



(ACT) ACTION NEEDED
(INF) INFORMATION ONLY
(DIS) DISCRETIONARY

AGENDA

ADJOURNED REGULAR MEETING OF THE
BOARD OF PUBLIC UTILITIES OF THE
CITY OF NEEDLES, CALIFORNIA
TUESDAY, OCTOBER 1, 2024 AT 4:00 PM
EL GARCES HISTORIC DEPOT
950 FRONT STREET, NEEDLES

THE PUBLIC MAY ATTEND VIA TEAMS AND MAY SUBMIT ANY COMMENTS
IN WRITING PRIOR TO NOON ON THE DAY OF THE MEETING BY
EMAILING csallis@cityofneedles.com

TO JOIN THE LIVE TEAMS MEETING: log into the City of Needles website at
www.cityofneedles.com to access the agenda and [click here to join the meeting](#)

If asked, enter the following: Meeting ID: 738 614 315#
OR listen in and participate by calling Teams: 1-323-488-2227 - Meeting ID: 738 614 315#
Meetings are being recorded

CALL TO ORDER - ROLL CALL

APPROVAL OF AGENDA

(ACT)

CORRESPONDENCE

PUBLIC APPEARANCE: Persons wishing to address the Board on subjects other than those scheduled are requested to do so at this time. When called by the Chairman, please come to the podium and announce your name and address for the record. In order to conduct a timely meeting, a three minute time limit per person has been established by Municipal Code Section 2-18. Amendments to California Government Code Sec. 54950 prohibits the Board from taking action on a specific item until it appears on the agenda.

CONSENT CALENDAR: All matters listed on the Consent Calendar are considered to be routine and will be enacted by one motion in the form listed. The Chairman or any Member of the Board may pull an item from the Consent Calendar for discussion. Prior to Board action, a member of the public may address the Board on matters scheduled on the Consent Calendar. A three-minute time limit per person applies. **Recommended Action:** Approve Items 1 through 5 on the Consent Calendar by affirmative vote (ACT)

- [1.](#) Minutes of adjourned regular meeting held September 3, 2024
- [2.](#) Authorize the purchase of two pumps for the Bazoobuth Lift Station from Brax at a cost not to exceed \$35,000 to be funded with Wastewater Asset Replacement funds
- [3.](#) Authorize the City Manager to execute the California Colorado River Contractors Forbearance Agreement for 2024-2026 with the Coachella Valley Water District, Imperial Irrigation District, Palo Verde Irrigation District and Metropolitan Water District of Southern California to allow water to be conserved under the U.S. Bureau of Reclamation conservation program to be added to Lake Mead
- [4.](#) Authorize the City Manager to execute the Physical Security Exemption letter dated October 1, 2024 and to submit to the California Public Utilities Commission
- [5.](#) Adopt the 2024 Needles Public Utility Authority Wildfire Mitigation Plan Version 5.0

REGULAR ITEMS (A three minute time limit per person has been established per Municipal Code Section 2-18)

6. Accept the Engineering Evaluation & Feasibility Study, Needles Solar Energy Sites Evaluation dated August 12, 2024 as prepared by Unisol Solar Energy Solutions (ACT)

REPORTS

(INF)

7. EUSI, LLC operational support services relating to the wastewater treatment facility and collection system August 2024
8. Present Perfected Rights (PPR) Report August 2024

PENDING MATTERS (not for discussion at this time)

[Arc](#) Flash Study System Improvements Cost Estimate and Timeline Report (per Board action on April 4, 2023)

[Report](#) on Park Moabi powerline after November 2024 election (Board request on July 2, 2024)

MANAGER'S REPORT

9. Manager's Report September 13 and 20, 2024

BOARD REQUESTS

ADJOURNMENT

Posted: September 26, 2024

INTERNET ACCESS TO BOARD AGENDA AND STAFF REPORT MATERIAL IS AVAILABLE PRIOR TO THE MEETING AT: [HTTP://WWW.CITYOFNEEDLES.COM](http://www.cityofneedles.com)

SB 343-DOCUMENTS RELATED TO OPEN SESSION AGENDAS -- Any public record, relating to an open session agenda item, that is distributed within 72 hours prior to the meeting is available for public inspection at the City Administrative Office, 817 Third Street, Needles, CA 92363.

In compliance with the American with Disabilities Act, if you need special assistance to participate in this meeting, please contact Cheryl Sallis, Secretary to the Board, at (760) 326-2113 ext 115. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting (28 CFR 35.102-104 ADA Title II).

BOARD OF PUBLIC UTILITIES

September 3, 2024

The adjourned regular meeting of the Board of Public Utilities held on the 3rd day of September, 2024, was called to order at 4:00 p.m. with CHAIRMAN CAMPBELL presiding and the following COMMISSIONERS present:

COMMISSIONERS LeJEUNE, MOFFITT AND McNEIL

Also Present: SECRETARY SALLIS, CITY MANAGER MARTINEZ, UTILITY MANAGER TORRANCE AND OTHER KEY STAFF

EX ABSNC COMMISSIONER McNEIL MOVED, SECONDED BY COMMISSIONER LeJEUNE, to grant an excused absence to COMMISSIONERS BROWN AND SCHNEIDER. Motion carried by the following roll call vote:

AYES: CHAIRMAN CAMPBELL, COMMISSIONERS LeJEUNE,
MOFFITT AND McNEIL
NOES: NONE
ABSENT: COMMISSIONERS BROWN AND SCHNEIDER

APPROVAL COMMISSIONER McNEIL MOVED, SECONDED BY COMMISSIONER
AGENDA MOFFITT, to approve the agenda. Motion carried by the following roll call vote:

AYES: CHAIRMAN CAMPBELL, COMMISSIONERS LeJEUNE,
MOFFITT AND McNEIL
NOES: NONE
ABSENT: COMMISSIONERS BROWN AND SCHNEIDER

CORSPNDN: None

PBLC APRN: None

CNST CAL: COMMISSIONER McNEIL MOVED, SECONDED BY COMMISSIONER MOFFITT, approve consent calendar items 1 through 4.

1. Minutes of regular meeting held May 21, 2024
2. Minutes of adjourned regular meeting held July 2, 2024
3. Accept the AB32 Greenhouse Gas (GHG) Emissions Verification Report 2023 Emissions prepared by WZI Inc.
4. Authorize the purchase of a Digger Derrick Model TLL-300D electric bucket truck from LineWise at a cost not to exceed \$33,500 using Electric Asset Replacement Funds

Motion to approve item 1 carried by the following roll call vote:

AYES: CHAIRMAN CAMPBELL, COMMISSIONERS MOFFITT
AND McNEIL

NOES: NONE
ABSENT: COMMISSIONERS BROWN AND SCHNEIDER
ABSTAIN: COMMISSIONER LeJEUNE

Motion to approve item 2 carried by the following roll call vote:

AYES: CHAIRMAN CAMPBELL, COMMISSIONERS LeJEUNE
AND MOFFITT
NOES: NONE
ABSENT: COMMISSIONERS BROWN AND SCHNEIDER
ABSTAIN: COMMISSIONER McNEIL

Motion to approve items 3 and 4 carried by the following roll call vote:

AYES: CHAIRMAN CAMPBELL, COMMISSIONERS LeJEUNE,
MOFFITT AND McNEIL
NOES: NONE
ABSENT: COMMISSIONERS BROWN AND SCHNEIDER

REG ITEMS: Utility Manager Torrance provided a PowerPoint presentation on the cost-of-living (COLA) increase in water, wastewater, and electric (next agenda item) and how the rates are determined. She reminded the Board that the city cannot collect revenue beyond that needed to provide services and noted that the current \$0.01 overhydro power cost adjustment (PCA) is proposed to be removed with this COLA as the PCA has a positive balance of \$622,462 collected through the additional 1¢.

2.8% COLA
WTR & WW

COMMISSIONER MOFFITT MOVED, SECONDED BY COMMISSIONER McNEIL, to approve a 2.8.% cost-of-living (COLA) increase in water and wastewater basic service rates effective October 1, 2024. Motion carried by the following roll call vote:

AYES: CHAIRMAN CAMPBELL, COMMISSIONERS LeJEUNE,
MOFFITT AND McNEIL
NOES: NONE
ABSENT: COMMISSIONERS BROWN AND SCHNEIDER

2.8% COLA
ELECTRIC

CHAIRMAN CAMPBELL explained that, as of today, the California average for electricity is 38¢ per kilowatt and Needles is \$0.1423 which does not include the blended hydro rate of about 12.8-13.2¢. The national average is 19¢ per kilowatt.

COMMISSIONER MOFFITT MOVED, SECONDED BY COMMISSIONER LeJEUNE, to approve a 2.8% cost-of-living (COLA) increase in electric basic service charge rate as of October 1, 2024; approve an over-hydro rate of \$0.1423 effective October 1, 2024; eliminate the \$.0100 Power Cost Adjustment and approve the methodology to calculate the annual electric base rate and the power cost adjustment rate based on the rate calculation spreadsheets. Motion carried by the following roll call vote:

AYES: CHAIRMAN CAMPBELL, COMMISSIONERS LeJEUNE,
 MOFFITT AND McNEIL
 NOES: NONE
 ABSENT: COMMISSIONERS BROWN AND SCHNEIDER

Rates as of September 1 and October 1, 2024 as applicable:

	<u>Current</u>	<u>Effective Oct 1, 2024</u>
Basic Service Charge	\$35.23	\$36.22
Winter Hydro (Oct – Feb)	\$.0740 – 402 kwh allotment	\$.0818– 401 kwh
Summer Hydro (Mar – Sept)	\$.0650 – 757 kwh allotment	\$.0704 – 754 kwh
Over-hydro	**\$0.1638	*\$0.1423
CA Energy Efficiency Program	\$0.0025	\$0.0025
Utility Users Tax (UUT)	2.5% on all of the above	2.5% on all of the above

** Rate included a \$.01 PCA. As of July 2024, the Power Cost Adjustment has a positive balance of \$622,462. Proposed rates eliminate the additional \$.01 PCA

The revised statement of policies adopted increased the power cost adjustment (PCA) balance from \$750,000 to be twenty percent (20%) of the yearly over-hydro budgeted power costs for the fiscal year (annual budget or revised budget as applicable).

REPORTS: CHAIRMAN CAMPBELL acknowledged the following reports: 1)) EUSI, LLC operational support services relating to the wastewater treatment facility and collection system June and July 2024; 2) Present Perfected Rights (PPR) report June and July 2024; and 3) Monthly Activity Report April and May 2024

City Manager Martinez reported that a letter was received from the US Dept of Interior, Bureau of Reclamation, notifying of a Tier 1 Shortage Condition and Drought Contingency Plan (DCP) and that the water allotment to Arizona and Nevada will be cut in 2025 but California is not affected at this time. Arizona is being cut 18% and Nevada 7% of each state's annual basic appropriation while California has no shortage reduction.

MGR’S RPT: Utility Manager Torrance reported: 1) received the final draft report for the Alternative Energy Ad Hoc Committee to review so will be setting up a meeting and will bring back to this Board in October; 2) a rate study request for proposals (RFP) has been issued and will close on October 1 and to the Board the 2nd meeting in October; 3) will be canceling the September 17 meeting due to lack of agenda items at this time; and 4) historical high electric peak was seen July 4 at 28 megawatts with the previous year at 24. The load was a holiday weekend load and she spoke on term and spot purchase of electric power.

