Screening

This section describes the screening and selection of the range of remedial technologies that are potentially applicable for the contaminated soil, soil vapor, and groundwater at the Site. The Remedial Technology Screening Matrix presented in **Table 11** was used to guide whether a technology should be retained for further consideration based on the nature and extent of the current levels of contamination at the Site.

Land use restrictions (administrative/institutional mechanisms) would be included as components of the remedial action alternatives developed based on the remedial technology screening. These controls may be applicable both within the short term (e.g., to prevent reuse of groundwater or select vapor intrusion mitigation measures where there is significant risk or other controls until applicable CULs are achieved), and in the long term to: (1) maintain the reuses consistent with the risk exposures assumed in the development of CULs (or Site-specific CULs) for the preferred remedial actions; and (2) prevent unrestricted reuses of areas where residual contamination may remain.

The following technologies retained from the screening were then incorporated in the development of remedial action alternatives described in Section 6.2:

- Institutional Controls (administrative/institutional mechanisms) for Soil, Soil Vapor, and Groundwater – Restrictions limiting Site uses, such as limitations on use of groundwater without prior RWQCB approval, and adoption of land use restrictions (e.g., administrative controls and/or engineering controls) to ensure, for example, that occupied structures are protective of future site users and that engineering controls are monitored and maintained for the long-term protection of future site uses;
- Capping (containment) for Soils – Capping of existing Site soil using hardscape materials or a specified thickness of clean soil to ensure the protection of future Site users by eliminating direct contact exposure pathways to impacted soil;
- Excavation for Soils – Where development requires excavation or existing soil cannot be capped, excavation of soil exceeding CULs and offsite disposal, onsite ex situ treatment (see below) and/or excavation and relocation beneath a cap to eliminate direct contact exposure pathways and, in the case of offsite disposal, to reduce the amount of contaminant mass at the Site;
- Onsite Ex Situ Treatment for Soils – Ex situ smoldering to treat soils impacted with potentially mobile petroleum hydrocarbons, allowing for onsite reuse of treated soil;
- In Situ Treatment for Groundwater – Biological and/or chemical treatment to reduce the mass of residual CVOCs in groundwater with groundwater monitoring to evaluate effectiveness; and

- Monitored Natural Attenuation for Groundwater – Continued monitoring of the natural attenuation of VOCs in groundwater by sorption, dilution, biological transformation, and chemical reaction.

6.2 Remedial Alternatives Development and Evaluation

6.2.1 Description of Evaluation Criteria

The above technologies were assembled into four remedial alternatives which were subjected to: (1) a detailed alternative analysis pursuant to the nine criteria of the NCP and the six criteria of Section 25356.1 of the California HSC; and (2) comparative analysis identifying the advantages and disadvantages of each alternative when compared to other alternatives considered for the Site.

The nine NCP criteria include two threshold, five balancing, and two modifying criteria. For a remedial alternative to be considered an appropriate remedial action, it must meet both threshold criteria.

Balancing criteria provide an opportunity to identify and evaluate strengths, weaknesses, and the cost-effectiveness of an alternative. Modifying criteria are evaluated after the public comment period.

This section introduces these criteria. Summaries of the comparative evaluations of alternatives for the remedial action areas included in this DRAFT FS/RAP are presented in Section 6.4.

The California HSC requires that the remedial alternatives be evaluated relative to the following six additional criteria:

1. Health and safety risks posed by the Site conditions;
2. The effect of COCs present on probable present and future uses of contaminated or threatened resources;
3. The effect on available groundwater resources for present, future, and probable beneficial uses (treatment alternatives that reduce the volume, toxicity, and mobility of contaminants as opposed to alternatives that use offsite transport and disposal are preferred);
4. Site-specific conditions (potential for offsite migration) and existing contaminant background levels;
5. Cost-effectiveness, considering the short-term and long-term costs of the remedial action and whether deferral of a remedial action could result in a cost increase or hazard increase to human health or the environment; and
6. The potential environmental impacts of the remedial alternative such as land disposal of contaminated material versus treatment to remove or reduce its volume, toxicity, or mobility prior to disposal.

The six California HSC criteria are similar to and covered under the nine NCP criteria in this DRAFT FS/RAP described below.

Threshold Criteria

Overall Protection of Human Health and the Environment – Addresses whether a remedy provides adequate protection and describes how risks posed through each exposure pathway are eliminated, reduced, or controlled through treatment, engineering controls, or land use restrictions (i.e., administrative/institutional controls).

Compliance with ARARs – Addresses whether a remedy will meet all appropriate federal, state, and local environmental laws and regulations.

Balancing Criteria

Long-Term Effectiveness and Permanence – Considers the ability of a remedy to provide reliable protection of human health and the environment over time once cleanup goals have been achieved.

Reduction of Toxicity, Mobility, and Volume Through Treatment – Evaluates the anticipated performance of the alternative with respect to the reduction of toxicity, mobility, and volume of contaminants. This criterion reflects the preference for treatment of contaminated soil and groundwater as opposed to offsite transport and disposal.

Short-term Effectiveness – Evaluates the period of time needed to complete the remedy, and any adverse impact on human health and the environment that may be posed during the construction and implementation period, until cleanup standards are achieved. Potential impacts during construction include construction worker exposure to Site COCs, offsite dust migration, offsite stormwater and sediment migration, air pollution, and noise.

Implementability – Refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a remedial option.

Cost – Evaluates the capital and O&M costs of each alternative for 30 years. Cost estimates of this type are considered accurate to a range of minus 30% to plus 50%. The reasons for this range are the variability of construction materials, variability in construction costs over time, the complexity of developing Site-specific cost factors, and the sensitivity of construction costs to economic factors such as interest rates and materials costs. All remediation costs are the responsibility of the Site owner or building owners.

Modifying Criteria

These criteria will be addressed during the public review and comment period on this DRAFT FS/RAP and will be summarized in the Responsiveness Summary to this DRAFT FS/RAP.

Regulatory Agency Acceptance – Indicates whether, based on their review of the information, the applicable regulatory agencies would agree with the preferred alternative.

Community Acceptance – The DRAFT FS/RAP is subject to public review and comment prior to selection of the remedial action alternative. This criterion assesses whether community concerns are addressed by the remedy, and whether the community prefers a remedy. The final remedies in this DRAFT FS/RAP will be selected following the public comment period.

6.3 Description of Remedial Action Alternatives

This section describes the remedial action alternatives that were developed based on assembly of the following applicable remedial technologies that passed the initial screening:

<p>Land Use Restrictions</p> <p>-- Land Use Covenant documenting the following prohibitions and requirements:</p> <ul style="list-style-type: none"> • No occupied buildings, including sensitive uses, where COC concentrations in soil vapor exceed CULs without RWQCB approval based on either (1) a risk assessment demonstrating Site soil vapor conditions pose no significant risk to human health based on a site-specific assessment; or (2) engineering controls, such as building design or vapor intrusion mitigation systems, that will reduce the risk of vapor intrusion to a protective level; • No growing produce or vegetables for human consumption in native soil. Plants for human consumption may be grown if they are planted in raised beds (above the approved cover) containing non-native soil. Trees producing edible fruit (including trees producing edible nuts) may also be planted provided they are grown in containers with a bottom that prevents the roots from penetrating the native soil; • No extraction or use of underlying groundwater is allowed without a Groundwater Management Plan pre-approved by RWQCB; • No drilling for any water, oil, or gas, or extraction or removal of groundwater without a RWQCB-approved Groundwater Management Plan and prior written approval by RWQCB; • No interference with, or modification of, a vapor mitigation system shall be permitted without prior written approval by RWQCB, and future tenants must provide reasonable access for O&M of vapor mitigation systems; • All excavation into the cap shall comply with the RWQCB-approved Soil Management Plan (SMP); • Contaminated soils brought to the surface by grading, excavation, trenching or backfilling shall be managed in accordance with all applicable provisions of state and federal law and a pre-approved RWQCB SMP; • All uses and development of the Site shall preserve the integrity and effectiveness of the cap; and • O&M Plan to maintain capped surfaces and operate vapor intrusion mitigation systems, if applicable.
<p>Engineering Controls</p> <p>-- Vapor intrusion mitigation systems or intrinsically safe building design for mitigating vapor intrusion into indoor air by VOCs in soil vapor;</p> <p>-- Sub-slab venting.</p>
<p>Capping</p> <p>-- Soil cover meeting soil import criteria for the Site with a minimum 5-foot thickness and an underlying demarcation layer; or</p> <p>-- Hardscape consisting of concrete, asphalt, masonry or other durable, impervious surface; and</p> <p>-- Building foundations.</p>
<p>Excavation</p> <p>-- Where capping in place is not possible, soil exceeding CULs will be excavated to a depth of 5 feet, relocated onsite, and capped with a soil cover, hardscape, or building foundation;</p> <p>-- Onsite treatment to satisfaction of soil import criteria and placement onsite;</p> <p>-- Offsite disposal of excavated soil at a licensed and approved waste management facility.</p>
<p>Onsite Ex Situ Soil Treatment</p> <p>-- Thermal/Smoldering to treat TPH in soil.</p>
<p>In Situ Groundwater Treatment</p> <p>-- Biological and/or chemical treatment of CVOCs.</p>

Monitored Natural Attenuation

-- Groundwater monitoring to ensure COC concentrations decrease to CULs over time by natural processes including biodegradation, dispersion, and adsorption to soil.

The following Site-wide remedial action alternatives were developed based on the screening of remedial technologies presented in Section 6.1.2 and summarized in Table 11:

- Alternative 1: No Action;
- Alternative 2: Land Use Restrictions / Engineering Controls for Vapor Intrusion Mitigation / Monitored Natural Attenuation;
- Alternative 3: Land Use Restrictions / Engineering Controls for Vapor Intrusion Mitigation / Soil Capping / Excavation with Relocation and Containment / Excavation with Offsite Disposal / In Situ Groundwater Treatment and Monitoring; and
- Alternative 4: Land Use Restrictions / Engineering Controls for Vapor Intrusion Mitigation / Complete Excavation with Offsite Disposal and Restoration to Original Grade / In Situ Groundwater Treatment and Monitoring.

The alternatives are described below and comparatively evaluated in Section 6.4 based on the criteria presented in Section 6.2.

6.3.1 Alternative 1 — No Action

No additional control or protection of human health and the environment would be implemented for the contamination present at the Site. This alternative is required as a baseline alternative for comparison to other alternatives under RAP Guidance. There is negligible cost associated with administrative activities for this alternative.

6.3.2 Alternative 2 — Land Use Restrictions / Engineering Controls for Vapor Intrusion Mitigation / Monitored Natural Attenuation

This alternative assumes no active remediation would be implemented and risk exposures at the Site would be managed through land use and activity restrictions and engineering controls, which are described as follows:

Land Use Restrictions: Land use restrictions would be imposed to restrict certain land uses and activities and to require implementation and maintenance of engineering controls. The land use restrictions would prohibit the extraction or use of Fill groundwater for domestic and agricultural purposes without prior approval of the RWQCB. The land use restrictions would also require preparation and implementation of a Soil Management Plan approved by the RWQCB prior to excavation of soil. In areas where VOCs in soil vapor exceed CULs, vapor barriers and/or sub-slab venting systems would be incorporated into the designs of the buildings.

Engineering Controls: Engineering controls would be implemented to control dust emissions and stormwater runoff during construction and to mitigate intrusion of VOC vapors from the groundwater and soil into occupied buildings where needed. For costing purposes, monitoring of

engineering controls to verify the vapor intrusion risk has been mitigated would be conducted for 30 years following construction.

Monitored Natural Attenuation: A groundwater monitoring program would be implemented to verify that natural attenuation of VOCs is occurring and concentrations of COCs in groundwater are decreasing over time.

A deed restriction would be recorded on the title to the property to document that Land Use Restrictions and engineering controls must remain in place to prevent human exposures to contaminants left in place in soil and groundwater above levels considered protective of unrestricted use of the Site, as described in Section 7.8.

The total estimated cost of this alternative is approximately \$8.1 million, which includes capital costs of \$1.2 million and O&M costs of \$6.9 million over 30 years (**Appendix E**).