City Manager Martinez referenced his weekly manager's reports included in the packet and noted that Needles experienced the hottest July on record. He thanked the Board for the increase in rates and commended staff for purchasing power out through December with the hopes of one more purchase before the November election.

September 3, 2024

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BRD RQSTS: COMMISSIONER McNEIL thanked the Needles Desert Star for putting the city manager's reports in the newspaper and sharing the information with the community.

COMMISSIONER LeJEUNE asked for an update on the Park Moabi line to which Utility Manager Torrance reported she's met with PG&E and they've asked for a proposal to connect their entire operations to our system. If this can be accomplished, our electric utility will be set up far into the future. PG&E is being pressured to do more green and this will be long term planning and discussion but there are several options on the transmission line coming into Needles.

CHAIRMAN CAMPBELL declared the adjourned regular meeting of the Board of Public Utilities held on the 3rd day of September, 2024, adjourned at 4:27 p.m.

ATTEST: _____

Chairman

Secretary



City of Needles, California Request for Commission Action

CITY COUNCIL BOARD OF PUBLIC UTILITIES Regular Special

Meeting Date: 10/1/2024

Title: Authorize the purchase from Brax for two pumps for Bazoobuth Lift Station not to exceed \$35,000 from Wastewater Asset Replacement

Background: The current pumps at Bazoobuth Lift Station were purchased used around about 1994. There are two 600 gpm Gorman Rupp pumps. Due to the age of the pumps, parts are now obsolete and extremely difficult to locate, and shops can no longer repair them. The proposed new pumps are exactly the same model as the existing pumps. By updating the pumps the parts will be readily available. The new pumps will operate more efficiently and there will be less of a possibility having a serious issue that would not be able to be fixed. Wastewater employees can install the new pumps as they are direct replacements and bolt in place pumps. The estimated time span could exceed 20-30 years with the new pumps if not longer with the current maintenance operation in place.

Fiscal Impact: Wastewater asset replacement has a fund balance of \$164,025 as of June 2024.

Environmental Impact: N/A

Recommended Action: Authorize the purchase from Brax for two pumps for Bazoobuth Lift Station not to exceed \$35,000 from Wastewater Asset Replacement

Submitted By: Sy Foley, Wastewater Operator I

City Manager Approval: Rainie Torrance for Patrick Martinez

Date: 9/25/24

Other Department Approval (when required): [Signature]

Date: 9/25/24

Approved: <input type="checkbox"/>	Not Approved: <input type="checkbox"/>	Tabled: <input type="checkbox"/>	Other: <input type="checkbox"/>
			Agenda Item: _____



PROCESS AND PUMP EQUIPMENT

31248 Valley Center Rd | Valley Center CA 92082 | 760 749-2209

2115 S. Hellman Suite H | Ontario CA 91761 | 909 923- 9809

4630 Easton Dr. #4 | Bakersfield CA 93309 | 661 432 -2729

Bill To:

CITY OF NEEDLES
WASTEWATER DEPT
817 THIRD STREET
NEEDLES, CA 92363

Ship To:

SAME AS BILL TO

Quote

Quote # 56567
Date 9/17/2024
Sales Person MG
Written By TRACY BENNETT
Terms CWO
Freight PREPAID & ADD

Project

Part Number	Qty	Description	Unit	Total
BRAX CO.	2	GORMAN RUPP PUMP T6A3S-B/F 6" SUPER T SERIES CI W/FLANGE	10,932.00	21,864.00T
BRAX CO.	2	GORMAN RUPP CHECK VALVE (LH) PART# 46421-416	1,675.00	3,350.00T
BRAX CO.	2	GORMAN RUPP CHECK VALVE (RH) PART# 46421-417	1,675.00	3,350.00T
FREIGHT	1	FREIGHT PPD & ADD (ESTIMATED) FOB: SHIPPING POINT 4-6 WEEKS	2,000.00	2,000.00
CONVENIENCE FEE	1	3.50% CONVENIENCE FEE (ESTIMATED)	1,069.74	1,069.74

CLSB 487325 CAGE 6U1W7 DIR 1000441272

Sales Tax (0.0%)

\$0.00

(A 3.5% SURCHARGE WILL BE ADDED TO ALL CREDIT CARD PAYMENTS)

Total

\$31,623.74

ALL SALES SUBJECT TO TERMS AND CONDITIONS AT WWW.BRAXCOMPANY.COM

Item 2.



City of Needles, California Request for Commission Action

CITY COUNCIL BOARD OF PUBLIC UTILITIES Regular Special

Meeting Date: October 1, 2024

Title: Authorize the City Manager to execute the California Colorado River Contractors Forbearance Agreement for 2024-2026 with Coachella Valley Water District, Imperial Irrigation District, Palo Verde Irrigation District and the Metropolitan Water District of Southern California to allow water to be conserved under the U.S. Bureau of Reclamation's conservation program to be added to Lake Mead

Background: Staff seeks authorization for the City Manager to enter into an agreement to allow water to be added to Lake Mead according to funding provided by the U.S. Bureau of Reclamation's (Reclamation) Lower Colorado Conservation Program (LC Conservation Program).

This agreement demonstrates how multi-agency partnerships can benefit the Colorado River. Staff specifically seek authorization to enter the following agreements: A forbearance agreement among Metropolitan, Palo Verde Irrigation District (PVID), Imperial Irrigation District (IID), Coachella Valley Water District (CVWD), and the Metropolitan Water District of Southern California that will cover conservation actions taken by CVWD and IID under the LC Conservation Program in 2024, 2025, and 2026.

The LC Conservation Program

The 2021 Bipartisan Infrastructure Law and the 2022 Inflation Reduction Act both seek to fund water management and conservation efforts to relieve drought conditions in the western United States, with a focus on the Colorado River. The Department of the Interior, through Reclamation, created the LC Conservation Program to increase system conservation and efficiency opportunities to address the drought in the Lower Colorado River Basin. Similar conservation programs are being developed in the Upper Colorado River Basin. The LC Conservation Program provides funding opportunities for voluntary participation to increase system conservation.

A total of six conservation agreements have been or are being developed in California under Bucket 1 of the LC Conservation Program to help California conserve 400,000 AF of water annually from 2023–2026.

A forbearance agreement among Metropolitan, PVID, IID, CVWD, and the City of Needles is needed to cover conservation from all six conservation agreements from 2024-2026. Forbearance is necessary for these actions because, under the California priority system, Colorado River water conserved by a higher-priority user is available to the next lower-priority user. Thus, as part of a program to fund the conservation of Colorado River water, contractors need to agree to forbear exercising their rights to ensure that the conserved water remains in the Colorado River system rather than becoming available to the next lower-priority user. Before entering into any forbearance agreement, City and Legal staff will review the underlying agreements between Reclamation and the contractors to ensure that City of Needles's rights as the senior priority in California are protected.



City of Needles, California Request for Commission Action

First, forbearance is needed for an agreement between Reclamation and CVWD to fund a reduction in groundwater replenishment by up to 35,000 acre-feet per year in 2024 and 2025 at \$400 per acre-foot.

Second, forbearance is needed for an agreement between Reclamation and CVWD to fund agricultural conservation from 2024–2026 at \$400 per acre-foot. Under the agreement with CVWD, up to 10,000 acre-feet of conserved water from a new agricultural conservation program will be left in Lake Mead as system water each year. The new conservation program currently covers full-season fallowing and retirement of permanent crops.

Third, forbearance is needed for an agreement being developed between Reclamation and IID to fund agricultural conservation from 2024-2026 at a rate that is based on the rate paid by SDCWA to IID for SDCWA’s transfer supplies. Under the proposed agreement, IID would conserve and leave in Lake Mead as system water, up to 300,000 acre-feet per year with a three-year cumulative maximum of 700,000 acre-feet. This conserved water could come from IID’s existing on-farm conservation program, a new deficit irrigation program, or an updated farm-unit fallowing program. IID’s board approved a supplemental payment to their existing On-Farm Efficiency Conservation Program to incentivize increased conservation savings from the existing on-farm program. IID’s board also approved the implementation of a new deficit irrigation program where farmers would cease irrigation on alfalfa, bermuda, or klein grass for a period of 45–60 days.

Fiscal Impact: The proposed forbearance agreement has no impact on the City of Needles

Environmental Impact: With the forbearance of these three additional conservation programs, over 800,000 AF of water will be added to Lake Mead over three years, increasing elevation by approximately 10 feet. All parties benefit from increased Lake Mead elevation, power generation, and reliability of Colorado River water supplies.

Recommended Action: Authorize the City Manager to execute the California Colorado River Contractors Forbearance Agreement for 2024-2026 with Coachella Valley Water District, Imperial Irrigation District, Palo Verde Irrigation District and the Metropolitan Water District of Southern California to allow water to be conserved under the U.S. Bureau of Reclamation’s conservation program to be added to Lake Mead

Submitted By: Rainie Torrance, Utility Manager

City Manager Approval: Rainie Torrance for Patrick Martinez Date: 9/25/24

Other Department Approval (when required): _____ Date: _____

Approved: <input type="checkbox"/>	Not Approved: <input type="checkbox"/>	Tabled: <input type="checkbox"/>	Other: <input type="checkbox"/>
			Agenda Item: _____

**California Colorado River Contractors Forbearance Agreement for 2024-2026
Conservation Agreements Under the Lower Colorado Conservation and Efficiency
Program**

Coachella Valley Water District, Imperial Irrigation District, The Metropolitan Water District of Southern California, Palo Verde Irrigation District, and the City of Needles, each of which is a “Party” and together are the “Parties,” enter into this Agreement as follows:

Recitals

A. Each of the Parties to this Agreement is a California Colorado River contractor pursuant to a contract with the Secretary of the Interior for delivery of Colorado River water under Section 5 of the Boulder Canyon Project, which contracts, together with subsequent agreements among some or all the Parties or among some or all of the parties and the United States Department of Interior Bureau of Reclamation, and along with applicable State and Federal laws, define the rights of each Party to request and receive delivery of Colorado River water for diversion for beneficial uses within the State of California.

B. Several of the Parties are individually or collectively engaging in programs to conserve Colorado River water to assist in maintaining storage in the Colorado River reservoirs to help prevent the reservoirs from declining below critical elevations as a result of recent hydrologic conditions in the Colorado River system.

C. In 2023, the Parties entered into the California Colorado River Contractors Forbearance Agreement for 2023 Conservation Agreements Under the Lower Colorado Conservation and Efficiency Program to provide assurance that no Party would claim a right to the benefit of, the delivery of, or to the diversion of certain water conserved during 2023 in order to enable that water to increase storage in the Colorado River reservoirs.

D. The purpose of this Agreement is to provide assurance that no Party will claim a right to the benefit of, the delivery of, or to the diversion of the water conserved beginning in 2024 and through 2026 under the Conservation Programs listed below in order to enable the water conserved to increase storage in the Colorado River reservoirs.

Now THEREFORE, in consideration of the agreements and covenants herein, the Parties agree as follows:

Forbearance

1. Each of the Parties hereby forbears any claim to the benefit of, to divert, or to seek the delivery of Colorado River water conserved by any of the following programs (“Conservation Programs”):

a. The System Conservation Implementation Agreement (SCIA) between the United States Bureau of Reclamation and the Coachella Valley Water District to Implement the Lower Colorado Conservation and Efficiency Program (LC Conservation Program) based upon temporary and

compensated conservation of Colorado River water historically used to recharge groundwater aquifers, SCIA No. 23-XX-30-W0764 dated July 24, 2023 (up to 35,000 acre-feet/year in 2024 and 2025).

b. The System Conservation Implementation Agreement between the United States Bureau of Reclamation and the Coachella Valley Water District to Implement the Lower Colorado Conservation and Efficiency Program (LC Conservation Program) based upon temporary and compensated conservation of Colorado River water historically used for irrigation of lands within Coachella Valley Water District, SCIA No. 23-XX-30-W0821 dated March 28, 2024 (up to 10,000 acre-feet/year from 2024-2026).

c. The System Conservation Implementation Agreement between the United States Bureau of Reclamation and The Metropolitan Water District of Southern California to implement a Lower Colorado Conservation and Efficiency Program (LC Conservation Program) based upon temporary and compensated conservation of Colorado River water historically used for irrigation of lands within the Palo Verde Irrigation District, SCIA No. 23-XX-30-W0772 dated December 13, 2023 (up to 117,021 acre-feet/year from 2024-2026).

d. The System Conservation Implementation Agreement between the United States Bureau of Reclamation and the Imperial Irrigation District to implement a Lower Colorado Conservation and Efficiency Program (LC Conservation Program) based upon temporary and compensated conservation of Colorado River water historically used for irrigation of lands within Imperial Irrigation District's service area, SCIA No. 24-XX-30-W0825 dated August 26, 2024 (up to 300,000 acre-feet/year with a cumulative total not to exceed 700,000 acre-feet from 2024-2026).

e. The System Conservation Implementation Agreement among the United States Bureau of Reclamation, The Metropolitan Water District of Southern California, and the Bard Water District to implement a Lower Colorado Conservation and Efficiency Program (LC Conservation Program) based upon temporary and compensated conservation of Colorado River water historically used for irrigation of lands within Bard Water District, SCIA No. 23-XX-30-W0773 dated September 23, 2024 (up to 5,700 acre-feet/year from 2024-2026).

2. Imperial Irrigation District, The Metropolitan Water District of Southern California, Palo Verde Irrigation District, and the City of Needles, each hereby forbears any claim to the benefit of, to divert, or to seek the delivery of Colorado River water conserved during 2024 and 2025 by the following Conservation Program:

a. The System Conservation Implementation Agreement between the United States Bureau of Reclamation and The Metropolitan Water District of Southern California to implement a Lower Colorado Conservation and Efficiency Program (LC Conservation Program) based upon temporary and compensated conservation of Colorado River water historically used for irrigation of lands within the Quechan Indian Reservation in California, SCIA No. 23-XX-30-W0783 dated December 13, 2023, and as amended on September __, 2024 (up to 13,000 acre-feet per year in 2024-2026).

3. The forbearance given by this Agreement as to the Conservation Programs identified in Sections 1 and 2 above shall be for the benefit of each of the Parties and shall also be for the benefit of the United States Department of Interior, Bureau of Reclamation. This Agreement does not create any third-party beneficiary rights in any person other than the Parties and the United States Department of the Interior, Bureau of Reclamation.

4. The Parties' forbearance under this Agreement is conditioned upon the annual verification of the conserved water after a workgroup consultation between the United States Department of Interior, Bureau of Reclamation, The Metropolitan Water District of Southern California, Imperial Irrigation District, and Coachella Valley Water District. Any objection must be conveyed in writing within twenty-one (21) days following the consultation.

CVWD Limitation

5. Coachella Valley Water District hereby reaffirms its commitment made in paragraph 6 of the Drought Contingency Plan Implementation Agreement Between The Metropolitan Water District of Southern California and Coachella Valley Water District dated May 20, 2019.

Agreement Is Non-Precedential, Contains No Admissions, and Modifies No Other Agreements

6. The Parties agree that this Agreement shall not in any matter constitute a precedent as to the following:

- (a) any right, obligation, or authority of any Party to engage in a conservation program;
- (b) any methodology used to establish a baseline of consumptive use by which conservation for a program is measured or established in any future year; and
- (c) the quantity of water or the proportion of reduction of contractual entitlement that an agency may be required to conserve or not divert, during any declared shortage.

7. The Parties agree that the reference to "forbearance" in this Agreement does not constitute an admission by any Party that any Party actually has a legal right to claim the conserved water created by any other Party in the absence of a forbearance agreement.

8. Some of the Parties are parties to other agreements among themselves and others relating to drought or shortages on the Colorado River. Nothing in this Agreement expressly or implicitly amends, modifies, or conflicts with the provisions of any of those other such agreements.

Term

9. This Agreement shall be effective when signed by two or more Parties as between the initial signatory Parties and shall be binding upon a subsequent signatory Party as of the date of signature of that Party.

10. The obligations related to the forbearance of conserved water conserved relating to the Conservation Programs under this Agreement shall terminate on May 31, 2027. Otherwise, the provisions of this Agreement shall remain enforceable.

Miscellaneous

11. The rights and obligations under this Agreement do not commit any Party to engage in the creation of conserved water under the Conservation Programs identified in Section 1 above.

12. Each Party represents and warrants that each person or persons executing this Agreement on its behalf is duly authorized to do so by the respective Party and that this Agreement binds that Party.

13. This Agreement may be executed in counterparts, each which is an original, but all of which together will constitute one and the same instrument.

[Signatures on following page]

DRAFT

The Parties are signing this Agreement as of the dates indicated below:

Approved as to form:

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

General Counsel

General Manager

Approved as to form:

COACHELLA VALLEY WATER DISTRICT

Legal Counsel

General Manager

Approved as to form:

IMPERIAL IRRIGATION DISTRICT

General Counsel

General Manager

Approved as to form:

PALO VERDE IRRIGATION DISTRICT

Legal Counsel

General Manager

Approved as to form:

CITY OF NEEDLES

City Attorney

City Manager



City of Needles, California Request for Commission Action

CITY COUNCIL BOARD OF PUBLIC UTILITIES Regular Special

Meeting Date: October 1, 2024

Title: Authorize the City Manager to execute the Physical Security Exemption Letter dated October 1, 2024 and submit it to the California Public Utility Commission (CPUC)

Background: On April 16, 2013, one or more individuals attacked equipment located within Pacific Gas and Electric Company's (PG&E) Metcalf Transmission Substation, ultimately damaging 17 transformers. These individuals also cut nearby fiber-optic telecommunication cables owned by AT&T. In response to the attack, the Federal Energy Regulatory Commission (FERC) directed the North American Electric Reliability Corporation (NERC) to develop new physical security requirements, resulting in the creation of CIP-014.

In 2014 California State Senator Jerry Hill authored SB 699, directing the CPUC to "consider adopting rules to address the physical security risks to the distribution systems of electrical corporations." In response to SB 699, the CPUC's Safety and Enforcement Division, Risk Assessment and Safety Advisory Section (RASA) prepared a white paper proposing a new requirement for investor-owned utilities (IOUs) and publicly owned utilities (POUs) to develop security plans that would identify security risks to their distribution and transmission systems, and propose methods to mitigate those risks. The CPUC hosted a series of workshops to better understand the state of utility physical security protections and to seek input on refining their proposal.

In order to support a statewide improvement of how utilities address distribution level physical security risks, the California Municipal Utilities Association (CMUA), which is the statewide trade association for POU, coordinated with the state's IOUs to develop a comprehensive Straw Proposal¹ (Joint IOU/POU Straw Proposal) for a process to identify at-risk facilities and, if necessary, develop physical security mitigation plans. As a member of CMUA, Island Energy staff participated in the development of the Joint IOU/POU Straw Proposal through a CMUA working group as well as through direct meetings with the IOUs. The Joint IOU/POU Straw Proposal set out a process for the following:

- 1) Identifying if the utility has any high priority distribution facilities.
- 2) Evaluating the potential risks to those high priority distribution facilities.
- 3) For the distribution facilities where the identified risks are not effectively mitigated through existing resilience/security measures, developing a mitigation plan.
- 4) Obtaining third party reviews of the mitigation plans.
- 5) Adopting a document retention policy.
- 6) Ensuring a review process established by the POU governing board; and
- 7) Implementing information sharing protocols.



City of Needles, California Request for Commission Action

Publicly Owned Utilities shall conduct a program review of their Security Plan and associated physical security program every five years after initial approval of the Security Plan by their Board of Directors or City Council. Notice of such approval action shall be provided to the Commission's Safety and Enforcement Division within 30 days of Plan adoption by way of copy of signed resolution or letter by a responsible elected- or appointed official, or utility director.

City Staff have completed a six-step process physical security assessment and have deemed the NPUA does not have any critical infrastructure that meets the requirements set by the CPUC guidelines thus, submission of the exemption designation is required.

Fiscal Impact: None

Environmental Impact: None

Recommended Action: Authorize the City Manager to execute the Physical Security Exemption Letter dated October 1, 2024 and submit it to the California Public Utility Commission (CPUC)

Submitted By: Rainie Torrance, Utility Manager

City Manager Approval: Rainie Torrance for Patrick Martinez

Date: 9/25/24

Other Department Approval (when required): _____

Date: _____

Approved:

Not Approved:

Tabled:

Other:

Agenda Item: _____



City of Needles

817 Third Street, Needles, California 92363
(760) 326-2113 • FAX (760) 326-6765

www.cityofneedles.com

Mayor Janet Jernigan
Vice Mayor Kirsten Merritt
Councilmember Tona Belt
Councilmember Ellen Campbell
Councilmember Jamie McCorkle
Councilmember JoAnne Pogue
Councilmember Henry Longbrake
City Manager Patrick Martinez

October 1, 2024

VIA ELECTRONIC MAIL

Danjel Bout,
Director for Safety Policy Division
California Public Utilities Commission
505 Van Ness Avenues
San Francisco, CA 94102

Re: Utility Security Plan Exemption Designation for Needles Public Utility Authority (NPUA)

Dear Mr. Bout:

In accordance with Ordering Paragraph 28 of California Public Utilities Commission (“Commission”) Decision (“D.”) 19-01-018, NPUA (“NPUA”) hereby provides this letter in support of NPUA’s designation as exempt from the utility security plan requirements of D.19-01-018. The utility security plan requirements of D.19-01-018 are clearly inapplicable to NPUA and continued participation would result in an undue burden and hardship to NPUA for the following reasons: (1) NPUA has no distribution assets that meet any of the seven identification factors for a “Covered Distribution Facility” that are subject to the risk assessment requirements; (2) there are no reasonably foreseeable changes that could occur within NPUA’s service territory that could cause one of NPUA’s distribution assets to meet any of the seven identification factors for a “Covered Distribution Facility”; and (3) NPUA has a comprehensive physical security program that is appropriately tailored to NPUA’s assets. In the sections below, NPUA provides information to demonstrate each of these conclusions.