6.3.3 Alternative 3 — Land Use Restrictions / Engineering Controls for Vapor Intrusion Mitigation / Soil Capping / Excavation with Relocation and/or Offsite Disposal / In Situ Groundwater Treatment and Monitoring / Optional Ex Situ Soil Treatment

This alternative consists of the land use restrictions, engineering controls, and groundwater monitoring as described in Alternative 2 and, additionally, includes soil capping, excavation with relocation or offsite disposal, groundwater treatment, and a contingency for treating soil onsite. These additional elements are shown in **Figure 18** and summarized below:

Soil Capping: All exposed soil with residual COC concentrations above CULs at the Site would be capped with a minimum of 5 feet of imported clean fill (i.e., approximately 1,240,000 bulk cubic yards) or other hardscape material. Although not all soil exceeds CULs for unrestricted use, this alternative proposes to cap the entire Site. As described in the project description (Section 1.4), a significant amount of soil will be imported to the Site and placed as fill to raise the grade a minimum of 5 feet as part of site mitigation. In places, the ground elevation will be raised substantially as part of Site development. To meet the remedial action objectives of this Alternative 3 (i.e., to ensure the protection of future Site users by breaking the direct exposure pathway to impacted soil), the surface shall be capped with either hardscape material or the uppermost 5 feet of fill soil shall be composed of clean, imported soil. Soil imported as fill will meet the import criteria provided in **Appendix F**. Import soil criteria for capping purposes are consistent with, and in the case of arsenic more conservative than, the residential soil CULs in Section 4.2.1. A demarcation layer would be placed beneath the 5-foot thick soil cap to demarcate the transition between the clean soil cap and the underlying soil. A conceptual cross-section depicting the development is provided as **Figure 19**.

Soil in the western portion of the Site adjacent to Bayshore Boulevard with COCs that exceed health risk criteria will either be capped by hardscape (e.g., building foundations, paved areas) or excavated for onsite relocation beneath a clean soil cap or hardscape, offsite disposal, or onsite treatment and reuse or disposal. The excavations would be backfilled with clean soil so the thickness of clean soil is at least 5 feet over any residual soil with COC concentrations exceeding CULs.

Soil imported from offsite sources will be managed in accordance with a soil import plan to verify that it meets the soil use criteria for capping or other fill purposes. The soil import plan will be incorporated into a future RDIP.

Excavation with Relocation and Capping or Off-haul: Soil with COC concentrations exceeding CULs will be excavated and relocated onsite, treated, or transported offsite for disposal if capping is not appropriate or if capping is not possible due to the grading plan. For example, capping of soils within the CVOC-impacted area in Investigation Zones 4 and 6 would not address the vapor intrusion risk posed by the elevated concentrations of CVOCs in soil, so it is anticipated that this area will be excavated and disposed offsite unless treated. Based on available data, the excavation footprint within the CVOC-impacted area would be approximately 90 feet by 90 feet with a depth of 10 feet (i.e., approximately 3,000 bank cubic yards and assuming a 1.2 bulking factor). Other soil that may be excavated and disposed offsite includes PCB-contaminated soil, soil that is geotechnically unsuitable to support building foundations, or soil that exhibits strong visual and olfactory characteristics that are not desirable for the future development. For costing purposes, it was estimated that 10,000 bank cubic yards (i.e., 12,000 bulk cubic yards assuming a bulking factor of 1.2) of excavated soil would be transported offsite for disposal, with 80% (i.e., 9,600 bulk cubic yards) disposed as non-hazardous waste at the Class II facility in Altamont, California, and 20% (i.e., 2,400 bulk cubic yards) disposed as non-RCRA hazardous waste at the Class I facility in Buttonwillow, California. Other permitted disposal facilities may be used if appropriate. The off-haul volume of 12,000 bulk cubic yards corresponds to 1,000 truckloads of 12 cubic yards per load. Assuming an off-haul rate of 21 loads per day, off-haul would occur over approximately 48 days. Excavation and relocation/off-haul details will be specified in the RDIP.

Other impacted soil that could not be capped in place may be excavated and managed onsite, such as the area of the Site adjacent to Bayshore Boulevard where the Site grade cannot be abruptly raised by 5 feet or more. The Site boundary along Bayshore Boulevard is approximately 4,000 feet long. Assuming an average 10% incline, the ground surface elevation will rise by 5 feet at a distance of 50 feet east of Bayshore Boulevard. Within this 4,000 feet by 50 feet area, any existing soil with COCs that exceed the CULs and that will not be covered by hardscape will need to be excavated and backfilled. Assuming half of the area will be covered by hardscape and the other half will be excavated and backfilled, the area subject to excavation would be approximately 100,000 square feet. Further assuming a linear incline from 0 feet to 5 feet, the average thickness of clean fill within the excavation area would be 2.5 feet. Thus, to create a 5-foot-thick column of clean soil atop existing Site soil, the average excavation depth in this area would be 2.5 feet (i.e., the excavation depth is 0 feet where the thickness of clean fill is 5 feet, and the excavation depth is 5 feet where the thickness of clean fill is 0 feet). An excavation with area 100,000 square feet and thickness 2.5 feet has a volume of 250,000 cubic feet, or approximately 9,300 bank cubic yards.

For costing purposes, it was assumed that 10,000 bank cubic yards (12,000 bulk cubic yards) of excavated soil would be relocated onsite and appropriately capped with a clean soil cover, hardscape, or a building foundation. Details of excavation and relocation will be specified in a soil excavation and relocation RDIP.

Groundwater Treatment: Groundwater within the proposed treatment zone identified in **Figure 18** would be treated in situ using biological and/or chemical technologies (i.e., enhanced

biological reduction, in situ chemical oxidation, and/or in situ chemical reduction). It is assumed that there will be two rounds of in situ treatment and that the cost for the second round will be approximately half the cost of the first round. Long term groundwater monitoring would also be performed to verify the effectiveness of the remedy. Details of the groundwater remedy and monitoring will be provided in the RDIP.

Soil Treatment (Optional): The Revised RAP [B&M, 2002a] concluded that weathered Bunker C oil is effectively immobile in soil at typical Site temperatures. However, the potential for mobilization of weathered Bunker C oil in the Fill zone under the loads anticipated for soil capping and development cannot be evaluated in the absence of a specific site development plan. A pre-design petroleum mobility evaluation will be conducted to determine whether consolidation of the Fill zone will mobilize weathered Bunker C oil. A pre-design work plan will be provided to the RWQCB in advance of the evaluation and the results will be included in one or more RDIPs. If capping and site development is not appropriate, then as a contingency for limited application, onsite ex situ treatment of TPH-impacted soils using a thermal/smoldering technology may be implemented for treating soil containing potentially mobile Bunker C oil. For costing purposes, it was estimated that 12,000 bulk cubic yards of soil will be excavated, treated, and reused onsite.

The total estimated cost of this alternative without soil treatment is approximately \$40.2 million, which includes capital costs of \$33.3 million and O&M costs of \$6.9 million over 30 years (**Appendix E**). If optional soil treatment is included, the cost for this alternative is \$43.3 million, which includes capital costs of \$36.4 million and O&M costs of \$6.9 million over 30 years.

6.3.4 Alternative 4 – Land Use Restrictions, Engineering Controls for Vapor Intrusion Mitigation, Complete Excavation with Offsite Disposal and Restoration to Original Grade, and In Situ Groundwater Treatment and Monitoring

In this alternative, all soil with COC concentrations exceeding CULs would be excavated to the depth of either the top of a sample with all COC concentrations below screening levels or the maximum depth to groundwater, approximately 14 feet below ground surface. The estimated excavation depths across the Site are shown in **Figure 20**. All excavated soil would be transported offsite for disposal at a permitted waste management facility. For the cost estimate, it was assumed that 80% of the soil would be transported to the Class II facility in Altamont, California, and 20% of the soil would be transported to the Class I facility in Buttonwillow, California. Other approved disposal facilities may be used if appropriate. The off-haul volume of 694,000 bank cubic yards (833,069 bulk cubic yards, assuming a bulking factor of 1.2) corresponds to 69,400 truckloads of 12 cubic yards per load. Assuming a haul rate of 21 truckloads per day for six days per week, off-haul would occur over approximately 10.5 years. Following excavation, clean fill would be imported to the Site and placed in the excavations to bring the ground surface back to the existing grade. Imported soil would be placed and compacted to accommodate additional fill loads and building loads.

As in Alternative 3, groundwater within the proposed treatment zone identified in **Figure 18** would be treated in situ using biological and/or chemical technologies. It is assumed that there will be two rounds of in situ treatment and that the cost for the second round will be approximately half the cost of the first round. Long-term groundwater monitoring would also be performed to verify

the effectiveness of the remedy. Details of the groundwater remedy and monitoring will be provided in the RDIP.

Soil vapor sampling will be conducted after regrading and prior to commencing vertical construction. If warranted by the soil vapor sample results, vapor intrusion mitigation will be included in future building construction and applicable land use restrictions will be implemented.

The total estimated cost associated with implementation of this alternative is approximately \$201.5 million which includes capital costs of \$194.6 million, and O&M costs of \$6.9 million over 30 years (**Appendix E**).

6.4 Summary Evaluation and Comparative Analysis of Remedial Action Alternatives

The four remedial alternatives identified in Section 6.3 were assessed using seven of the nine NCP criteria for CERCLA sites established by USEPA [1989c] and additional California HSC criteria, as introduced in Section 6.2. The remaining two of the nine NCP “to be considered” criteria will be assessed after the DRAFT FS/RAP has been made available for public comment. A summary of the alternative evaluation and comparison is presented below.

For the evaluation of remedial alternatives, it was assumed that regrading will be completed in anticipation of redevelopment under all remedial alternatives. Regrading for redevelopment assumes soil will be imported to the Site to raise the grade according to the development plan. Thus, under all remedial alternatives, development activities will result in portions of the Site being covered with clean import soil and/or covered by hardscape. Only under remedial alternatives specifying soil capping will soil containing COCs at concentrations exceeding CULs be deliberately covered by a minimum 5-foot thick cap of clean soil and/or hardscape.

6.4.1 Threshold Criteria

Overall Protection of Human Health and the Environment, and Compliance with ARARs

Under Alternatives 1 and 2, portions of the Site would be capped with imported fill and/or covered with hardscape as part of the development grading plan, irrespective of the presence of COCs in soil. However, future Site users may come into contact with COCs in existing soil in uncapped areas. Thus, Alternatives 1 and 2 would not completely prevent exposure to Site COCs above CULs and would therefore not provide overall protection of human health and the environment nor comply with ARARs. For this reason, Alternatives 1 and 2 were not selected.

In contrast, Alternatives 3 and 4 would provide for excavation, land use restrictions, and vapor intrusion mitigation (if warranted), and Alternative 3 would provide for soil capping. In combination, the remedial technologies comprising Alternatives 3 and 4 would prevent exposures to COCs above CULs in soil, soil vapor, and groundwater. Therefore, these Alternatives would provide overall protection of human health and the environment as well as comply with ARARs, including Measure JJ (**Table 10**).

6.4.2 Balancing Criteria

Reduction of Toxicity, Mobility, and Volume Through Treatment

Alternatives 1 and 2 would not reduce the toxicity, mobility, or volume of contaminants in soil and groundwater through treatment and fail to satisfy this criterion. Although Site-specific treatment is only proposed as a contingency under Alternative 3, development activities including the placement of clean fill in a portion of the Site and construction of building foundations and roadways would reduce the mobility of contaminants in existing soil. However, for Alternatives 1 and 2, contaminant toxicity of mobility in soil or soil vapor would not be reduced in areas of the Site where neither raising the ground elevation nor construction are part of the redevelopment plan. In these areas, the risk levels identified in the HRA would be unmitigated during and following redevelopment.