Needles is a rural community in San Bernardino County in the Mojave Desert region of Southern California. Situated on the western banks of the Colorado River, Needles is located near the California border with Arizona and Nevada. The city, through the Needles Public Utility Authority (a Joint Powers Authority), owns and operates a Publicly Owned Utility (POU) electric utility, which serves 3,000 customers. The electric system expands from the Nevada state line, south of Laughlin, Nevada, to the vicinity of Topock, Arizona. The NPUA prioritizes and implements necessary security protections for our system and asset.

A. NPUA has No Assets that Meet Any of the Seven Identification Factors for a “Covered Distribution Facility.”



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D.19-01-018 adopted a six-step process for developing utility security plans for distribution assets. This six-step process was based on a joint utility proposal¹ as modified by recommendations from the Commission's Safety Policy Division ("SPD").² The initial step under this process is to evaluate if the utility has any "Covered Distribution Facilities," which are distribution assets that fall under any of the following categories:

1. Distribution Facility necessary for crank path, black start or capability essential to the restoration of regional electricity service that are not subject to the California Independent System Operator's (CAISO) operational control and/or subject to North American Electric Reliability Corporation (NERC) Reliability Standard CIP-014-2 or its successors;
2. Distribution Facility that is the primary source of electrical service to a military installation essential to national security and/or emergency response services (may include certain airfields, command centers, weapons stations, emergency.
3. cy supply depots);
4. Distribution Facility that serves installations necessary for the provision of regional drinking water supplies and wastewater services (may include certain aqueducts, well fields, groundwater pumps, and treatment plants);
5. Distribution Facility that serves a regional public safety establishment (may include County Emergency Operations Centers; county sheriff's department and major city police department headquarters; major state and county fire service headquarters; county jails and state and federal prisons; and 911 dispatch centers);
6. Distribution Facility that serves a major transportation facility (may include International Airport, Mega Seaport, other air traffic control center, and international border crossing);
7. Distribution Facility that serves as a Level 1 Trauma Center as designated by the Office of Statewide Health Planning and Development; and
8. Distribution Facility that serves over 60,000 meters.

¹ See Joint IOU/POU Straw Proposal, available at:

<https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M196/K148/196148336.PDF>.

² See Safety & Enforcement Division's Risk Assessment & Safety Advisory (RASA) Section Evaluation of Joint Utility Proposal and Recommendations for Consideration, available at:

<https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M204/K457/204457381.PDF>.



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If a utility does not control any Covered Distribution Facilities, then the utility has no further obligation to perform a risk assessment or to identify physical security mitigation measures as part of D.19-01-018 utility security plan.

NPUA previously prepared a Utility Security Plan, which was adopted City Council via Resolution No. 2021-33 on July 13, 2021. As part of the process of developing this Utility Security Plan, NPUA evaluated if any of its distribution assets met any of the factors listed above. Because some factors required additional definitions and/or clarifications in order to be applied to NPUA’s facilities, NPUA adopted additional clarifications as part of its Utility Security Plan.

In NPUA’s Utility Security Plan, NPUA determined that it does not have any Covered Distribution Facilities, as demonstrated in the following table which provides the relevant factor, the clarification (if any), and NPUA’s determination:

ID Factor	Joint IOU/POU Straw Proposal Description	Additional Clarification	Demonstration
1	Distribution Facility necessary for crank path, black start or capability essential to the restoration of regional electricity service that are not subject to the California Independent System Operator’s (CAISO) operational control and/or subject to North American Electric Reliability Corporation (NERC) Reliability Standard CIP-014-2 or its successors	No additional clarification.	No NPUA distribution facility is necessary for the services identified in Factor 1.
2	Distribution Facility that is the primary source of electrical service to a military installation essential to national security and/or emergency response services (may include certain airfields, command centers, weapons stations, emergency supply depots)	No additional clarification.	NPUA does not provide electric services to any military installations.
3	Distribution Facility that serves installations necessary for the provision of regional drinking water supplies and wastewater services (may include certain aqueducts, well fields, groundwater pumps, and treatment plants)	An installation provides “regional drinking water supplies and wastewater services” if it is the primary source of drinking water supply or wastewater services for over 40,000 customer accounts for an area with a population of over 100,000.	No single drinking water or wastewater facility located within the City of Needles serves more than 40,000 customer accounts or a population of over 100,000 residents.
4	Distribution Facility that serves a regional public safety establishment (may include County Emergency	NPUA defines “regional public safety establishment” as any of the following: (1) Headquarters of a	NPUA does not provide electric service to any regional public safety



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	Operations Centers; county sheriff's department and major city police department headquarters; major state and county fire service headquarters; county jails and state and federal prisons; and 911 dispatch centers)	major police or fire department serving 1.5 million population with at least 1,000 sworn officers; (2) County Sheriff's Department Headquarters; (3) County Emergency Operations Center; (4) County/State Fire headquarters; (5) a California State Prison; (5) a United States Penitentiary; or (6) a Federal Correctional Institute.	establishments. The San Bernardino County Sheriff's Department has officers and professional staff. No other facility listed in Factor 4 is located in the City of Needles or served by NPUA.
5	Distribution Facility that serves a major transportation facility (may include International Airport, Mega Seaport, other air traffic control center, and international border crossing)	In addition to the facilities listed in the Joint IOU/POU Straw Proposal, NPUA defines a "major transportation facility" as any transportation facility that has (1) an average of 600 or more flights per day; or (2) over 50,000 passengers arriving or departing per day.	No major transportation facility is located in the City of Needles.
6	Distribution Facility that serves as a Level 1 Trauma Center as designated by the Office of Statewide Health Planning and Development	No additional clarification.	No Level 1 Trauma Centers are located within the City of Needles.
7	Distribution Facility that serves over 60,000 meters	No additional clarification.	NPUA only has 3,000 customer meters in its entire service territory.

B. There are No Reasonably Foreseeable Changes That Could Occur Within NPUA's Service Territory That Could Cause a NPUA Distribution Asset to Meet Any of the Seven Identification Factors for a "Covered Distribution Facility."

For each of the factors listed in the table above, there is no reasonably foreseeable scenario where a NPUA distribution asset could become a "Covered Distribution Facility."

Factor 1: NPUA has no plans to reconfigure or upgrade its system such that any distribution assets could be necessary for any of the services listed in Factor 1. Further, NPUA is unaware of any system changes by CPUC or any other entity that could cause one of NPUA's distribution assets to become necessary for any of the services listed in factor 1.

Factor 2: NPUA is not aware of any plans to consider constructing a military installation essential to national security and/or emergency response services



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City Manager Patrick Martinez

within NPUA's service territory and NPUA is not aware of any sites in NPUA's service territory that could reasonably be used for such purposes.

Factor 3: NPUA is not aware of any plans to consider constructing a regional drinking water or wastewater facility in NPUA's service territory and, further, the population within NPUA's service territory is not large enough to support a regional drinking water/wastewater facility.

Factor 4: NPUA is not aware of any plans to consider constructing a regional public safety establishment in NPUA's service territory and, further, the population within NPUA's service territory is not large enough to support a regional public safety establishment.

Factor 5: NPUA is not aware of any plans to consider constructing a major transportation facility within NPUA's service territory and NPUA is not aware of any sites in NPUA's service territory that could reasonably be used for such purposes.

Factor 6: NPUA is not aware of any plans to consider constructing a Level 1 Trauma Center within NPUA's service territory and, further, the population within NPUA's service territory is not large enough to support such a facility.

Factor 7: NPUA has far less than 60,000 customer meters in its entire service territory and no current forecast of customer growth predicts such a number to be located in NPUA's service territory in the foreseeable future.

C. NPUA has a Comprehensive Physical Security Program that is Appropriately Suited for NPUA's Distribution Assets.

For the reasons stated above, the utility security plan requirements of D.19-01-018 are clearly inapplicable to NPUA, and thus continuing to apply these requirements to NPUA would result in an undue burden and hardship. Therefore, NPUA should be designated as exempt from the ongoing requirements of D.19-01-018.

Sincerely,

Patrick Martinez, City Manager

cc: Richard Kyo, Senior Utilities Engineer, Safety Policy Division
James Cho, Program Manager, Safety Policy Division
Junaid Rahman, Senior Regulatory Analyst, Safety Policy Division



City of Needles

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Vice Mayor Edward T. Paget, M.D
Councilmember Tona Belt
Councilmember Tim Terral
Councilmember Zachery Longacre
Councilmember Kirsten Merritt
Councilmember Ellen Campbell
City Manager Rick Daniels

August 24, 2021

VIA ELECTRONIC MAIL

Lee Palmer
Director for Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenues
San Francisco, CA 94102

Danjel Bout,
Director for Safety Policy Division
California Public Utilities Commission
505 Van Ness Avenues
San Francisco, CA 94102

Edward Randolph,
Deputy Executive Director for Energy and Climate Policy
California Public Utilities Commission
505 Van Ness Avenues
San Francisco, CA 94102

Re: Notice of Adoption of [POU] Utility Security Plan

Dear Mr. Palmer, Mr. Bout, and Mr. Randolph:

In accordance with Ordering Paragraphs 3 and 4 of California Public Utilities Commission ("Commission") Decision ("D.") 19-01-018, Needles Public Utility Authority ("NPUA") hereby provides notice that NPUA's Utility Security Plan was adopted by the City Council of the City of Needles on July 13, 2021. The City Council's signed resolution adopting NPUA's Utility Security Plan is included as Attachment A to this letter.

Sincerely,

Rainie Torrance Digitally signed by Rainie Torrance
Date: 2021.08.24 13:27:46 -07'00'

Rainie Torrance
Assistant Utility Manager
rtorrance@cityofneedles.com

cc: Richard Kyo, Senior Utilities Engineer, Safety Policy Division
James Cho, Program Manager, Safety Policy Division
Junaid Rahman, Senior Regulatory Analyst, Safety Policy Division

Attachment A

RESOLUTION NO. 2021-33

A RESOLUTION OF THE CITY COUNCIL OF THE
CITY OF NEEDLES, CALIFORNIA, ADOPTING THE UTILITY PHYSICAL SECURITY
PLAN

WHEREAS, City of Needles provides retail utility electric, water and wastewater services to the City of Needles in the name of the Needles Public Utility Authority (NPUA); and

WHEREAS, the NPUA is required by the California Public Utilities Commission (CPUC) to develop and submit annually a Utility Physical Security Plan (Plan) addressing its electrical distribution facilities security; and

WHEREAS, the Plan is to be developed in accordance with the 2019 CPUC Decision (D.) 19-01-018 (Decision); and

WHEREAS, NPUA has determined it serves no critical "Covered Distribution Facilities" as defined by the Decision; and

WHEREAS, NPUA has obtained an "Independent Third-Party Review" of the Plan as required by the Decision; and

WHEREAS, NPUA has submitted the Plan for review to the California Office of Emergency Services (CalOES), where CalOES has been deemed a "Qualified Authority" in performing Plan review.

NOW, THEREFORE, BE IT RESOLVED THAT:

The City Council adopts the Needles Public Utility Authority Plan dated July 6, 2021 and accepts the third party review.

PASSED AND ADOPTED by the City Council on this day of July 13, 2021, by the following vote:

AYES: Council Members Campbell, Terral, Merritt, Belt and Longacre

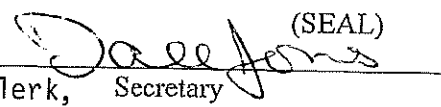
NOES: None

ABSENT: Mayor Williams

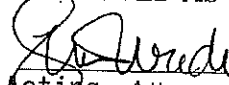
ABSTAIN: None


Vice Mayor

ATTEST:

 (SEAL)
City Clerk, Secretary

APPROVED AS TO FORM:


Acting Attorney

MEMORANDUM

June 24, 2021

TO: Board of Public Utilities/Needles Public Utility Authority

FROM: City of Needles Emergency Response Coordinator; Patrick Martinez

RE: Review of NPUA Utility Security Plan

California Public Utilities Commission (CPUC) Decision (D.) 19-01-018 directs all electric utilities to develop a Utility Security Plan assessing the physical security risks to certain significant, distribution-level substations that are operated by the utility and identifying mitigating measures for those risks. These Utility Security Plans must be evaluated by a qualified third party, and any recommendations of that third party must be addressed in the Utility Security Plan. As an additional level of review, the Utility Security Plan of any publicly owned utility (POU) must be submitted to a “qualified authority,” which must make a recommendation on the overall adequacy of the plan. After the review by the qualified authority, the finalized plan of a POU is submitted to its governing board for adoption.

NPUA has determined that the City of Needles Emergency Response Coordinator has sufficient familiarity with relevant federal, state, and local standards relating to critical asset protection and emergency response in order to serve as the “qualified authority” for the review of NPUA’s Utility Security Plan. Needles Emergency Response Coordinator has relevant experience in its role as to local emergency or safety response.

On June 21, 2021, the NPUA submitted its draft Utility Security Plan to Needles Emergency Response Coordinator for review. The scope of the Qualified Authority review is to assess the overall adequacy of the plan, based on the reviewer’s expertise.

In this review, Needles Emergency Response Coordinator makes no claims regarding the compliance of NPUA’s Utility Security Plan with any specific requirement or standard. Further, the Emergency Response Coordinator has not assessed, and makes no claim regarding, NPUA’s Utility Security Plan’s conformance to D.19-01-018 or any other CPUC standards. Finally, Needles review is limited to the information contained within NPUA’s Utility Security Plan, and Needles Emergency Response Coordinator has not performed any additional audits of any identified facilities or reviewed any documents outside of the information directly included within the Utility Security Plan.

The third-party review concludes that while NPUA has identified 0 facilities that are subject to this identification analysis as a “Covered Distribution Facility”. The distribution system review and assessment did identify three (3) customers that could be considered sensitive to power interruptions:

1. Colorado River Medical Center
2. Needles Public Utility Authority Primary Well No. 15

3. Needles Public Utility Authority Wastewater Plant

A recommendation is encouraged to the NPUA to visit each customer to ensure proper back-up generation in on site in the event of an extended outage.

The review also identified several distribution facilities that lack alarm controls and fully screened fencing around the Substations. A recommendation to invest in increased security measures.

Based on this review, Needles Emergency Response Coordinator deems the NPUA's Utility Security Plan adequate and recommends that the Board of Public Utilities and Needles Public Utility Authority adopt the NPUA's Utility Security Plan.



Patrick Martinez
Needles Emergency Response Coordinator
pmartinez@cityofneedles.com
(760)326-5700 X126



This document was developed by the CMUA Physical Security Working Group and is intended is for general information only and is not offered or intended as legal advice. This document does not reflect minimum or mandatory elements for a Utility Security Plan, nor does this document reflect industry standards or best practices. Readers should seek the advice of an attorney when confronted with legal issues and attorneys should perform an independent evaluation of the issues raised in this document.

NEEDLES PUBLIC UTILITY AUTHORITY (NPUA) UTILITY SECURITY PLAN

**PUBLIC REPORT ON NPUA'S PHYSICAL SECURITY
PROGRAM FOR DISTRIBUTION-LEVEL FACILITIES**

July 6, 2021

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I. OVERVIEW

A. GOAL OF UTILITY SECURITY PLAN

Ensuring the safety of its facilities is a top priority for the NPUA, and the NPUA prioritizes safety in all aspects of its design, operation, and maintenance practices. The overarching goal of this Utility Security Plan is to describe NPUA's risk management approach toward distribution system physical security, with appropriate consideration of resiliency, impact, and cost.

NPUA recognizes the importance of securing the safety and reliability of its electric system and, therefore, NPUA voluntarily participated in the California Public Utilities Commission's (CPUC) Physical Security proceeding and has undertaken this assessment. In the spirit of continued voluntary cooperation, NPUA offers the following in response to CPUC Decision 19-01-018.

B. DESCRIPTION OF NPUA

The NPUA provides electric service to approximately 3,000 customers within the City and certain contiguous areas from the Nevada state line, south of Laughlin, Nevada, to the vicinity of Topock, Arizona. The NPUA has 75 miles of primary, 34 miles of transmission, 4 substations, 649 transformers and 1,865 poles.

The City has entered into a contract (Contract No. 87-BCA-10098) with the United States Department of Energy Western Area Power Administration ("WAPA") to purchase Federal hydropower from the Parker-Davis generating facility. Approximately 55% of the City's current electric energy is purchased from WAPA. Needles' peak electric demand is 22.41 megawatts (MW), established in August 2018.

C. RESULTS OF UTILITY SECURITY PLAN ASSESSMENT

The third-party review concludes that while NPUA has identified 0 facilities that are subject to this identification analysis as a "Covered Distribution Facility". However, the NPUA has identified customers that could be considered sensitive to power interruptions and improvements to make to distribution facilities to increase security.

II. BACKGROUND

On April 16, 2013, one or more individuals attacked equipment located within Pacific Gas and Electric Company's (PG&E) Metcalf Transmission Substation, ultimately damaging 17 transformers. These individuals also cut nearby fiber-optic telecommunication cables owned by AT&T. In response to the attack, the Federal Energy Regulatory Commission (FERC) directed the North American Electric Reliability Corporation (NERC) to develop new physical security requirements, resulting in the creation of CIP-014.

At the state level, Senator Jerry Hill authored SB 699 (2014), directing the CPUC to "consider adopting rules to address the physical security risks to the distribution systems of electrical corporations." In response to SB 699, the CPUC's Safety and Enforcement Division, Risk Assessment and Safety Advisory Section (RASA) prepared a white paper proposing a new requirement for investor owned utilities (IOUs) and publicly owned utilities (POUs) to develop security plans that would identify security risks to their distribution and transmission systems, and propose methods to mitigate those risks. The CPUC hosted a series of workshops to better understand the state of utility physical security protections and to seek input on refining their proposal.

In order to support a statewide improvement of how utilities address distribution level physical security risks, the California Municipal Utilities Association (CMUA), which is the statewide trade association for POUs, coordinated with the state's IOUs to develop a comprehensive Straw Proposal¹ (Joint IOU/POU Straw Proposal) for a process to identify at-risk facilities and, if necessary, develop physical security mitigation plans. As a member of CMUA, [POU] staff participated in the development of the Joint IOU/POU Straw Proposal through a CMUA working group as well as through direct meetings with the IOUs. The Joint IOU/POU Straw Proposal set out a process for the following: (1) identifying if the utility has any high priority distribution facilities; (2) evaluating the potential risks to those high priority distribution facilities; (3) for the distribution facilities where the identified risks are not effectively mitigated through existing resilience/security measures, developing a mitigation plan; (4) obtaining third party reviews of the mitigation plans; (5) adopting a document retention policy; (6) ensuring a review process established by the POU governing board; and (7) implementing information sharing protocols.

RASA filed a response² to the Joint IOU/POU Straw Proposal that recommended various modifications and clarifications, including a six step process. Additionally, RASA recommended that the utility mitigation plans include: (1) an assessment of supply chain vulnerabilities; (2) training programs for law enforcement and utility staff to improve communication during physical security events; and (3) an assessment of any nearby communication utility infrastructure that supports priority distribution substations.

¹ Straw Proposal available at: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/Safety/Risk_Assessment/physicalsecurity/R1506009-Updated%20Joint%20Straw%20Proposal%20and%20Cover%20083117%20Filing.pdf.

² RASA Response available at: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/Safety/Risk_Assessment/physicalsecurity/Final%20Staff%20Recommendation%20for%20Commission%20Consideration%2010318.pdf.

In early 2019, the CPUC approved Decision (D.) 19-01-018, which adopted the Joint IOU/POU Straw Proposal as modified by the RASA proposal, with additional clarifications and guidance. D.19-01-018 clarified that where there is a conflict between the Straw Proposal and the RASA proposal, then it is the rule in the RASA proposal that controls.³

D.19-01-018 asserted that the POUs should utilize the Utility Security Plan process described therein. [POU] is following the process and issuing this report at this time to reflect its existing commitment to safety and to protecting its ratepayers' investment by taking reasonable and cost-effective measures in an effort to safeguard key assets of its distribution system.

³ D.19-01-018 at 43, footnote 58 ("Should there be any question of which shall predominate should there be any incongruity or conflict between a utility or SED RASA recommended rule, the SED RASA rule shall apply.").

III. PLAN DEVELOPMENT PROCESS

A. PHYSICAL SECURITY PRINCIPLES

The Joint IOU/POU Straw Proposal seeks to support the creation of a risk management approach toward distribution system physical security, with appropriate considerations of resiliency, impact, and cost. In order to accomplish this risk-based approach, the Joint IOU/POU Straw Proposal identifies several principles to guide the development of each individual utility's program. These principles are the following:

1. Distribution systems are not subject to the same physical security risks and associated consequences, including threats of physical attack by terrorists, as the transmission system.
2. Distribution utilities will not be able to eliminate the risk of a physical attack occurring, but certain actions can be taken to reduce the risk or consequences, or both, of a significant attack.
3. A one-size-fits-all standard or rule will not work. Distribution utilities should have the flexibility to address physical security risks in a manner that works best for their systems and unique situations, consistent with a risk management approach.
4. Protecting the distribution system should consider both physical security protection and operational resiliency or redundancy.
5. The focus should not be on all Distribution Facilities, but only those that risk dictates would require additional measures.
6. Planning and coordination with the appropriate federal and state regulatory and law enforcement authorities will help prepare for attacks on the electrical distribution system and thereby help reduce or mitigate the potential consequences of such attacks.

B. Utility Security Plan Development Process

NPUA utilized a multi-step process to develop this Utility Security Plan that is consistent with the Joint IOU/POU Straw Proposal and D.19-01-018. The relevant six steps of that process are the following:

STEP 1: ASSESSMENT/PLAN DEVELOPMENT

NPUA staff prepare a Draft Utility Security Plan through the process set forth in Steps 1A, 1B, and 1C.

STEP 1A: IDENTIFY COVERED DISTRIBUTION FACILITIES

NPUA will evaluate all distribution-level facilities in its service territory that are subject to its control to determine if any facility meets D.19-01-018's definition of a "Covered Distribution Facility" using the seven factors identified in the Joint IOU/POU Straw Proposal.