In contrast, Alternatives 3 and 4 would reduce the mobility (e.g., potential wind dispersal and stormwater run-off) of COCs across the entire Site. Toxicity and volume of groundwater COCs in the CVOC Area (Zones 4 and 6) would be reduced through bioremediation. All existing Site soil would either be isolated beneath a cap of clean soil cover, or hardscape, or would be excavated and transferred to a permitted landfill. Additionally, Alternatives 3 and 4 would reduce the mobility and volume of contaminants in soil at the Site through excavation and offsite disposal. If needed, the optional treatment in Alternative 3 would further reduce the toxicity, mobility, and volume of contaminants in soil at the Site by thermal destruction of organic constituents such as TPH and VOCs. However, the toxicity of the off-hauled contaminated soil would not be reduced and would merely be transferred to a permitted landfill. The additional requirement for transport of impacted soil under Alternative 4 relative to Alternative 3 increases the risk of release due to the potential for surface street and highway-related accidents and impacts, loading and unloading activities, and potential releases from the landfill facility, should its containment become compromised. The transport of the impacted soil would also contribute to the emission of criteria air pollutants, other toxic air pollutants, and greenhouse gas emissions.

Long-Term Effectiveness and Permanence

Alternatives 1 and 2 would not effectively prevent exposures across the entire Site in the long-term, given the reasonably anticipated use of the Site, because no action would be taken to mitigate Site risks in areas where neither raising the ground elevation nor construction are part of the redevelopment plan.

Alternatives 3 and 4 would offer long-term effectiveness and permanence by addressing COCs in soil across the entire Site and in groundwater within the CVOC Area, implementing and maintaining land use restrictions, and preparing a soil management plan that would describe requirements for any potential contact with impacted soil or groundwater at the Site. Although Alternative 4 would offer long-term effectiveness for the Site, this Alternative would transfer a significant amount of contaminated soil to a landfill (i.e., approximately 69 times more than Alternative 3), where it would require management in perpetuity to prevent long-term impacts to the environment. It would also contribute to aggregate greenhouse gas loading.

Short-Term Effectiveness

Alternatives 1 and 2 would not be effective in the short term, given the reasonably anticipated use of the Site, because no action would be taken to mitigate Site risks in areas where neither raising the ground elevation nor construction are part of the redevelopment plan.

For Alternatives 3 and 4, the period of time needed to complete the remedy would be similar, though off-haul of excavated soil would be expected to take approximately 48 days for Alternative 3 and, assuming the same haul rate, approximately 10.5 years for Alternative 4. For Alternatives 3 and 4, short-term protectiveness would be provided by implementing measures to protect remedial construction workers, and through Occupational Safety and Health Administration work standards during excavation, relocation and capping, and offsite disposal.

Controls identified in pre-construction plans and implemented during construction would manage offsite dust migration and offsite storm water and sediment migration. Best practices will be implemented to minimize air pollution, and all construction activities involving heavy machinery will be conducted during typical working hours. Air pollution and noise impacts will be far greater for Alternative 4 than for Alternative 3 because of the more extensive earthwork in Alternative 4. Air pollution would be associated with heavy equipment excavating and handling soil, trucks to transport material offsite, trucks to transport soil back onsite to fill the excavation, and heavy equipment for placing and compacting fill soil back into the excavation.

The greenhouse gas emissions by excavators and loaders is roughly proportional to the quantity of soil being excavated and stockpiled. Thus, the greenhouse gases emitted during excavation and stockpiling of 833,000 bulk cubic yards of soil under Alternative 4 would be approximately 30 times greater than excavating and stockpiling 24,000 bulk cubic yards of soil under Alternative 3.

The impacts of soil transportation for Alternatives 3 and 4 were estimated using assumptions for OU-2 in the Draft Environmental Impact Report for the Brisbane Baylands [ESA, 2018]. The following emissions were calculated for Alternatives 3 and 4:

Alternative	Off-haul of Excavated Soil	Import of Backfill or Cap Soil	TOTAL
3 – Capping, limited excavation with partial onsite relocation and partial offsite disposal	299	379	678
4 – Site-wide excavation and offsite disposal, backfilling to restore grade	20,700	255	21,000
4* – Site-wide excavation and offsite disposal, backfilling, and regrading to 5 feet above current grade (same as Alternative 3)	20,700	634	21,400

Notes: Units are metric tons of greenhouse gas emissions as carbon dioxide equivalents based on emission factors provided in Appendix G of the Draft Environmental Impact Report for the Brisbane Baylands [ESA, 2018]. Transport of excavated soil to Altamont Landfill (58 miles from the Site) and Buttonwillow Landfill (260 miles from the Site) were assumed for non-hazardous and hazardous soil, respectively; imported fill was assumed to be transported from the Baylands Soil Processing facility (1.25 miles from the Site). Tabulated quantities are for remediation only and do not include soil import and regrading for development.

The greenhouse gas emissions that would be generated transporting soil are approximately 31 times higher for Alternative 4 than for Alternative 3. The soil quantities for placement and compaction are slightly greater for Alternative 3 than for Alternative 4 (i.e., 1,240,000 bulk cubic yards and 833,000 bulk cubic yards, respectively), so greenhouse gas emissions for placement and compaction would be higher for Alternative 3 by approximately 50%. The higher greenhouse gas emissions associated with excavation, stockpiling, and transportation make Alternative 4 approximately 30 to 60 times more impactful than Alternative 3.

However, the Site grade following implementation of Alternative 3 would be five feet higher than current grade across most of the Site, whereas the Site grade would be unchanged following implementation of Alternative 4. Currently, the development plan consists of raising the grade over most of the Site by at least 5 feet and up to 30 feet. Comparing emissions for Alternatives 3 and 4 for the same post-remedial Site grading (i.e., approximately 5 feet higher than current grade across most of the Site), Alternative 4 would require backfilling the excavation and importing soil to raise the Site grade 5 feet, summarized as Alternative 4* above.

Implementability

Each Alternative is readily implementable from a technical and administrative feasibility perspective. Alternative 2 would be easier to implement from a technical perspective than Alternatives 3 and 4 because it only involves administrative action for implementing the land use restrictions, construction of vapor mitigation controls during redevelopment, if warranted, and groundwater and reporting. Alternative 3 and 4 by comparison require excavation and capping of soils and remediation of groundwater using bioremediation. Alternative 4 is implementable, but provides the highest overall risk and emissions to the environment due to waste hauling and offsite transfer of all excavated soil, and import and placement of fill soil. Significantly increased truck traffic would increase congestion on surface streets and highways and increase the likelihood of vehicular accidents.

Cost

Of the four remedial alternatives, Alternative 4 (\$ 201.5 million) has the highest estimated cost (**Appendix E**).

6.4.3 Modifying Criteria

Regulatory Agency and Community Acceptance

Formal assessment of regulatory agency and community acceptance will be considered during the public comment period on this DRAFT FS/RAP, and documented in a Responsiveness Summary that will be included as part of the FINAL FS/RAP.

6.4.4 Additional HSC Criteria

Alternatives 1 and 2 do not meet several California HSC criteria for the entire Site, including the health and safety risks posed by contamination at the Site and the effect of contamination on future uses of the Site. Alternatives 3 and 4 would meet all California HSC criteria. Alternative 4 would result in the greatest offsite environmental impact due to hauling and transportation of all excavated soil to an offsite landfill facility.

6.5 Alternatives Screening Results

The comparative analysis of remedial alternatives discussed in the previous section is summarized in **Table 12**. Scores were assigned to each remedial alternative for each of the above criteria based on whether the alternative meets the criterion, mostly meets the criterion, partially meets the criterion, or does not meet the criterion.

Alternatives 1 and 2 are not adequately protective and scored low for threshold criteria and several balancing criteria. Alternatives 3 and 4 are similarly protective in that COCs in existing fill would be isolated beneath a cap and potential exposure pathways would be incomplete. Alternative 3 scored the highest based on (1) comparable protectiveness as compared with Alternative 4; and (2) the lowest environmental impact by virtue of off-hauling less soil than Alternative 4. Based on the comparative analysis of remedial alternatives, Alternative 3 was selected as the preferred alternative.

6. FEASIBILITY STUDY AND ALTERNATIVES ANALYSIS

This section presents: 1) the remedial technology screening matrix based on contaminated media, risk-based cleanup levels, and rough development grading requirements; 2) the criteria used to develop and evaluate remedial technologies; 3) the development of remedial action alternatives based on the screening and evaluation; and 4) assessment of remedial alternatives developed for UPC OU-SM, and rationale for selection of the preferred remedial approach.

6.1 Remedial Technology Screening

This section outlines the range of general response actions to address contamination at the Site, and corresponding remedial technologies that are potentially applicable for the contaminated soil, soil vapor, and groundwater at the Site.

6.1.1 General Response Actions

A range of general response actions (GRAs), for which corresponding remedial technologies may be applicable to Site conditions, were identified for the Site for initial baseline evaluation and comparison purposes under RAP Guidance in Section 6.1.2. The GRAs considered for the Site include: no action, institutional controls, containment, ex situ treatment, in situ treatment, and excavation/offsite disposal. One or more remedial technologies that correspond to the GRAs were then evaluated and compared based on three criteria: 1) effectiveness for achieving long-term protection; 2) implementability; and 3) relative costs.

To refine the range of remedial technologies that would potentially be developed into remedial alternatives for the Site that must undergo detailed analysis, the NCP at 40 CFR 300.430(e)(7) provides the opportunity to initially screen them against the short- and long-term aspects of the following three criteria:

- **Effectiveness:** Alternatives are judged on the degree to which an alternative reduces toxicity, mobility, or volume through treatment; minimizes residual risks and affords long-term protection; complies with ARARs; minimizes short-term impacts; and how quickly it achieves protection. Alternatives providing significantly less effectiveness than other, more promising alternatives may be eliminated. Alternatives that do not provide adequate effectiveness in protecting human health and the environment shall be eliminated from further consideration.
- **Implementability:** This criterion focuses on the technical feasibility and availability of the technologies each alternative would employ, and the administrative feasibility of implementing the alternative. Alternatives that are technically or administratively infeasible, or require equipment, specialists, or facilities that are not available within a reasonable period of time may be eliminated from further consideration.
- **Cost:** Costs of construction and any long-term costs to operate and maintain the alternatives shall be considered. Costs that are grossly excessive compared to the overall effectiveness of alternatives may be used as a factor to exclude alternatives from further consideration. Alternatives providing effectiveness and implementability comparable to that of another

alternative by employing a similar method of treatment or engineering control, but at greater cost, may also be eliminated.

6.1.2 Remedial Technology Screening

This section describes the screening and selection of the range of remedial technologies that are potentially applicable for the contaminated soil, soil vapor, and Fill zone groundwater at the Site.

The Remedial Technology Screening Matrix presented in **Table 13** was used to guide whether a technology should be retained for further consideration based on the nature and extent of the current levels of contamination at the Site, as summarized in Section 3.

Land Use Restrictions (administrative/institutional mechanisms) would be included as components of the remedial action alternatives developed based on the remedial technology screening. These controls may be applicable both within the short term (e.g., to prevent reuse of groundwater or select vapor intrusion mitigation measures where there is significant risk or other controls until CULs are achieved), and in the long term to: 1) maintain the reuses consistent with the risk exposures assumed in the development of CULs (or Site-specific CULs) for the preferred remedial actions, and 2) prevent unrestricted reuses of areas where residual contamination may remain.

The following technologies retained from the screening were then incorporated in the development of remedial action alternatives described in Section 6.2:

- Institutional Control (administrative/institutional mechanisms) for Soil, Soil Vapor, and Groundwater – Restrictions limiting Site uses, including adopting land use restrictions (e.g., administrative controls and/or engineering controls) to ensure that uses are protective of Site users for CVOCs in soil vapor and groundwater;
- Capping (containment) for Soils – Capping of existing Site soil using hardscape materials or a specified thickness of clean soil to ensure the protection of future Site users by eliminating direct contact exposure pathways to impacted soil; and
- Excavation for Soils – Where development requires excavation or existing soil cannot be capped, excavation of soil exceeding CULs and offsite disposal and/or excavation and relocation beneath a cap to eliminate direct contact exposure pathways and, in the case of offsite disposal, to reduce the amount of contaminant mass at the Site.

6.2 Remedial Alternatives Development and Evaluation

6.2.1 Description of Evaluation Criteria

The above technologies were assembled into five remedial alternatives. The five remedial alternatives were subjected to: 1) a detailed alternative analysis pursuant to the nine criteria of the NCP and the six criteria of Section 2535b.1 of the HSC; and 2) comparative analysis identifying the advantages and disadvantages of each alternative when compared to other alternatives considered for the Site.