STEP 1B: PERFORM RISK ASSESSMENT

For every individual Covered Distribution Facility identified pursuant to Step 1A, NPUA will perform an evaluation of the potential risks associated with a successful physical attack on that Covered Distribution Facility, and whether existing grid resiliency, back-up generation, and/or physical security measures appropriately mitigate identified risks.

STEP 1C: DEVELOP MITIGATION PLAN

If there are any individual Covered Distribution Facilities where the Risk Assessment performed pursuant to Step 1B finds that the existing mitigation and/or resiliency measures do not effectively mitigate the identified risks, then NPUA will develop a Mitigation Plan for that Covered Distribution Facility. The Mitigation Plan will use a risk-based approach to select reasonable and cost-effective measures that can either be security focused (e.g., walls or alarms) or resiliency focused (e.g., adequate spare parts).

STEP 2: INDEPENDENT REVIEW

For every Utility Security Plan cycle, NPUA will document the results of the identification process, risk assessment, and Mitigation Plan development performed pursuant to Steps 1A, 1B, and 1C. This documentation in combination with narrative description in Section IX below, constitutes NPUA's Draft Utility Security Plan. Each Draft Utility Security Plan is submitted to a Qualified Third Party for Independent Review. The Qualified Third Party Reviewer will then issue an evaluation that identifies any potential deficiencies in the Draft Utility Security Plan as well as recommendations for improvements. NPUA will then modify its plan to address any identified deficiencies or recommendations, or will document the reasons why any recommendations were not adopted. The combination of the Draft Utility Security Plan, the non-confidential conclusions of the Qualified Third Party Reviewer, and NPUA's responses to the Qualified Third Party Review will constitute NPUA's Utility Security Plan.

STEP 3: VALIDATION

NPUA will submit its Utility Security Plan to a qualified authority for review. Such entity will provide additional feedback and evaluation of NPUA's Utility Security Plan and, to the extent that this entity is authorized, such entity deems the Utility Security Plan as adequate.

STEP 4: ADOPTION

NPUA's Utility Security Plan will be presented to and adopted by NPUA's governing board at a public meeting.

STEP 5: MAINTENANCE

NPUA will refine and update the Utility Security as appropriate and as necessary to preserve plan integrity.

STEP 6: REPEAT PROCESS

NPUA will repeat this six step process at least once every five years.

IV. IDENTIFICATION OF COVERED DISTRIBUTION FACILITIES (STEP 1A)

As described in Section III, Step 1A of the Utility Security Plan process involves assessing all distribution-level facilities that are subject to the control of NPUA to determine which facilities are "Covered Distribution Facilities" subject to the need for a risk assessment. This Section describes the factors that NPUA used to evaluate its distribution facilities and the results of its evaluation.

A. IDENTIFICATION FACTORS

The Joint IOU/POU Straw Proposal defines seven screening factors to determine if a facility is a "Covered Distribution Facility." Some factors require additional definitions and/or clarifications in order to be applied to NPUA's facilities. The following Table provides the Joint IOU/POU Straw Proposal's Factors as modified/clarified by NPUA.

Factor	Joint IOU/POU Straw Proposal Description	Additional Clarification
1	Distribution Facility necessary for crank path, black start or capability essential to the restoration of regional electricity service that are not subject to the California Independent System Operator's (CAISO) operational control and/or subject to North American Electric Reliability Corporation (NERC) Reliability Standard CIP-014-2 or its successors	No additional clarification.
2	Distribution Facility that is the primary source of electrical service to a military installation essential to national security and/or emergency response services (may include certain airfields, command centers, weapons stations, emergency supply depots)	No additional clarification.
3	Distribution Facility that serves installations necessary for the provision of regional	An installation provides "regional drinking water supplies and wastewater

	drinking water supplies and wastewater services (may include certain aqueducts, well fields, groundwater pumps, and treatment plants)	services" if it is the primary source of drinking water supply or wastewater services for over 40,000 customer accounts for an area with a population of over 100,000.
4	Distribution Facility that serves a regional public safety establishment (may include County Emergency Operations Centers; county sheriff's department and major city police department headquarters; major state and county fire service headquarters; county jails and state and federal prisons; and 911 dispatch centers)	[POU] defines "regional public safety establishment" as any of the following: (1) Headquarters of a major police or fire department serving 1.5 million population with at least 1,000 sworn officers; (2) County Sheriff's Department Headquarters; (3) County Emergency Operations Center; (4) County/State Fire headquarters; (5) a California State Prison; (5) a United States Penitentiary; or (6) a Federal Correctional Institute.
5	Distribution Facility that serves a major transportation facility (may include International Airport, Mega Seaport, other air traffic control center, and international border crossing)	In addition to the facilities listed in the Joint IOU/POU Straw Proposal, [POU] defines a "major transportation facility" as any transportation facility that has (1) an average of 600 or more flights per day; or (2) over 50,000 passengers arriving or departing per day.
6	Distribution Facility that serves as a Level 1 Trauma Center as designated by the Office of Statewide Health Planning and Development	No additional clarification.
7	Distribution Facility that serves over 60,000 meters	No additional clarification.

B. IDENTIFICATION ANALYSIS

In performing this identification analysis, NPUA is assessing all distribution level facilities that are subject to its exclusive control, or if the facility is jointly owned, the joint ownership agreement identifies NPUA as the entity responsible for operation and maintenance. The specific types of facilities include substations and primary distribution.

Based on this scope, NPUA has identified 0 facilities that are subject to this identification analysis. The distribution system review and assessment did identify 3 customers that could be considered sensitive to power interruptions:

1. Colorado River Medical Center
2. Needles Public Utility Authority Primary Well No. 15
3. Needles Public Utility Authority Wastewater Plant

NPUA did not classify these facilities as "Covered Distribution Facilities" as these facilities have mitigation measures in place with on-site back-up generation except for Well No. 15.

All other customers within the NPUA's service territory are either residential, general commercial and light industrial.

The following table summarizes the results of NPUA's identification analysis.

Facility ID	1. Crank Path, Black Start	2. Military Installation	3. Regional Drinking Water/Wastewater Services	4. Regional Public Safety	5. Major Transportation Facility	6. Level 1 Trauma Center	7. Over 60,000 Meters
Substation 1	0	0	0	0	0	0	0
Substation 2	0	0	0	0	0	0	0
Substation 3	0	0	0	0	0	0	0
Substation 4	0	0	0	0	0	0	0

V. RISK ASSESSMENT (STEP 1B)

A. METHODOLOGY

Pursuant to the process identified in the Joint IOU/POU Straw Proposal and D.19-01-018, NPUA will assess the potential risks associated with a successful physical attack on each of the Covered Distribution Facilities identified in Section IV above. For purpose of this analysis, a physical attack is limited to the following: (1) theft; (2) vandalism; and (3) discharge of a firearm. A "successful physical attack" is limited to circumstances where a theft, vandalism, and/or the discharge of a firearm has directly led to the failure of any elements of the Covered Distribution Facility that are necessary to provide uninterrupted service to the specific load identified in Section IV.

In order to perform this risk analysis, NPUA evaluates the relative risk that (1) a physical attack on a Covered Distribution Facility will be successful considering the protective measures in place; or (2) that the impacts of a successful attack will be mitigated due to resiliency and other measures in place.

B. MITIGATION MEASURES

D.19-01-018 identifies the specific mitigation measures that a utility should consider when performing this risk analysis. The following table lists these mitigation measures and provides NPUA's additional clarifications that are necessary to apply these measures to the NPUA's territory.

Measure	D.19-01-018 Description	Additional Clarification
1	The existing system resiliency and/or redundancy solutions (e.g., switching the load to another substation or circuit capable of serving the load, temporary circuit ties, mobile generation and/or storage solutions).	No additional clarification.
2	The availability of spare assets to restore a particular load.	No additional clarification.
3	The existing physical security protections to reasonably address the risk.	No additional clarification.
4	The potential for emergency responders to identify and respond to an attack in a timely manner.	Each facility is evaluated based on the likelihood that a law enforcement officer would generally be able to arrive at the Covered Distribution Facility within 15 minutes of a report from the public of a break-in or attack, or of NPUA notifying the law enforcement agency of triggering of an alarm at the facility.
5	Location and physical surroundings, including proximity to gas pipelines and	NPUA evaluated this element based on the proximity of the Covered Distribution Facility to populated areas

	geographical challenges, and impacts of weather.	and the extent to which the interior of the facility is shielded from view and access due to walls, vegetation, or other physical obstructions.
6	History of criminal activity at the Distribution Facility and in the area.	NPUA evaluated the property crime rates in the immediate vicinity of the Covered Distribution Facility and compared those crimes rates to property crime rates for the county and the state to determine if the area is subject to a higher than average incidence of property related crimes.
7	The availability of other sources of energy to serve the load (e.g., customer owned back-up generation or storage solutions).	No additional clarification.
8	The availability of alternative ways to meet the health, safety, or security.	No additional clarification.
9	Requirements served by the load (e.g., back up command center or water storage facility).	No additional clarification.

C. RISK ASSESSMENT

Based on the process described in the Joint IOU/POU Straw Proposal and the direction provided in D.19-01-018, NPUA has determined that of the [Y] Covered Distribution Facilities identified in Section IV, the existing programs and measures effectively mitigate the risks of a physical attack for [Z] of those Covered Distribution Facilities.

[Provide a general description of the POU's overall approach to security at substations and the specific protective and mitigating measures that are in place at these specific facilities. Also describe by facility or category why the existing measures are sufficient].

The follow table provides a summary of NPUA's assessment of each mitigation measure for each Covered Distribution Facility.

Facility ID	1. Existing Resiliency	2. Spare Assets	3. Existing Physical Security	4. Emergency Responders	5. Location	6. Criminal History	7. Back up Generation	8-9. Alternate Solution	Risk Level
Substation 1	YES	YES	EXHIBIT A	N/A	N/A	N/A	EXIBIT A	N/A	1
Substation 2	YES	YES	EXHIBIT A	N/A	N/A	N/A	EXIBIT A	N/A	1
Substation 3	YES	YES	EXHIBIT A	N/A	N/A	N/A	EXIBIT A	N/A	1
Substation 4	YES	YES	EXHIBIT A	N/A	N/A	N/A	EXIBIT A	N/A	1

As identified above, [A] of the Covered Distribution Facilities do not have existing mitigating measures sufficient to effectively mitigate the identified risks of a physical attack. These facilities are discussed in Section VI.

VI. COVERED DISTRIBUTION FACILITY MITIGATION PLANS (STEP 1C)

Pursuant to the process identified in the Joint IOU/POU Straw Proposal and D.19-01-018, NPUA has determined that for [A] of the Covered Distribution Facilities that are subject to NPUA's control, the existing mitigation measures do not effectively reduce the risk of a physical security attack. This section describes the Mitigation Plan that [POU] has developed for each of these Covered Distribution Facilities.

A. SUBSTATION 1 MITIGATION PLAN

[describe in more detail the identified fault in the existing mitigation measures and the specific actions that NPUA will make to further reduce the risk of a physical attack or mitigate the impacts of a successful attack. Include a specific timeline. D.19-01-018 also states that a cost estimate should be included. This requirement was likely focused on the IOUs, but to the extent that a cost estimate can be included, it may be beneficial.]