The nine NCP criteria include two threshold, five balancing, and two modifying criteria. For a remedial alternative to be considered an appropriate remedial action, it must meet both threshold criteria.

Balancing criteria provide an opportunity to identify and evaluate strengths, weaknesses, and the cost-effectiveness of an alternative. Modifying criteria are evaluated after the public comment period.

This section introduces these criteria. Summaries of the comparative evaluations of alternatives for the remedial action areas included in this Draft FS/RAP are presented in Section 6.4.

The HSC requires that the remedial alternatives be evaluated relative to the following six additional criteria:

1. Health and safety risks posed by the site conditions;
2. The effect of COCs present on probable present and future uses of contaminated or threatened resources;
3. The effect on available groundwater resources for present, future, and probable beneficial uses (treatment alternatives that reduce the volume, toxicity, and mobility of contaminants as opposed to alternatives that use offsite transport and disposal are preferred);
4. Site-specific conditions (potential for offsite migration) and existing contaminant background levels;
5. Cost-effectiveness, considering the short-term and long-term costs of the remedial action and whether deferral of a remedial action could result in a cost increase or hazard increase to human health or the environment; and
6. The potential environmental impacts of the remedial alternative such as land disposal of contaminated material versus treatment to remove or reduce its volume, toxicity, or mobility prior to disposal.

The six HSC criteria are similar to, and covered under, the nine NCP criteria in this Draft FS/RAP, as described below.

6.2.1.1 Threshold Criteria

Overall Protection of Human Health and the Environment - Addresses whether a remedy provides adequate protection and describes how risks posed through each exposure pathway are eliminated, reduced, or controlled through treatment, engineering controls, or land use restrictions.

Compliance with ARARs - Addresses whether a remedy will meet all applicable or relevant and appropriate Federal, State and local environmental laws and regulations.

6.2.1.2 Balancing Criteria

Long-term Effectiveness and Permanence - Considers the ability of a remedy to provide reliable protection of human health and the environment over time once cleanup goals have been achieved.

Reduction of Toxicity, Mobility, and Volume Through Treatment - Evaluates the anticipated performance of the alternative with respect to the reduction of toxicity, mobility, and volume of contaminants. This criterion reflects the preference for treatment of contaminated soil and groundwater as opposed to offsite transport and disposal.

Short-term Effectiveness - Evaluates the period of time needed to complete the remedy, and any adverse impact on human health and the environment that may be posed during the construction and implementation period, until cleanup standards are achieved. Potential impacts during construction include construction worker exposure to Site COCs, offsite dust migration, offsite storm water and sediment migration, air pollution, and noise.

Implementability - Refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a remedial option.

Cost - Evaluates the capital and O&M costs for 10 years for each alternative. Cost estimates of this type are considered accurate to a range of minus 30% to plus 50%. The reasons for this range are the variability of construction materials, variability in construction costs over time, the complexity of developing site-specific cost factors, and the sensitivity of construction costs to economic factors such as interest rates and materials costs.

6.2.1.3 Modifying Criteria

These criteria will be addressed during the public review and comment period on this Draft FS/RAP and will be summarized in the Responsiveness Summary to this Draft FS/RAP.

Regulatory Agency Acceptance - Indicates whether, based on their review of the information, the applicable regulatory agencies would agree with the preferred alternative.

Community Acceptance - The Draft FS/RAP is subject to public review and comment prior to selection of the remedial action alternative. This criterion assesses whether community concerns are addressed by the remedy and whether the community prefers a remedy. The final remedies in this Draft FS/RAP will be selected following the public comment period.

6.3 Description of Remedial Action Alternatives

This section describes the remedial action alternatives that were developed based on assembly of the following applicable remedial technologies that passed the initial screening:

<p>Land Use Restrictions</p> <p>-- Land Use Covenant documenting the following prohibitions:</p> <ul style="list-style-type: none"> • No occupied buildings, including sensitive uses, where CVOC concentrations in soil vapor exceed CULs without DTSC approval based on either (1) a risk assessment demonstrating Site soil vapor conditions pose no significant risk to human health, or (2) engineering controls, such as building design or gas intrusion mitigation systems, that will reduce the risk of vapor intrusion to an acceptable level; • No growing produce or vegetables for human consumption in native soil. Plants for human consumption may be grown if they are planted in raised beds (above the approved cover) containing non-native soil. Trees producing edible fruit (including trees producing edible nuts) may also be planted provided they are grown in containers with a bottom that prevents the roots from penetrating the native soil; • No extraction or use of underlying groundwater is allowed without a Groundwater Management Plan pre-approved by DTSC; • No drilling for any water, oil, or gas, or extraction or removal of groundwater without a DTSC-approved Groundwater Management Plan and prior written approval by DTSC; • No interference with, or modification of, a vapor mitigation system shall be permitted without prior written approval by DTSC, and future tenants must provide reasonable access for O&M of vapor mitigation systems; • All excavation into the cap shall comply with the DTSC-approved Soil Management Plan (SMP); • Contaminated soils brought to the surface by grading, excavation, trenching or backfilling shall be managed in accordance with all applicable provisions of state and federal law and a pre-approved DTSC SMP; and • All uses and development of the Site shall preserve the integrity and effectiveness of the cap.
<p>Engineering Controls</p> <p>-- Vapor intrusion mitigation systems or intrinsically safe building design for mitigating vapor intrusion into indoor air by VOCs in soil vapor;</p> <p>-- Sub-slab venting.</p>
<p>Capping</p> <p>-- Soil cover meeting unrestricted use screening criteria for the COCs identified at the Site with a minimum 5-foot thickness and an underlying demarcation layer.</p> <p>-- Hardscape consisting of concrete, asphalt, masonry, or other durable, impervious surface.</p> <p>-- Building foundations.</p> <p>-- O&M Plan to maintain capped surfaces and operate vapor intrusion mitigation systems, if applicable.</p>
<p>Excavation</p> <p>-- Onsite relocation of excavated soil exceeding CULs and capping with a soil cover, hardscape, or building foundation.</p> <p>-- Offsite disposal of excavated soil at a licensed and approved waste management facility.</p>

The following Site-wide remedial action alternatives were developed based on the screening of remedial technologies presented in Section 6.1.2 and summarized in **Table 13**:

- Alternative 1: No Action;
- Alternative 2: Land Use Restrictions and Engineering Controls for Vapor Intrusion Mitigation;

- Alternative 3: Soil Capping and Localized Excavation with Some Onsite Relocation and Some Offsite Disposal, Land Use Restrictions, and Engineering Controls for Vapor Intrusion Mitigation;
- Alternative 4: Soil Capping and Excavation with Offsite Disposal, Land Use Restrictions, and Engineering Controls for Vapor Intrusion Mitigation; and
- Alternative 5: Soil Excavation with Offsite Disposal and Land Use Restrictions.

For the evaluation of remedial alternatives, it was assumed that regrading will be completed in anticipation of redevelopment under all remedial alternatives. Regrading for redevelopment assumes soil will be imported to the Site to raise the grade according to the development plan but without a remediation objective. So although remedial alternatives describe remedial activities, not development activities, the remedial alternatives were evaluated based on the anticipated final grade of the Site prior to the commencement of vertical construction.

The alternatives are described below and comparatively evaluated in Section 6.4 based on the criteria presented in Section 6.2.

6.3.1 Alternative 1 — No Action

No additional control or protection of human health and the environment would be implemented for the contamination present at the Site. This alternative is required as a baseline alternative for comparison to other alternatives under RAP Guidance. There is negligible cost associated with administrative activities for this alternative.

6.3.2 Alternative 2 — Land Use Restrictions and Engineering Controls for Vapor Intrusion Mitigation

This alternative assumes no active remediation would be implemented and there would be land use and activity restrictions to prevent an unacceptable risk due to environmental conditions.

Land Use Restrictions: A land use covenant would be recorded on the title to the property that would clearly define the land use and activity restrictions that would be necessary to prevent human exposures to contaminants left in place in soil and/or soil vapor above CULs.

Engineering Controls: Engineering controls would be implemented to control dust emissions and stormwater runoff during construction and to mitigate intrusion of VOC vapors from the groundwater and soil into occupied buildings where needed. For costing purposes, monitoring of engineering controls to verify the vapor intrusion risk has been mitigated would be conducted for 30 years following construction.

The total estimated cost of this alternative is approximately 4,430,000, which includes capital costs of 840,000 and O&M costs of 3,590,000 (Appendix C).

6.3.3 Alternative 3 — Soil Capping and Excavation with Partial Onsite Relocation and Partial Offsite Disposal, Land Use Restrictions, and Engineering Controls for Vapor Intrusion Mitigation

This alternative consists of soil capping in most areas of the Site, as dictated by the proposed development grading plan; excavation of some soil and relocation onsite to be placed under streets or building foundations, which would act as a hardscape cap; excavation of some soil and offsite disposal; land use restrictions where capping or excavation are not implemented; and engineering controls.

As noted in the Project Description (Section 1.4), the proposed development grading plan requires that a significant amount of soil be imported to the Site and placed as fill to raise the grade to a new elevation. The ground surface elevation at the Site will remain at the current elevation adjacent to Bayshore Boulevard, but will be raised substantially near the railroad tracks to accommodate the Geneva Avenue extension flyover. The thickness of fill that is specified in the grading plan ranges from a minimum of 5 feet to as much as 30 feet across most of the Site. To meet the remedial action objectives of this Alternative 3 (i.e., ensure the protection of future Site users by breaking the direct exposure pathway to impacted soil), impacted soil shall be capped with either hardscape material or at least 5 feet of clean, imported soil. The quality of this imported soil will satisfy the residential land use cleanup levels specified in Section 4.2.1 and Appendix D, as determined in accordance with the DTSC's Clean Fill Advisory [DTSC, 2001]. A demarcation layer consisting of a bright-colored geotextile fabric would be placed between the clean soil cap and the existing soil. A conceptual cross-section depicting the cover-fill configuration is provided as **Figure 21**.

Soil in the western portion of the Site adjacent to Bayshore Boulevard with COCs that exceed health risk criteria will either be capped by hardscape (i.e., building foundations or roadways) or excavated for onsite relocation or offsite disposal. The excavations would be backfilled so the thickness of clean soil is at least 5 feet over any residual soil or fill from onsite with COC concentrations exceeding CULs. Excavated soil that is relocated onsite and that contains COCs above CULs will be capped beneath 5 feet of imported clean fill or beneath hardscape elsewhere on the Site.

The property boundary along Bayshore Boulevard is approximately 1,400 feet long. Assuming an average 10% incline, the ground surface elevation will rise by 5 feet at a distance of 50 feet east of Bayshore Boulevard. Within this 1,400 feet by 50 feet area, any existing soil with COCs that exceed the CULs and that will not be covered by hardscape will need to be excavated and backfilled. Assuming that half the area will be covered by hardscape, the area subject to excavation is 35,000 square feet. Further assuming a linear incline from 0 feet to 5 feet, the average thickness of clean fill would be 2.5 feet. Thus, to create a 5-foot thick column of clean soil atop existing Site soil, the average excavation depth in this area would be 2.5 feet (i.e., the excavation depth is zero feet where the thickness of clean fill is 5 feet, and the excavation depth is 5 feet where the thickness of clean fill is 0 feet). An excavation with area 35,000 square feet and thickness 2.5 feet has a volume of 87,500 bank cubic feet, which is approximately 3,200 bank cubic yards or 3,840 bulk cubic yards assuming a bulking factor of 1.2. Providing an allowance for deeper excavations, the assumed volume of soil excavation under this alternative is 5,000 bulk cubic yards.

For costing purposes, 2,500 bulk cubic yards of excavated soil was assumed to be relocated onsite and appropriately capped with a clean soil cover, hardscape, or a building foundation. The other 2,500 bulk cubic yards would be transported offsite for disposal; it was assumed 80% (i.e., 2,000 cubic yards) would be disposed as non-hazardous waste at the Class II facility in Altamont, California, and 20% (i.e., 500 bulk cubic yards) would be disposed as non-RCRA hazardous waste at the Class I facility in Buttonwillow, California. Other permitted disposal facilities may be used if appropriate. The offhaul volume of 2,500 bulk cubic yards corresponds to 208 truckloads of 12 bulk cubic yards per load. Offhaul would occur over approximately 10 days. Excavation and relocation/offhaul details will be specified in the RDIP.

Soil vapor sampling will be conducted after regrading and prior to commencing vertical construction. If warranted by the soil vapor sample results and Site-specific risk assessment, vapor intrusion mitigation will be included in future building construction. For costing purposes, monitoring of engineering controls to verify the vapor intrusion risk has been mitigated would be conducted for 30 years following construction.

The total estimated cost of this alternative is approximately 12,600,000, which includes capital costs of 9,000,000 and O&M costs of 3,600,000 (Appendix C).

6.3.4 Alternative 4 — Soil Capping and Excavation with Offsite Disposal, Land Use Restrictions, and Engineering Controls for Vapor Intrusion Mitigation

This alternative is similar to Alternative 3 except that the entirety of an assumed 5,000 bulk cubic yards of soil would be transported offsite for disposal at a permitted waste management facility rather than half of it being relocated onsite. For the cost estimate, it was assumed that 80% of the soil would be transported to the Class II facility in Altamont, California, and 20% of the soil would be transported to the Class I facility in Buttonwillow, California. Other approved disposal facilities may be used if appropriate. The offhaul volume of 5,000 bulk cubic yards corresponds to 416 truckloads of 12 bulk cubic yards per load. Offhaul would occur over approximately 20 days. All other elements are as described in Alternative 3.

Soil vapor sampling will be conducted after regrading and prior to commencing vertical construction. If warranted by the soil vapor sample results and Site-specific risk assessment, vapor intrusion mitigation will be included in future building construction. For costing purposes, monitoring of engineering controls to verify the vapor intrusion risk has been mitigated would be conducted for 30 years following construction.

The total estimated cost associated with implementation of this alternative is approximately 13,000,000, which includes capital costs of 9,400,000, and O&M costs of 3,600,000 (Appendix C).

6.3.5 Alternative 5 — Excavation with Offsite Disposal, Land Use Restrictions, and Engineering Controls for Vapor Intrusion Mitigation

In this alternative, all soil with COC concentrations exceeding CULs would be excavated to the depth of: (1) the top of a sample with all COC concentrations below screening levels; or (2) a maximum of five feet below ground surface. The estimated excavation depths across the Site are shown in **Figure 22**. All excavated soil would be transported offsite for disposal at a permitted

waste management facility. For the cost estimate, it was assumed that 80% of the soil would be transported to the Class II facility in Altamont, California, and 20% of the soil would be transported to the Class I facility in Buttonwillow, California. Other approved disposal facilities may be used if appropriate. The offhaul volume of 242,500 bank cubic yards (291,000 bulk cubic yards) corresponds to 24,250 truckloads of 12 bulk cubic yards per load. Assuming the same haul rate as Alternatives 3 and 4, offhaul would occur over approximately 3 years. Following excavation, clean fill would be imported to the Site and placed in the excavations to bring the ground surface back to the existing grade. Imported soil would be placed and compacted to accommodate additional fill loads and building loads.

Soil vapor sampling will be conducted after regrading and prior to commencing vertical construction. If warranted by the soil vapor sample results and Site-specific risk assessment, vapor intrusion mitigation will be included in future building construction. For costing purposes, monitoring of engineering controls to verify the vapor intrusion risk has been mitigated would be conducted for 30 years following construction.

The total estimated cost associated with implementation of this alternative is approximately 61,500,000, which includes capital costs of 57,900,000, and O&M costs of 3,600,000 (Appendix C).

6.4 Summary Evaluation and Comparative Analysis of Remedial Action Alternatives

The five remedial alternatives identified in Section 6.3 were assessed using seven of the nine NCP criteria for CERCLA sites established by USEPA [USEPA, 1989c] and additional California HSC criteria, as introduced in Section 6.2. The remaining two of the nine NCP criteria will be assessed after the Draft FS/RAP has been made available for public comment. A summary of the alternative evaluation and comparison is presented below.

6.4.1 Threshold Criteria

6.4.1.1 Overall Protection of Human Health and the Environment, and Compliance with ARARs

Under Alternatives 1 and 2, portions of the Site would be capped with imported fill and/or covered with hardscape as part of the development grading plan, irrespective of the presence of COCs in soil. However, future Site users may come into contact with COCs in existing soil in uncapped areas. Thus, Alternatives 1 and 2 would not completely prevent exposure to Site COCs above CULs and would therefore not provide overall protection of human health and the environment nor comply with ARARs. Furthermore, Alternatives 1 and 2 would not provide for mitigation against vapor intrusion, if warranted. For this reason, Alternatives 1 and 2 were not selected.

In contrast, Alternatives 3, 4, and 5 would provide for capping, excavation, land use restrictions, and vapor intrusion mitigation (if warranted) such that exposures to COCs above CULs in soil, soil vapor, and groundwater would be prevented. Therefore, these Alternatives would provide overall protection of human health and the environment as well as comply with ARARs including Measure JJ (Table 12).

6.4.2 Balancing Criteria

6.4.2.1 *Reduction of Toxicity, Mobility, and Volume Through Treatment*

Alternatives 1 and 2 would not reduce the toxicity, mobility, or volume of contaminants in soil through treatment and fail to meet this criterion. Although Site-specific treatment is not proposed under any alternative, development activities including the placement of clean fill in a portion of the Site and construction of building foundations and roadways would reduce the mobility of contaminants in existing soil. Continued treatment of CVOCs in groundwater migrating from the Schlage OU, as required in the Schlage OU RAP, would provide for reduction of toxicity, mobility, and volume of CVOCs in groundwater. For Alternatives 1 and 2; contaminant toxicity or mobility in soil or soil vapor would not be reduced in areas of the Site where neither raising the ground elevation nor construction are part of the redevelopment plan. In these areas, the risk levels identified in the HRA would be unmitigated during and following redevelopment.

In contrast, Alternatives 3, 4, and 5 would reduce the mobility (e.g., potential wind dispersal and stormwater run-off) of COCs in soil across the entire Site. Continued treatment of CVOCs in groundwater migrating from the Schlage OU, as required in the Schlage OU RAP, would provide for reduction of toxicity, mobility, and volume of CVOCs in groundwater. All existing Site soil would either be isolated beneath a cap of clean soil cover or hardscape, or would be excavated and transferred to a permitted landfill. Additionally, Alternatives 3, 4, and 5 would reduce the mobility and volume of contaminants in soil at the Site through excavation and offsite disposal. However, the toxicity of the off-hauled contaminated soil would not be reduced and would merely be transferred to a permitted landfill. The greater requirement for transport of impacted soil under Alternatives 4 and 5 relative to Alternative 3 increases the risk of release due to the potential for highway-related accidents, loading and unloading activities, and potential releases from the landfill facility, should its containment become compromised. The transport of the impacted soil would also contribute to the emission of criteria air pollutants, other toxic air pollutants, and greenhouse gas emissions.

6.4.2.2 *Long-Term Effectiveness and Permanence*

Alternatives 1 and 2 would not effectively prevent exposures across the entire Site in the long-term, given the reasonably anticipated use of the Site, because no action would be taken to mitigate Site risks in areas where neither raising the ground elevation nor construction are part of the redevelopment plan.

Alternatives 3, 4, and 5 would offer long-term effectiveness and permanence by addressing COCs in soil across the entire Site, implementing and maintaining land use restrictions, and preparing a soil management plan that would describe requirements for any potential contact with impacted soil or groundwater at the Site. Although Alternative 5 would offer long-term effectiveness for the Site, this Alternative would transfer a significant amount of contaminated soil to a landfill, where it would require management in perpetuity to prevent long-term impacts to the environment. It would also contribute to aggregate greenhouse gas loading.

6.4.2.3 *Short-Term Effectiveness*

Alternatives 1 and 2 would not be effective in the short term, given the reasonably anticipated use of the Site, because no action would be taken to mitigate Site risks in areas where neither raising the ground elevation nor construction are part of the redevelopment plan.

For Alternatives 3 and 4, the period of time needed to complete the remedy would be similar, though offhaul of excavated soil would be expected to take approximately 10 days for Alternative 3 and 20 days for Alternative 4. Assuming the same haul rate, the time required to complete offhaul of excavated soil for Alternative 5 would be approximately 970 days. For Alternatives 3, 4, and 5, short-term protectiveness would be provided by implementing measures to protect remedial construction workers, and through Occupational Safety and Health Administration (OSHA) work standards during excavation, relocation and capping (Alternative 3), and excavation and offsite disposal (Alternatives 4 and 5).

Controls identified in pre-construction plans and implemented during construction would manage offsite dust migration and offsite storm water and sediment migration. Best practices will be implemented to minimize air pollution, and all construction activities involving heavy machinery will be conducted during typical working hours. Air pollution and noise impacts will be far greater for Alternative 5 than for Alternatives 3 and 4 because of the more extensive earthwork in Alternative 5. Air pollution would be associated with heavy equipment excavating and handling soil, trucks to transport material offsite, trucks to transport soil back onsite to fill the excavation, and heavy equipment for placing and compacting fill soil back into the excavation.

The greenhouse gas emissions by excavators and loaders is roughly proportional to the quantity of soil being excavated and stockpiled. Thus, the greenhouse gases emitted during excavation and stockpiling of 242,500 cubic yards of soil would be approximately 48 times greater than excavating and stockpiling 5,000 cubic yards of soil.

The impacts of soil transportation for each alternative were estimated using assumptions for the UPC OU-SM in the Draft Environmental Impact Report for the Brisbane Baylands [ESA, 2013]. The following emissions were calculated for Alternatives 3, 4, and 5:

Alternative	Offhaul of Excavated Soil	Import of Backfill or Cap Soil	TOTAL
3 – Capping, limited excavation with partial onsite relocation and partial offsite disposal	62	104	166
4 – Capping, limited excavation with offsite disposal	124	104	224
5a – Site-wide excavation and offsite disposal, backfilling to current grade	6,038	89	6,127
5b - Site-wide excavation and offsite disposal, backfilling and regrading to 5 feet above current grade (same as Alternatives 3 and 4)	6,038	193	6,231

Notes: Units are metric tons of greenhouse gas emissions as carbon dioxide equivalents based on emission factors provided in Appendix G of the Draft Environmental Impact for the Brisbane Baylands [ESA, 2013]. Transport of excavated soil to Altamont Landfill (58 miles from the Site) and Buttonwillow Landfill (260 miles from the Site) were assumed for non-hazardous and hazardous soil, respectively; imported fill was assumed to be transported from the Baylands Soil Processing facility (1.25 miles from the Site).

Thus, the greenhouse gas emissions that would be generated transporting soil are approximately 37 times higher for Alternative 5 than for Alternative 3. The soil quantities for placement and compaction are slightly greater for Alternative 3 than for Alternative 5 (i.e., 339,600 bulk cubic yards and 291,000 bulk cubic yards, respectively), so greenhouse gas emissions would be roughly similar but slightly higher for Alternative 3 by a factor of approximately 1.2. The higher greenhouse gas emissions associated with excavation, stockpiling, and transportation make Alternative 5 approximately 35 to 50 times more impactful than Alternative 3.

However, the Site grade following implementation of Alternative 3 or 4 would be five feet higher than current grade across most of the Site, whereas the Site grade would be unchanged following implementation of Alternative 5. Currently, the development plan consists of raising the grade over most of the Site by at least 5 feet and up to 30 feet. Comparing emissions for Alternative 3 or 4 against Alternative 5 for the same post-remedial Site grading (i.e., approximately 5 feet higher than current grade across most of the Site), Alternative 5 would require backfilling the excavation and importing soil to raise the Site grade 5 feet, summarized as Alternative 5b above.

6.4.2.4 Implementability

All alternatives are readily implementable from a technical and administrative feasibility perspective. However, Alternative 2 would be easier to implement from a technical perspective than Alternatives 3, 4, and 5 because it only involves administrative action for implementing the land use restrictions, compared to excavation and/or capping of soils under Alternatives 3, 4, and 5. Alternative 5 is implementable but provides the highest overall risk and emissions to the environment due to waste hauling and offsite transfer of all excavated soil, and import and placement of fill soil. Significantly increased truck traffic would increase congestion on surface streets and highways and increase the likelihood of vehicular accidents.