B. SUBSTATION 5 MITIGATION PLAN

[describe in more detail the identified fault in the existing mitigation measures and the specific actions that NPUA will make to further reduce the risk of a physical attack or mitigate the impacts of a successful attack. Include a specific timeline. D.19-01-018 also states that a cost estimate should be included. This requirement was likely focused on the IOUs, but to the extent that a cost estimate can be included, it may be beneficial.]

VII. INDEPENDENT EVALUATION AND RESPONSE (STEP 2)

A. REQUIREMENTS FOR QUALIFIED THIRD PARTY REVIEW

D.19-01-018 specifies the following criteria for a Qualified Third Party Reviewer:

Independence: A Qualified Third Party Reviewer cannot be a division of the POU. A governmental entity can select as the third-party reviewer another governmental entity within the same political subdivision, so long as the entity has the appropriate expertise, and is not a division of the POU that operates as a functional unit, i.e., a municipality could use its police department as its third-party reviewer if it has the appropriate expertise.

Adequate Qualifications: A Qualified Third Party Reviewer must be an entity or organization with electric industry physical security experience and whose review staff has appropriate physical security expertise, which means that it meets at least one of the following: (1) an entity or organization with at least one member who holds either an ASIS International Certified Protection Professional (CPP) or Physical Security Professional (PSP) certification; (2) an entity or organization with demonstrated law enforcement, government, or military physical security expertise; or (3) an entity or organization approved to do physical security assessments by the CPUC, Electric Reliability Organization, or similar electrical industry regulatory body.

B. IDENTIFICATION OF THIRD PARTY REVIEWER

NPUA has selected as its Third Party Reviewer; the City of Needles Emergency Response Coordinator

Public results of third party evaluation:

The third-party review concludes that while NPUA has identified 0 facilities that are subject to this identification analysis as a "Covered Distribution Facility". The distribution system review and assessment did identify three (3) customers that could be considered sensitive to power interruptions:

1. Colorado River Medical Center
2. Needles Public Utility Authority Primary Well No. 15
3. Needles Public Utility Authority Wastewater Plant

A recommendation is encouraged to the NPUA to visit each customer to ensure proper back-up generation in on site in the event of an extended outage.

The review also identified several distribution facilities that lack alarm controls and fully screened fencing around the Substations. A recommendation to invest in increased security measures.

C. NPUA RESPONSE

The NPUA will ensure each sensitive customer is visited and backup generation is on site. In addition, all distribution facilities will be improved with security systems and screened fencing.

Needles Public Utility Authority Security Plan
July 6, 2021

VIII. VALIDATION (STEP 3)

A. SELECTION OF QUALIFIED AUTHORITY

PLACEHOLDER: THIS SECTION TO BE COMPLETED WHEN QUALIFIED AUTHORITY COMPLETES ITS REVIEW.

B. RESULTS OF QUALIFIED AUTHORITY REVIEW

PLACEHOLDER: THIS SECTION TO BE COMPLETED WHEN QUALIFIED AUTHORITY COMPLETES ITS REVIEW.

C. NPUA RESPONSE

PLACEHOLDER: THIS SECTION TO BE COMPLETED WHEN QUALIFIED AUTHORITY COMPLETES ITS REVIEW.

IX. NARRATIVE DESCRIPTIONS FOR UTILITY SECURITY PLAN

A. ASSET MANAGEMENT PROGRAM

The NPUA's asset management program includes:

1. Maintaining a working on-site inventory of key spare parts and materials including transformers, switchgear, fuses, wires, tools, and hardware to quickly effect repairs.
2. Maintaining direct access to multiple key vendors through arrangements to allow for immediate placement of material orders and timely delivery.
3. Maintaining a positive relationship with neighboring utilities to assist in the event of an outage.

B. WORKFORCE TRAINING AND RETENTION PROGRAM

The NPUA employs a full staff of highly qualified service technicians able to respond to make repairs in short order throughout a utility's service territory using spare parts stockpiles and inventory.

C. PREVENTATIVE MAINTENANCE PLAN

NPUA has an ongoing security preventative maintenance program to both maintain existing system and to improve system security and security equipment. These ongoing steps are underway and include, but are not limited to:

1. Routine facility visits to check fencing and locks
2. Routine light checks

3. Adding screened fencing
4. Adding security system
5. Removing facility visual barriers such as foliage, stored or abandoned equipment and materials.
6. Signage

D. PHYSICAL SECURITY EVENT TRAINING

The NPUA meets periodically with staff to discuss operations, security concerns and mitigations.

E. COMMUNICATION INFRASTRUCTURE RISK ASSESSMENT

The NPUA does not have in place communication systems specific to the utility distribution system.

F. FACILITY DESIGN FEATURES

Any future new facilities, or refurbishment of existing facilities, will incorporate best practices or better for low observability, sightlines, defensibility, general order and perimeter security – including screened fencing, lighting and security systems.

EXHIBIT A: NPUA's DISTRIBUTION FACILITIES DESCRIPTION

Distribution Facility	Type	Location	Service Type	Security Characteristics	Other Characteristics/Mitigation
Substation 1	12kV Substation	Eagle Pass Road	Residential, General Commercial, light industrial	Fencing, locked fencing	n/a
Substation 2	12kV Substation	Bush Street & R Street	Residential, General Commercial, light industrial	Fencing, locked entry	n/a
Substation 3	12kV Substation	Bush Street & T Street	Residential, General Commercial, light industrial	Partially Screened fencing, locked entry	n/a
Substation 4	12kV Substation	Needles Hwy	Residential, General Commercial, light industrial	Partially Screened fencing, locked entry	n/a



City of Needles, California Request for Commission Action

CITY COUNCIL BOARD OF PUBLIC UTILITIES Regular Special

Meeting Date: October 1, 2024

Title: Adopt the 2024 Needles Public Utility Authority Wildfire Mitigation Plan Version 5.0

Background: In 2008, the California Public Utilities Commission (“CPUC”) initiated a proceeding to address fires related to utility infrastructure, following a series of wildfires that occurred in 2007 and 2008. The goal of this proceeding was to establish new industry standards that would reduce the risk of electric line-ignited wildfires, with a focus on areas of the state where wildfire risks are elevated. In 2012, the CPUC adopted three interim fire maps that designated areas of the state where stricter inspection and vegetation clearance requirements would apply to overhead utility poles and equipment.¹ These interim maps were based on generalized wildfire threat, rather than the areas that were at a unique risk of electric line-ignited fires. The CPUC acknowledged the need for a better map and, in the same 2012 Decision, the CPUC directed parties to develop a more precise statewide fire map that identified areas of the state at an elevated risk of electric line-ignited wildfires.²

In 2016, Governor Brown signed Senate Bill (“SB”) 1028 (stats. 2016), which required publicly owned utilities (“POUs”) to identify additional wildfire mitigation measures that the POU could take if the POU governing board first found that its overhead electric lines and equipment posed a significant risk of causing a catastrophic wildfire. SB 1028 required that the POU governing board must base this determination on “historical fires and local conditions,” and must consult with local fire departments and other entities with responsibilities for the control of wildfires within the relevant area³ These requirements were specified in the newly added Public Utilities Code Section 8387.

In 2018, the CPUC completed the development of the statewide Fire Threat Map that designates areas of the state at an elevated risk of electric line-ignited wildfires.⁴ This updated map incorporated historical fire data, fire-behavior modeling, assessments of fuel, weather modeling, and host of other factors. The map development and approval process involved detailed review by the relevant utility staff and local fire officials, a peer review process, and ultimate approval by a team of technical experts led by the California Department of Forestry and Fire Protection (“CAL FIRE”). The CPUC’s Fire Threat Map includes three Tiers/Levels of fire threat risk. Tier 1 consists of areas that have the lowest hazards and risks. Tier 2 consists of

¹ D.12-01-032.

² D.12-01-032 at 146-147.

³ Cal. Pub. Util. Code § 8387(b).

⁴ PG&E Advice Letter 5211-E/3172-E, “Joint Filing – Adoption of Final California Public Utilities Commission Fire-Threat Map,” Jan. 5, 2018, available at https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5211-E.pdf; SED Disposition Letter Approving Advice Letter 5211-E/3172-E, January 19, 2018, available at https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5211-E.pdf.



City of Needles, California Request for Commission Action

areas where there is an elevated risk for destructive electric line-ignited wildfires. Finally, Tier 3 consists of areas where there is an extreme risk for destructive electric line-ignited wildfires.

NPUA Staff reviewed the CPUC's Fire Threat Map and determined that no NPUA overhead electric lines or equipment are located in an area designated as either Tier 2 (elevated risk) or Tier 3 (extreme risk). Staff also reviewed historical fire data and local conditions. Based on this review, staff concluded NPUA's overhead electric lines and equipment did not pose a significant wildfire risk.

In 2018, Governor Brown signed SB 901 (stats. 2018), which addressed a wide range of issues relating to wildfire prevention, response, and recovery. SB 901 substantially revised the Public Utilities Code Section 8387, eliminating the prior process established by SB 1028 and instead making it mandatory for all POU's (regardless of size or wildfire risk) to develop a wildfire mitigation plan. Pursuant to the amended Section 8387, all POU's must present a wildfire mitigation plan to its governing board prior to January 1, 2020, and annually thereafter. Section 8387(b)(2) specifies the topics that must be addressed in the POU wildfire mitigation plans, which includes: (a) the responsibilities of the persons tasked with executing the plan; (b) a description of the POU's wildfire mitigation preventative strategies and programs; (c) a description of the metrics the POU will use to evaluate the wildfire mitigation plan's performance and discussion of how those metrics informed the current wildfire mitigation plan; (d) protocols for disabling reclosers and deenergizing portions of the electrical system; and (e) identification, description, and prioritization of all wildfire risks within the POU's service territory.

SB 901 requires that POU's must present their wildfire mitigation plan at an appropriately noticed public meeting and receive public comment. The POU must also verify that the wildfire mitigation plan complies with all applicable rules, regulations, and standards. POU's must also have their plan reviewed by a qualified independent evaluator to assess the comprehensiveness of the plan. The independent evaluator must then issue a report that the POU must make available on the POU's website, and the POU must present the report at a public meeting of the POU's governing board.

In 2019, two new bills (SB 1054 and SB 111) made additional major reforms relating to wildfires. As part of these reforms, SB 111 created a new state agency called the California Wildfire Safety Advisory Board ("Board"). The Board will be made up of seven members, five appointed by the Governor, one appointed by the Speaker of the Assembly, and one appointed by the Senate Rules Committee. The members of the board must be selected from industry experts, academics, and people with labor and workforce safety experience. At least three members must be experienced in the safe operation, design, and engineering of electrical infrastructure. SB 1054 requires that all POU's must submit their wildfire mitigation plans to the Board by July 1 of each year, starting in 2020. The Board will then review the POU plans and will provide comments and advisory opinions on the content and sufficiency the plans.