6.4.2.5 Cost

Of the three remedial alternatives that are protective of human health and the environment, Alternative 3 (12,600,000) has a lower estimated cost than Alternative 4 (13,000,000) and Alternative 5 (61,500,000) (Appendix C).

6.4.3 Modifying Criteria

6.4.3.1 Regulatory Agency and Community Acceptance

Formal assessment of regulatory agency and community acceptance will be considered during the public comment period on this Draft FS/RAP, and documented in a Responsiveness Summary that will be included as part of the Final FS/RAP.

6.4.4 Additional HSC Criteria

Alternatives 1 and 2 do not meet several California HSC criteria for the entire Site, including the health and safety risks posed by contamination at the Site and the effect of contamination on future uses of the Site. Alternatives 3, 4, and 5 would likely meet all California HSC criteria. Alternative 5 would result in the greatest offsite environmental impacts due to hauling and transportation of all excavated soil to an offsite landfill facility.

6.5 Alternatives Screening Results

The comparative analysis of remedial alternatives discussed in the previous section is summarized in **Table 14**. Scores were assigned to each remedial alternative for each of the above criteria based on whether the alternative meets the criterion, mostly meets the criterion, partially meets the criterion, or does not meet the criterion.

Alternatives 1 and 2 are not adequately protective and scored low for threshold criteria and several balancing criteria. Alternatives 3, 4, and 5 are all similarly protective in that COCs in existing fill would be isolated beneath a cap and potential exposure pathways would be incomplete. Alternative 3 scored the highest based on comparable protectiveness as compared with Alternatives 4 and 5 and the lowest environmental impact by virtue of offhauling the least amount of soil of the three alternatives. Alternative 4 scored second highest and is nearly identical to Alternative 3 except for the higher environmental impact associated with the larger volume of soil offhaul. Alternative 5 had the third highest score on account of negligible improvement on protectiveness relative to Alternatives 3 and 4 but considerable environmental impact associated with soil offhaul. Based on the comparative analysis of remedial alternatives, Alternative 3 was selected as the preferred alternative.



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November 4, 2020

BY E-MAIL

John Swiecki, Director
 Community Development Department
 City of Brisbane
 50 Park Place, Brisbane CA, 94005
jswiecki@brisbaneca.org

Re: Brisbane Baylands UPC OU-SM and OU-2 FS/RAP Status Update

Dear Mr. Swiecki:

As part of its efforts to redevelop the Brisbane Baylands (“Site”) into a mixed-use development project, known as the Brisbane Baylands Development (“Project”), Universal Paragon Company (“UPC”) has finalized the draft Feasibility Study/Remedial Action Plans (“Draft Final FS/RAPs”) to address environmental impacts from historical activities that occurred at the Site. Encompassing approximately 660-acres, the Brisbane Baylands is bordered on the west by Bayshore Boulevard, north by the City and County of San Francisco, east by U.S. HWY 101, and south by Brisbane Lagoon. The Site was formerly used as the Southern Pacific Transportation Company (“SPTC”) Brisbane Railyard (from approximately 1911 to 1982), a municipal landfill (from approximately 1932 to 1967), and commercial/industrial park along Industrial Way (over the last approximately 100 years). From the time when railyard operations ceased in 1982, the majority of the Site has been unused and vacant, though various foundations and structures remain.

In November 2018, the voters of City of Brisbane (“City”) approved Measure JJ to amend the City’s General Plan to rezone the Site thereby allowing the development of mixed residential, commercial, and public uses at the Site. Given the community’s longstanding concerns of environmental impacts from historical operations, Measure JJ was drafted to require development to support ground level residential uses and comply with the associated higher-level remediation standards. In an effort to ensure the proposed development is consistent with Measure JJ’s goals, the City requested that EKI Environment & Water, Inc. (“EKI”) and

Edgcomb Law Group, LLP (“ELG”) provide technical and legal environmental consulting services to review and comment on various work plans, reports, and remediation plans prepared by UPC for the Project. This memorandum summarizes the technical review and analysis by EKI and ELG and provides recommendations on how to address outstanding issues.

Background

Since approximately 1984, numerous environmental investigations have been conducted at the Site to characterize the distribution of contaminants resulting from historical railroad operations and a contaminant plume originating from the adjacent Schlage Lock site. Early investigations found contaminants in the soil and groundwater at the Schlage Lock site, which led to the issuance of a Remedial Action Order (“RAO”) to the SPTC by the State Department of Health Services in 1988, followed by an Imminent and/or Substantial Endangerment Order (“Order”) issued by the Department of Toxic Substances Control (“DTSC”) in 1990 to Tuntex Properties, Inc., the predecessor company to UPC. The Order requires the submission of a Feasibility Study (“FS”), Remedial Action Plan (“RAP”), Remedial Design and Implementation Plan (“RDIP”), Implementation of Final RAP, and Operation and Maintenance in accordance with the Final RAP and RDIP among other required items to address the actual and threatened releases of hazardous substances at the Site.

The Order has been amended a few times. Significantly, as part of the Second Amendment to the Order, issued by the DTSC in 1994, the DTSC divided the Site into the following operable units: Operable Unit San Mateo¹ (“UPC OU-SM”), the Bayshore Railyard North Area; and Operable Unit 2 (“OU-2”), the Bayshore Railyard South Area. The Third Amendment to the Order, issued by the DTSC in 1995, required the installation and operation of a groundwater remediation system to address the contaminated groundwater plume on the upgradient Schlage Lock site, contaminated groundwater at the UPC OU-SM, and any soil containing volatile organic compounds (“VOCs”) on the UPC OU-SM that is impacted from the contaminated groundwater. In 1995, as part of a Fourth Amendment to the Order, the DTSC transferred lead agency authority for OU-2 to the San Francisco Bay Regional Water Quality Control Board (“Water Board”). In addition to the OU-2 area, the Water Board oversees the investigation and closure of the former Brisbane Landfill jointly with the San Mateo County Department of Environmental Health.

The Project includes the following three parcels:

- UPC OU-SM, an approximately 35-acre parcel of land within San Mateo County that was the northern portion of the SPTC Brisbane railyard property;

¹ UPC OU-SM is called out as Operable Unit One (“OU-1”) in the Order but was renamed as UPC OU-SM in a subsequent Consent Order in 2008.

- OU-2, an approximately 140-acre parcel of land that includes the southern portion of the SPTC Brisbane railyard property and an old industrial park; and
- Former Brisbane Landfill², an approximately 384-acre parcel of land that was formerly used as a landfill.

To comply with the amended Order, UPC prepared a draft FS/RAP for OU-SM and a draft FS/RAP for OU-2 and has submitted each to the respective regulatory agency (i.e., the DTSC for UPC OU-SM and the Water Board for OU-2) with oversight for approval. A FS/RAP is a detailed report that defines the nature and extent of contamination found on a property based on site characterization activities, outlines a plan of action to remediate the contamination by developing a cleanup strategy and alternatives to eliminate potentially harmful human health and environmental impacts, and evaluates which alternatives and proposed remedies will be used to achieve acceptable cleanup goals. Following preparation of the draft FS/RAPs, the DTSC and the Water Board will accept comments from the public and each will host a virtual public meeting to provide information on the FS/RAP under their respective oversight. The DTSC has not yet issued notice of the Draft Final FS/RAP for UPC OU-SM with a public comment period³; however, the Water Board issued notice of the Draft Final FS/RAP for OU-2 and the public comment period to review and comment on the draft will run from October 28, 2020 to December 18, 2020. Once the FS/RAPs have been approved, UPC will begin preparing the RDIP.

Environmental Review and Participation in FS/RAP Preparation

EKI and ELG have consulted and advised the City on the Project since 2018. Such work has included review of environmental documents; participation in meetings with the DTSC and the Water Board; participation in conference calls with UPC, its environmental consultants, community relations consultant, and counsel; participation in Brisbane Baylands Community Advisory Group (“BBCAG”) meetings; and participation in conference calls and meetings with the City representatives. Given the high level of public interest in the Project, the City and regulatory representatives were generally successful in convincing UPC that it was in UPC’s interest to work collaboratively with the City to address issues identified by EKI.

As reflected by the various iterations of the draft FS/RAP and the Draft Final FS/RAP below, EKI and ELG raised numerous concerns regarding the FS/RAPs, suggested revisions to the documents, and spent many hours working with UPC’s consultants and counsel to correct and implement changes to address identified concerns.

² UPC has not begun the preparation of remedial investigation or remedial action documents for the former Brisbane Landfill.

³ UPC expects the DTSC will issue notice of the Draft Final FS/RAP for UPC OU-SM on November 9, 2020 with a 45-day public comment period. Discussions regarding the Draft Final FS/RAP for UPC OU-SM pertains to the September 17, 2020 version.

To date, EKI and ELG have reviewed the following environmental documents for OU-SM and OU 2:

Area	Document	Date of Document Version
UPC OU-SM	Final Data Gap Investigation Work Plan	October 15, 2018
	Data Gap Investigation Report	December 21, 2018
	Draft FS/RAP and associated appendices	April 9, 2019; August 5, 2019; November 4, 2019; December 13, 2019; and December 23, 2019
	Draft Final FS/RAP and associated appendices	June 9, 2020; and September 17, 2020
OU-2	Data Gap Investigation Work Plan	November 27, 2018
	Draft FS/RAP and associated appendices	September 19, 2019; and February 19, 2020
	Draft Final FS/RAP and associated appendices	May 8, 2020; May 29, 2020; August 21, 2020; and September 17, 2020
Schlage Lock Operable Unit ⁴	FS/RAP and associated appendices	November 4, 2009

Proposed Preferred Remedial Alternative

UPC has selected Alternative 3: Land Use Restrictions, Soil Capping, and Excavation with Partial Onsite Relocation and Partial Offsite Disposal as the preferred alternative for UPC OU-SM and Alternative 3: Land Use Restrictions, Engineering Controls, Soil Capping and Excavation with Relocation and/or Offsite Disposal and/or Onsite Ex Situ Treatment, In Situ Groundwater Treatment and Monitoring as the preferred alternative for OU-2.

The remedial alternative selected for UPC OU-SM includes:

⁴ Schlage Lock Operable Unit includes the San Francisco County Portion of UPC Operable Unit for which the RAO was first issued to SPTC to cleanup the known releases of hazardous substances into soil and groundwater that are migrating onto UPC OU-SM. The Order required VOC impacted groundwater and soil to be addressed in the FS/RAP for the Schlage Lock Site.

- Capping of soil that contains chemicals of concern (“COCs”) at concentrations exceeding cleanup levels (“CULs”) in areas where significant fill (i.e., greater than 5 feet of fill) or other capping (e.g., foundations, roads) will be placed over existing soil;
- Excavation, partial off-haul and disposal, and partial relocation and capping of impacted soil that contains COCs at concentrations exceeding CULs in areas that will not be filled (capped);
- Soil vapor mitigation systems as part of future building construction, if required based on subsequent soil vapor testing and Site-specific risk assessment after remediation is completed;
- Land use restrictions including administrative actions and engineered actions; and
- Ongoing operation and maintenance of caps and any engineered systems such as soil vapor mitigation systems.

The remedial alternative selected for OU-2 includes:

- Capping of soil in portions of the Site that contain chemicals of potential concern (“COPCs”) at concentrations exceeding CULs. Capping includes placement of clean soil, building foundations, roads, parking pavement, or other hardscape over the existing or future land surface;
- Excavation of soil in portions of the Site that contains COPCs at concentrations exceeding CULs and where capping is not possible. Some excavated soil will be off-hauled and disposed of offsite and some soil will be relocated into onsite containment cells and capped. As an option to excavation, onsite treatment and reuse of soil containing potentially mobile petroleum hydrocarbons may be conducted;
- Treatment of CVOC-impacted groundwater and post-remediation groundwater monitoring;
- Land use controls consisting of the following components:
 - Soil vapor mitigation systems as part of future building construction, if required based on a soil vapor intrusion evaluation that will be conducted after mass grading and prior to building construction;
 - Land use restrictions including administrative actions and engineered actions; and
- Ongoing operation and maintenance of caps and any engineered systems such as soil vapor mitigation systems.

The preferred alternative selected for each operable unit appears to have the potential to adequately address soil, soil vapor, and groundwater contamination at the Site, subject to regulatory approval and implementation of the RDIPs, O&M Plans, soil vapor sampling plan, and other design documents. A discussion of the technical evaluation, collaboration with UPC, and recommended strategy for the City to continue efforts to ensure Measure JJ goals are achieved going forward is provided below.

Areas Where UPC Addressed Concerns Raised by City's Consultants

Since the first versions of the Draft FS/RAPs were provided by UPC to the City and the regulatory agencies, the City's consultants have been generally successful at getting UPC to modify the initially inadequate Draft FS/RAPs to provide more background and detail, implement more conservative thresholds and standards for the remedial design, and present the proposed remediation activities with more clarity to provide better public understanding. Issues of concern that were identified by EKI and addressed by UPC in the Draft Final FS/RAP include, but are not limited to, the following:

- Adding a discussion requiring that the selection of a remedial alternative must be in compliance with Measure JJ;
- Evaluating potential exposures for off-Site receptors and future maintenance workers in the Health Risk Assessment ("HRA");
- Applying a more acceptable attenuation factor in calculating the health risks of exposure to contaminants in soil vapor to indoor air in the HRA;
- Establishing CULs for groundwater and soil vapor, moreover, calculating more conservative CULs for soil vapor regarding exposure to commercial and industrial workers;
- Adding a remedial delineation of soil impacted with chlorinated volatile organic compounds ("CVOCs") area in OU-2, which would occur prior to preparation of the RDIP; as well as excavating impacted soil in the CVOC area of OU-2;
- Adding additional soil screening for pentachlorophenol ("PCP") in soil following demolition of existing buildings in the OU-2 area along Industrial Way to confirm PCP is not present in soil;
- Applying a more conservative screening value for arsenic when evaluating import fill;
- Adding information about future soil vapor sampling and measures to address potential vapor intrusion issues including a minimum of two rounds of indoor air sampling;
- Adding an agency approved Soil Management Plans ("SMP") that provide acceptable parameters for any capping, excavation, grading, trenching, or backfilling of contaminated soils;
- Adding Operation and Maintenance Plans ("O&M Plans") governed by O&M Agreements with the respective regulatory agencies to evaluate the effectiveness of the cap (for any contaminated soils capped onsite), maintenance of the cap, and to ensure compliance with Land Use Covenants ("LUCs");
- Evaluating O&M costs over a 30-year period (the standard length typically applied) instead of a 10-year period; and
- Adding an alternative that analyzes excavation of all impacted soils with offsite disposal and land use restrictions.

Outstanding Concerns Raised by City's Consultants

While the Draft Final FS/RAPs address many of the potential concerns identified by EKI, the level of detail provided in the documents for pre-design studies and actual implementation of the remedial alternatives is still limited and lacks critical information⁵. The Draft Final FS/RAPs indicate many specifics will be provided in the forthcoming RDIPs and O&M Plans that will be submitted to the applicable regulatory agencies for review and approval. Items raised by EKI on various occasions that UPC has acknowledged but pushed back on include the following:

- Adding a requirement that soils detected with levels of metals exceeding acceptable State regulatory limits must be excavated and disposed of offsite;
- Concerns with the lack of criteria allowing for the excavation and relocation of contaminated soils on Site;
- Concerns with the adequacy of sampling methods, and scope of characterization, including the failure to sufficiently evaluate baseline conditions for soil vapor due to the lack of recent soil vapor testing; and
- Concerns with how future soil vapor sampling and engineering control measures will be designed to address potential vapor intrusion issues in the forthcoming environmental documents.

Given UPC's position, and the regulatory agencies' acceptance, that many of these items will be addressed in the forthcoming RDIPs, O&M Plans, and/or other environmental documents subject to regulatory review and approval, it is imperative that the City requests and is provided a copy of these documents for review and coordination of comments with the applicable regulatory agencies. More specifically, EKI has identified and recommends performing a careful review of future submittals related to:

- Soil vapor sampling in both UPC OU-SM and OU-2;
- Vapor intrusion evaluations in both UPC OU-SM and OU-2;
- Vapor intrusion mitigation system designs for both UPC OU-SM and OU-2;
- Indoor air sampling for both UPC OU-SM and OU-2;
- Excavation of soil from the CVOC area in OU-2;
- In-situ groundwater remediation within the CVOC Area in OU-2;
- Post-demolition soil assessment in the Industrial Way area in OU-2;
- Long-term maintenance of the cap at UPC OU-SM and OU-2; and
- Import fill for UPC OU-SM and OU-2.

⁵ Specific information including preconstruction activities, excavation of soils, stockpiling and staging of soils, haul roads, traffic control elements, dust control and air monitoring programs, erosion control measures, and other details regarding the preferred remedial approach will be set forth in the RDIPs and O&M plans.

Additionally, as CVOC impacted groundwater and associated CVOC soil vapor in UPC OU-SM is to be addressed as part of the Schlage Lock Operable Unit remediation, continued evaluation of investigation, remediation and other reports submitted in connection with the Schlage Lock Operable Unit is recommended to ensure such work is consistent with Measure JJ.

Recommendation Going forward

It is anticipated that the Site can be remediated and redeveloped consistent with the requirements of Measure JJ; however, approval of the Draft Final FS/RAP by the respective regulatory agencies is just the beginning of achieving that outcome. Both the City and the public will be given an opportunity to comment on the Draft Final FS/RAPs during the public comment period. While many of the concerns identified by EKI and ELG were addressed, there are some items where UPC and the City could not come to an agreement. Thus, it would be in the City's best interest to write a comment letter that reiterates its concerns with the shortfalls of the Draft Final FS/RAPs and highlights its expectation that the respective regulatory agencies will conduct a more robust evaluation of future submittals in the remedial design in the forthcoming environmental documents/plans to ensure the project is developed consistent with Measure JJ.

The City should also request the opportunity to review and comment on the related plans and future environmental documents (at both UPC OU-SM and OU-2, as well as the Schlage Lock Operable Unit). As the Project is still in its initial design phase and a development agreement is still being negotiated, locations of public facilities including roads and utility corridors, and other land use categories that would transfer ownership from UPC to the City are subject to change. The City will want to pay special attention to any area impacted by contaminants that will be dedicated to it. Therefore, it is recommended that the City continue to take a deliberate and proactive approach of reviewing and commenting on future submittals related to the Site including implementation of the Draft Final FS/RAPs.

Very truly yours,



Kiana Amiri-Davani

K.

File Attachments for Item:

K. Short Term Rental Ordinance Implementation and Enforcement



CITY COUNCIL AGENDA REPORT

Meeting Date: November 19, 2020

From: John Swiecki, Community Development Director

Subject: Short Term Rental Ordinance Implementation and Enforcement

Community Goal/Result

Safe Community - Residents and visitors will experience a sense of safety

Community Building - Brisbane will honor the rich diversity of our city (residents, organizations, businesses) through community engagement and participation

Economic Development - Brisbane will work with the businesses and residents to provide for economic vitality/diversity

Purpose

To update the City Council on implementation of Ordinance 655 regulating short term rentals of less than 30 days.

Recommendation

That the City Council receive this report and provide direction it deems appropriate related to implementation and enforcement of the ordinance.

Background

Ordinance Adoption

On June 18, 2020, the City Council introduced Ordinance 655 to establish short term rental (STR) regulations, including the requirement for STR hosts to obtain a permit, banning unhosted rentals, and establishing other requirements for STRs. Ordinance 655 was adopted on September 3, 2020 and is currently in effect.

Outreach

The draft ordinance was subject to an extensive public engagement process far beyond Planning Commission and City Council public hearings. Once it was introduced, staff followed up with a comprehensive public outreach effort to communicate the ordinance effective date and procedural and substantive requirements. Outreach efforts included a new webpage, email blasts, social media posts, STAR articles, letters to affected parties, and signboard postings as outlined in Attachment 1.

Discussion

Current Status

Despite these outreach efforts, staff has received only one STR permit application to date, which was deemed ineligible for processing as the unit in question was an accessory dwelling unit (ADU) which cannot be used as an STR under the City's ordinance.

City staff is aware that Brisbane STR listings continue to be found on Airbnb and VRBO, despite the lack of issued STR permits. On a given week, staff has observed between 10-21 individual listings amongst the two common hosting websites. Recently, the City received a code enforcement complaint for numerous Airbnb listings. One complaint was nuisance-based, related to a large and loud party. The remaining complaints allege operation of an STR without a permit, without nuisance-related issues (noise, parties, parking).

As a reminder, the City's normal code enforcement process is complaint-driven and administered by city staff. In the case of the recent STR complaints, staff will verify property addresses to the extent feasible. In going through this process, if staff identifies other potential Brisbane listings not identified in the complaint, we will initiate enforcement action on these properties as well. Enforcement action involves working with property owners to legalize their listings via an STR permit, or to take down their listings if the units are ineligible for an STR permit or if the hosts are unwilling to comply with the permitting requirements.

Future Considerations

STR Enforcement

While it is not standard city practice, the City Council may wish to consider a proactive code enforcement strategy in regard to STRs. The recently-filed blanket STR complaint now under investigation will result in a "sweep" of current STR listings. While the outcome of this particular investigation is not yet known, the nature of STRs make ongoing enforcement problematic. For example, a specific complaint may be resolved by the removal of a listing, but it is possible that such a listing could reappear at a later time. Other listings could also come and go over time, and complaint-driven enforcement will only address the situation at a given moment in time. A proactive code enforcement approach would involve either city staff or outside consultant actively monitoring hosting sites on an ongoing basis and initiating code enforcement actions as needed.

City Regulations

Staff has not received specific feedback regarding why hosts have not applied for City STR permits to date. Lack of host awareness is unlikely given the extensive public outreach efforts undertaken. It is possible that the permit eligibility criteria (prohibiting unhosted rentals and STRs in ADUs) may preclude some operators from applying, or that operational standards (guest limits, parking, liability insurance etc.) may be viewed as barriers by operators. Perhaps

the current pandemic is impacting the STR industry and travel in general. In any event staff will continue to monitor City STR permit activity and report back to the City Council.

Fiscal Impact

Fiscal impacts may result should the City Council take a proactive code enforcement approach. There are consulting firms that specialize in monitoring STR listings and enforce compliance with City regulations. City staff contacted one such firm (Host Compliance) which estimated their annual monitoring cost at approximately \$10,000. Their services include regular crawling of STR hosting websites, address verification of listings, rental activity monitoring, and 24/7 phone and web hotline. To the extent that STR enforcement leads to new permits and payment of transient occupancy tax (TOT), consultant costs would be offset to some degree. However, if the enforcement activities primarily result in the elimination of STRs that cannot be permitted, little or no new revenue will result to offset consultant costs. As an alternate staff resources could be allocated to proactively enforce STR regulations. Depending on the number of potential violations and level of effort required to resolve them, required staff time could be substantial.

Measure of Success

Implementation and enforcement of the STR ordinance to ensure STRs are properly permitted.

Attachments

- 1. Public Outreach Activities

John Swiecki

John Swiecki, Community Development Director

Clayton L. Holstine

Clay Holstine, City Manager

Attachment 1

- June 2020
 - The Council's actions on June 18 were immediately announced in the City's Friday BLAST email newsletter and on the City's website on June 19, 2020.
- July 2020:
 - Letter from the City to all addresses/parties subject to previous code enforcement cases involving STRs.
 - Email notification to interested persons (110 residents) on July 24, 2020 announcing the permit application, FAQ, Guidebook, and other documents were live on City website, providing links to the relevant regulations, and stating the application deadline of September 16, 2020 for current hosts to obtain a permit.
- August and September 2020:
 - Friday BLAST postings on 8/7, 8/14, 8/21, 9/11/2020
 - Social media account posts on 8/7 and 9/8/2020 (over 500 impressions)
 - Signboard ad week of 8/17/2020
 - September 2020 issue of STAR featured a two-page article on the regulations and permit requirements (mailed the last week of August to all households in Brisbane).
 - Letter from the City to all parties subject to previous code enforcement cases involving STRs with instructions to apply for an STR permit if they wish to host STRs.
 - Updated City website with current ordinance information.

L.

File Attachments for Item:

L. Consider Approval of Ordinance No 658. to rescind Ordinance No. 656, an urgency ordinance that regulated short term rentals of residential properties in Brisbane



CITY COUNCIL AGENDA REPORT

Meeting Date: November 19, 2020

From: John Swiecki, Community Development Director

Subject: Short Term Rental Regulations- Adopt Ordinance 658
Rescinding Urgency Ordinance 656

Purpose

To rescind the urgency ordinance that regulated the short term rentals of residential properties in Brisbane. The non-urgency ordinance (Ordinance No. 655) that regulates short term rentals or residential properties in Brisbane went into effect on October 3, 2020 will not be affected by this action.

Recommendation

Introduce Ordinance No 658. to rescind Ordinance No. 656, an urgency ordinance that regulated short term rentals of residential properties in Brisbane.

Background

In June 2020, City Council introduced an ordinance (Ordinance No. 655) to allow permanent residents of single family dwellings to offer hosted rentals following the Zoning Administrator's approval of a short term rental permit and subject to operating standards, renewal requirements and standards to suspend or revoke a permit.

Typically an introduced ordinance must have one additional reading before the ordinance is adopted, and it is not effective until 30 days thereafter. Because City Council was not scheduled to meet over the summer, Ordinance No. 655, introduced on June 18, would not be adopted until September and would not be effective until October. Because of the community's concerns about the operation of short term rentals without regulations in place, Council not only introduced Ordinance No. 655 on June 18 but also, based on proper findings, adopted Ordinance No. 656 on an urgency basis, to take effect immediately upon its adoption. Ordinance No. 656 contains the same language and provisions as Ordinance No. 655, with the exception of a 90-day amnesty period provided for in the urgency Ordinance No. 656. The amnesty period was intended to allow for any operating short term rentals to file, obtain approval, and satisfy the conditions of approval of the required permits from the City. Any owner operating short term rental without required City permits after the amnesty period would be subject to Code enforcement action.

Council held a second reading of Ordinance No. 655 on September 3, 2020 and it became effective October 3, 2020.

Discussion

Given that Ordinance No. 655 is in full force and effect and regulates the operation of short term rentals in Brisbane, there is no longer any reason for the urgency ordinance. The attached ordinance (Attachment 1) rescinds Ordinance No. 656.

Fiscal Impact

There is no fiscal impact in adopting the ordinance to rescind Ordinance No. 656.

Attachments

1. Ordinance No. 658

John Swiecki

John Swiecki, Community Development Director

Clayton L. Holstine

Clay Holstine, City Manager

ORDINANCE NO. 658

AN ORDINANCE OF THE CITY OF BRISBANE RESCINDING ORDINANCE NO. 656 ADOPTED AS AN URGENCY ORDINANCE ON JUNE 18, 2020

WHEREAS, on June 18, 2020, City Council adopted on an urgency basis Ordinance No. 656 concerning short term rentals in the City of Brisbane; and

WHEREAS, also on June 18, 2020, City Council introduced on a non-urgency basis Ordinance No. 655 concerning short term rentals in the City of Brisbane; and

WHEREAS, City Council adopted Ordinance No. 655 on September 3, 2020 and Ordinance No. 655 went into effect on October 3, 2020 and remains in full force and effect; and

WHEREAS, there is no longer any need for Ordinance No. 656 as its operative provisions are embedded in Ordinance No. 655.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BRISBANE ORDAINS AS FOLLOWS:

Section 1. Ordinance No. 656 is rescinded in its entirety.

Section 2. This Ordinance shall be effective 30 days after its passage and adoption.

* * *

The above Ordinance was regularly introduced and after the waiting time required by law was thereafter passed and adopted at a regular meeting of the City Council of the City of Brisbane held on December 10, 2020, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Terry O’Connell, Mayor

ATTEST:

Approved as to form:

Ingrid Padilla, City Clerk

Thomas McMorrow, City Attorney

M.

File Attachments for Item:

M. Use of Housing Authority Funds to assist Low-Moderate Renters/Homeowners with Payments Due to COVID-19 Related Issues

(Council will consider allocating \$100,000 of Housing Authority Low Income Funds for the purpose of rental and mortgage assistance)



HOUSING AUTHORITY AGENDA REPORT

Meeting Date: 10/15/2020

From: Stuart Schillinger, Deputy City Manager

Subject: Use of Housing Authority Funds to assist Low-Moderate Renters/Homeowners with Payments Due to COVID-19 Related Issues.

Community Goal/Result

Community Building

Purpose

Assist residents of Brisbane who have been negatively impacted by COVID-19, which caused them to miss rental or mortgage payments.

Recommendation

Allocate \$100,000 of Housing Authority Low Income Funds for the purpose of rental and mortgage assistance.

Background

The State and the County have passed legislation that, as a practical matter, prohibit until February 2021 the eviction of residential home owners and tenants who are unable to make the mortgage or rent payments due to COVID-19 related issues, assuming, for tenants, that they pay a certain percentage of their rent between September 1, 2020 and the end of January 2021 and comply with certain notice requirements to their landlord if they are served with a notice to quit or pay rent. Nevertheless, the unpaid amounts will need to be repaid meaning that double payments will be required until the deferred rent has been repaid.

Discussion

The Housing Authority is allowed to use up to \$100,000 on an emergency basis to allow homeowners and renters to stay in their homes.

The process for determining who would be eligible will be difficult. The applicants would need to meet the income guidelines for low-moderate households within San Mateo County. They would also need to show that they had missed mortgage or rent payments due to a COVID-19 related reason.

Use of Housing Authority Funds to assist Low-Moderate Renters/Homeowners with Payments Due to COVID-19 Related Issues.

Currently, the City does not have access to this information and it would need to set up an application method if the Housing Authority wishes to pursue this type of program. If the Housing Authority wishes to set up this program, staff will report in November or December with various methods for administering the program.

For example, the County has a county-wide program to assist renters by providing funds to landlords up to a certain dollar amount if they forgive the rent owed. The Housing Authority would want to make sure any program it has does not conflict with or duplicate this program.

Other examples include the Santa Rosa which has a City program for rental assistance, which provides one-time assistance to households below 60% of the Area Median Income. The City of Vista has a program that allows for up to 3 months' rent (maximum of \$5,000). The City of Downey had a program which allows for a maximum of one-month rent for low and moderate income households San Marcos' program was for people who had a household income of 80% of the Area Median Income and provided rental assistance for up to 6 months of rent, to a maximum of \$10,000.

There are enough other programs in order for staff to recommend what would be the best fit Brisbane and meet the guidelines for the use of Housing Authority funds for this purpose. Other cities are using Community Development Block Grant, which the City/Housing Authority does not receive directly.

Fiscal Impact

The Housing Authority's Lower Income Housing Fund has \$1,900,000. Therefore, there is enough money available if the Housing Authority wishes to allocate \$100,000 towards this purpose.

Measure of Success

Assist Brisbane residents in staying in their homes who were financially impacted by COVID-19.

Stuart Schillinger

Stuart Schillinger, Deputy City Manager

Clayton L. Holstine

Clay Holstine, City Manager

Suggested City Program

Eligibility

- 1) Income at 80% or lower of AMI prior to pandemic based on 2019 tax return
 - a. We might want to have this be higher up to 100% of AMI
 - b. We might want people who have fallen into this category due to the pandemic be eligible
- 2) Show impact of COVID-19 on Income
 - a. Notification of job loss/termination during pandemic
 - b. Notification of furlough during pandemic
 - c. Notification or employer signed form confirming reduction in hours
 - d. Application for or approval of Unemployment Insurance benefits
 - e. Notarized affidavit signed that includes the name of the household member who is self-employed, the name and nature of the business, and narrative confirming economic impact on self-employment during pandemic
- 3) Live in Brisbane
- 4) Not related to landlord
- 5) Have signed Rental Agreement
- 6) Have accumulated rent past due
- 7) Not receiving other COVID-19 related COVID assistance
 - a. We might want to waive this to provide people with maximum amount of assistance

Grants

- 1) Up to 80% of rent for 3 months.
 - a. The number of months or the percent may be different
- 2) Payments to Landlord.
 - a. Landlord needs to forgive the balance

Application Process

- 1) Can apply only once
- 2) Applications taken for a 10 day period for each month the City is in a declared emergency
 - a. Or we might want to do this as a one-time process. The downside of doing it only once is different households might be impacted at different times

Background Information

California

- Can't be evicted before 2/1/2021
 - COVID related hardship between March 4 – 1/20/21
 - If can't pay between 9/1/20 and 1/31/21
 - Must pay 25 of rent due to avoid eviction

San Mateo County

- Small Property Owner Assistance – Property Owners apply

- 2 week application
- Landlord must live in San Mateo county and lease property within County, earned income less than \$400,000
- Rental unit must not exceed 2020 HUD Fair Market threshold for San Mateo County
 - Studio - \$2,197
 - 1-Bedroom - \$2,720
 - 2-Bedroom - \$3,339
 - 3-Bedroom -\$4,365
 - 4-Bedroom -\$4,657
- Demonstrated losses between April 1, and August 31, 2020
- Grant up to 80% of rent owed to a maximum of \$6,000
 - Examples
 - \$5,000 owed Landlord receives \$4,000 all \$5,000 forgiven
 - \$7,500 owed Landlord receives \$6,000 all \$7,500 forgiven
 - \$10,000 owed Landlord receives \$6,000 \$7,500 forgiven renter still owes \$2,500
- Menlo Park
 - \$100,000
 - Administered by Samaritan House
- Housing Industry Foundation
 - Grant up to \$2,500 for people who can't make rent due to "no-fault" of renter.
 - Medical costs, injury, temporary loss of income, unanticipated expenses, or victim of a crime

Other areas

- Santa Clara
 - Reside in Santa Clara
 - Accumulated past due rent since April 2020
 - Household income does not exceed 80% of Area Median Income
 - Needed to qualify
 - 2019 Tax return (if self-employed)
 - Bank statements from June – September
 - Pay stubs June – September
 - Two proof of residency
 - Unemployment benefit statement if applicable
 - Copy of most recent lease agreement
 - Amount of assistance 85% of the Actual Rent or Fair Market rent
 - \$1,577 - \$7,240 depending on number of bedrooms
- San Diego
 - Provide one-time payment of up to \$4,000 – paid directly to landlord
 - San Diego address
 - Household income in January 2020 was at or below of 60% of San Diego Area Median Income (AMI)
 - Not currently receiving rental subsidies

- Not a tenant of the San Diego Housing Commission
- Household does not have savings to meet financial needs
- Household as eligible immigration status
- Household experiencing hardship directly related by COVID-19
- Priority given to
 - Families with minor children
 - Household with at least one person 62 or older
- Santa Rosa
 - Household income at or below 60% of the Area Median Income
 - Loss or decrease in wages due to COVID-19 pandemic
 - At least one member of the household who is a documented U.S. citizen
 - Up to \$12,000 per household
- San Marcos
 - Funded through CDBG
 - Up to \$10,000 per household
 - Income requirement no more than 80 of AMI
 - Up to 6 months of partial or full rent
 - Were current prior to March 16 ,2020
 - Not related to the property owner
- Temecula (Through a Riverside County program)
 - Applications open every month for a 10 day period
 - Up to \$3,500 to cover past rent (April – November)
 - Lease Agreement
 - Documented COVID-19 related financial impact
 - Can only apply once per household
 - Landlord receives payment
 - Rent cannot exceed 150% of Fair Market Rent
- Downey
 - Reside in Downey
 - Household Income does not exceed Moderate Income level
 - Impacted by COVID-19 on or after April 1, 2020
 - Current residential lease agreement
 - Confirmed rental balance
 - Paid to Landlord
 - Up to 1 month of rent
 - How to document loss of income
 - Notification of job loss/termination during pandemic
 - Notification of furlough during pandemic
 - Notification or employer signed form confirming reduction in hours
 - Application for or approval of Unemployment Insurance benefits
 - Notarized affidavit signed that includes the name of the household member who is self-employed, the name and nature of the business, and narrative confirming economic impact on self-employment during pandemic