Pursuant to Public Utilities Code, Section 8387, NPUA has prepared the required wildfire mitigation plan. Staff has reviewed the NPUA's wildfire mitigation plan and concluded



City of Needles, California Request for Commission Action

that the plan meets all the required criteria as provided in Section 8387.

Following the adoption of the NPUA's Wildfire Mitigation Plan an audit of the plan is expected to be review with the San Bernardino County Fire Department. The plan and audit findings will be published at a public meeting and received public comment. The report and audit must be available on the NPUA's electric department website.

WSAB's specific guidance for the City of Needles (found in Appendix 3) is as follows:

The WSAB appreciates Needles including the context-setting template and statutory cross-reference table at the beginning of their 2022 WMP, as requested. The WSAB encourages Needles to continue this practice and to consider using appropriate parts of the proposed new 2023 comprehensive revision template in Appendix 1 as they prepare and file their next WMP.

The WSAB notes that Needles has not included any additional information about the adoption and public comment processes for WMPs in their 2022 document. The WSAB encourages Needles to include adoption information in future WMPs describing briefly the adoption and public comment processes Needles followed for the WMP being submitted, along with information about budget processes for any potential or expected mitigation expenses, per the proposed new 2023 comprehensive revision template.

The WSAB notes that Needles has not included updated information about their wildfire mitigation plans on their website. The WSAB can find a link to the initial WMP from 2019 and what appears to be a duplicate link pointing to the same WMP but suggesting that it is a "review" of the WMP, perhaps an independent evaluation report. The WSAB encourages Needles to provide a clear and prominent WMP page that includes older as well as current information to allow perusal of WMP history, that is – public access to former WMPs and IE Reports. The WSAB also requests that Needles include information in their 2023 comprehensive revision WMP about where on their website such information can be found.

The WSAB notes that there were few if any substantive changes between Needles' 2021 and 2022 WMPs, other than adding the context setting template and statutory cross-reference table as noted above. While the WSAB believes that minimal changes in an update year are reasonable given Needles' low likelihood of catastrophic wildfire, the WSAB encourages Needles to look more substantively at changes for the 2023 comprehensive revision WMP. The WSAB notes that Needles may have intended to add 2021 metrics but left yellow highlighted number signs in the table instead, and that in

the final section of the WMP Needles uses the word "part" when they appear to mean "party". The WSAB suggests that these minor errors are an indication of lack of sufficient attention, and believes that Needles will clear them up when they file their 2023 comprehensive revision WMP. No additional changes were made in 2024.



City of Needles, California Request for Commission Action

Fiscal Impact: None

Environmental Impact: None

Recommended Action: Adopt the 2024 Needles Public Utility Authority Wildfire Mitigation Plan Version 5.0

Submitted By: Rainie Torrance, Utility Manager

City Manager Approval: Rainie Torrance for Patrick Martinez Date: 9/25/24

Other Department Approval (when required): _____ Date: _____

Approved: <input type="checkbox"/>	Not Approved: <input type="checkbox"/>	Tabled: <input type="checkbox"/>	Other: <input type="checkbox"/>
			Agenda Item: _____

NEEDLES PUBLIC UTILITY AUTHORITY WILDFIRE MITIGATION PLAN



VERSION 5.0



SEPTEMBER 2024

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I. OVERVIEW

A. POLICY STATEMENT

The Needles Public Utility Authority (NPUA) overarching goal is to provide safe, reliable, and economic electric service to its local community. In order to meet this goal, NPUA constructs, maintains, and operates its electrical lines and equipment in a manner that minimizes the risk of catastrophic wildfire posed by its electrical lines and equipment.

B. UTILITY OVERVIEW AND CONTEXT SETTING TABLE

The City, through the Needles Public Utility Authority (a Joint Powers Authority) owns and operates the electric utility. The electric system expands from the Nevada state line, south of Laughlin, Nevada, to the vicinity of Topock, Arizona.

Context Setting Table
Needles Public Utility Authority

Service Territory Size [110] square miles

Owned Assets X Transmission X Distribution Generation

Number of Customers Served [3,000] customer accounts

Population Within Service Territory [5,200] people

Customer Class Makeup:

Number of Accounts

[55]% Residential; [5]% Government; [0]% Agricultural; [10]% Small/Medium Business; [30]% Commercial/Industrial

Share of Total Load (MWh)

[30]% Residential; [5]% Government; [0]% Agricultural; [20]% Small/Medium Business; [45]% Commercial/Industrial

Percent of Service Territory in CPUC High Fire Threat Districts (based on total area):

Tier 2: [0]% Tier 3: [0]%

See section IV. CPUC Fire Threat Map for the NPUA

Miles of Owned Lines Underground and/or Overhead

Overhead Dist.: [65] miles Overhead Trans.: [34] miles Underground Dist.: [12] miles Underground Trans.: [0] miles

Percent of Owned Lines in CPUC High Fire Threat Districts

Overhead Distribution Lines as % of Total Distribution System (Inside and Outside Service Territory)

Tier 2: [0]% Tier 3: [0]%

Overhead Transmission Lines as % of Total Transmission System (Inside and Outside Service Territory)

Tier 2: [0]% Tier 3: [0]%

Table 2: Cross References to Statutory Requirements

Requirement	Statutory Language	Location in WMP
Persons Responsible	PUC § 8387(b)(2)(A): An accounting of the responsibilities of persons responsible for executing the plan.	Section III Page 4
Objectives of the Plan	PUC § 8387(b)(2)(B): The objectives of the wildfire mitigation plan.	Section II Page: 3
Preventive Strategies	PUC § 8387(b)(2)(C): A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.	Section VII.A Page 4
Evaluation Metrics	PUC § 8387(b)(2)(D): A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan’s performance and the assumptions that underlie the use of those metrics.	Section VII.B Page 5
Impact of Metrics	PUC § 8387(b)(2)(E): A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	Section IV.J Page 2
Deenergization Protocols	PUC § 8387(b)(2)(F): Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.	Section IV.J Page 2
Customer Notification Procedures	PUC § 8387(b)(2)(G): Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.	Section IV.K 1 & 2 Page 3
Vegetation Management	PUC § 8387(b)(2)(H): Plans for vegetation management.	Section IV.G Page 10

Inspections	PUC § 8387(b)(2)(I): Plans for inspections of the local publicly owned electric utility’s or electrical cooperative’s electrical infrastructure.	Section IV.H Page 10
Prioritization of Wildfire Risks	<p>PUC § 8387(b)(2)(J): A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility’s or electrical cooperative’s service territory. The list shall include, but not be limited to, both of the following:</p> <p>(i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility’s or electrical cooperative’s equipment and facilities.</p> <p>(ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility’s or electrical cooperative’s service territory.</p>	Section IV Page 8
CPUC Fire Threat Map Adjustments	PUC § 8387(b)(2)(K): Identification of any geographic area in the local publicly owned electric utility’s or electrical cooperative’s service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high fire threat district based on new information or changes to the environment.	Section IV.C Page 9
Enterprisewide Risks	PUC § 8387(b)(2)(L): A methodology for identifying and presenting enterprisewide safety risk and wildfire-related risk.	Section IV.B Page 8
Restoration of Service	PUC § 8387(b)(2)(M): A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.	Section IV Page 3
Monitor and Audit	<p>PUC § 8387(b)(2)(N): A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following</p> <p>(i) Monitor and audit the implementation of the wildfire mitigation plan.</p> <p>(ii) Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.</p> <p>(iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.</p>	Section VII.D Page 5

<p style="text-align: center;">Qualified Independent Evaluator</p>	<p>PUC § 8387(c): The local publicly owned electric utility or electrical cooperative shall contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. The independent evaluator shall issue a report that shall be made available on the Internet Web site of the local publicly owned electric utility or electrical cooperative, and shall present the report at a public meeting of the local publicly owned electric utility’s or electrical cooperative’s governing board.</p>	<p style="text-align: center;">Section VII.D Page 5</p>
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C. PURPOSE OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan describes the range of activities that the NPUA is taking to mitigate the threat of power-line ignited wildfires, including its various programs, policies, and procedures. This plan is subject to direct supervision by the Board of Public Utilities and the Needles Public Utility Authority and is implemented by the NPUA's Electric Supervisor. This plan complies with the requirements of Public Utilities Code section 8387 for publicly owned electric utilities to prepare a wildfire mitigation plan by January 1, 2020, and annually thereafter.

The NPUA is a department within the City of Needles. The NPUA Fire Prevention plan is focused on addressing and minimizing potential wildfire-related risks to public health, safety and welfare. The Fire Prevention plan reflects a broad range of activities performed not only by the electric department but through the City of Needles organization. The NPUA's Fire Prevention plan begins with operation, maintenance, inspection, and repair activities aimed at significantly reducing the potential for NPUA's electric facilities to become a source of ignition for a fire. The electric department continues to;

- Clear transmission lines of all trees and vegetation;
- Perform regular inspections all distribution and transmission lines;
- Repair and replacement transformers that could potential cause a risk;
- Coordinate vegetation removal through the City of Needles Parks and Recreation Department if an area is determined outside of the electric easements.

Through performing inspections and maintenance, the information gathered will be used to help fire agencies, and other fire-responders to determine the appropriate actions if a wildfire occurs by understanding the surround area.

The NPUA continues to monitor all fires within and surrounding its service territory both inside California and outside in Arizona and Nevada.

This Wildfire Mitigation Plan included the following elements:

- Objectives of the plan;
- Roles and responsibilities for carrying out the plan;
- Identification of key wildfire risks and risk drivers;
- Description of wildfire prevention, mitigation, and response strategies and programs;
- Community outreach and education;
- Metrics for evaluating the performance of the plan and identifying areas for improvement;
- Review and validation of the plan; and

Timelines

D. WILDFIRE MITIGATION PLAN ADOPTION AND SUBMITTAL OF ANNUAL PLAN AND OPPORTUNITIES FOR PUBLIC COMMENT

NPUA's Wildfire Mitigation Plan is presented to the Board of Public Utilities and makes a recommendation to the Needles Public Utility Authority/City Council at a public meeting to adopt a resolution (appendix 1) adopting the current version of the plan. Members from the public are able to provide comments when the plan is presented on the agenda for approval.

All adopted plans are submitted to the California Wildfire Safety Advisory Board (WSAB). WSAB reviews all submitted plan and makes recommendations for improvement.

E. WILDFIRE MITIGATION PLAN WEBSITE LOCATION

II. NPUA'S WILDFIRE MITIGATION PLANS ARE POSTED ON THE CITY OF NEEDLES WEBSITE AND CAN BE LOCATED AT [HTTPS://CITYOFNEEDLES.COM/SERVICES/ELECTRIC-DEPARTMENT/OBJECTIVES OF THE WILDFIRE MITIGATION PLAN](https://cityofneedles.com/services/electric-department/objectives-of-the-wildfire-mitigation-plan)

A. MINIMIZING SOURCES OF IGNITION

The primary goal of this Wildfire Mitigation Plan is to minimize the probability that NPUA's transmission and distribution system may be the origin or contributing source for the ignition of a fire. The NPUA has evaluated the prudent and cost-effective improvements to its physical assets, operations, and training that can help to meet this objective. The NPUA has implemented those changes consistent with this evaluation.

B. RESILIENCY OF THE ELECTRIC GRID

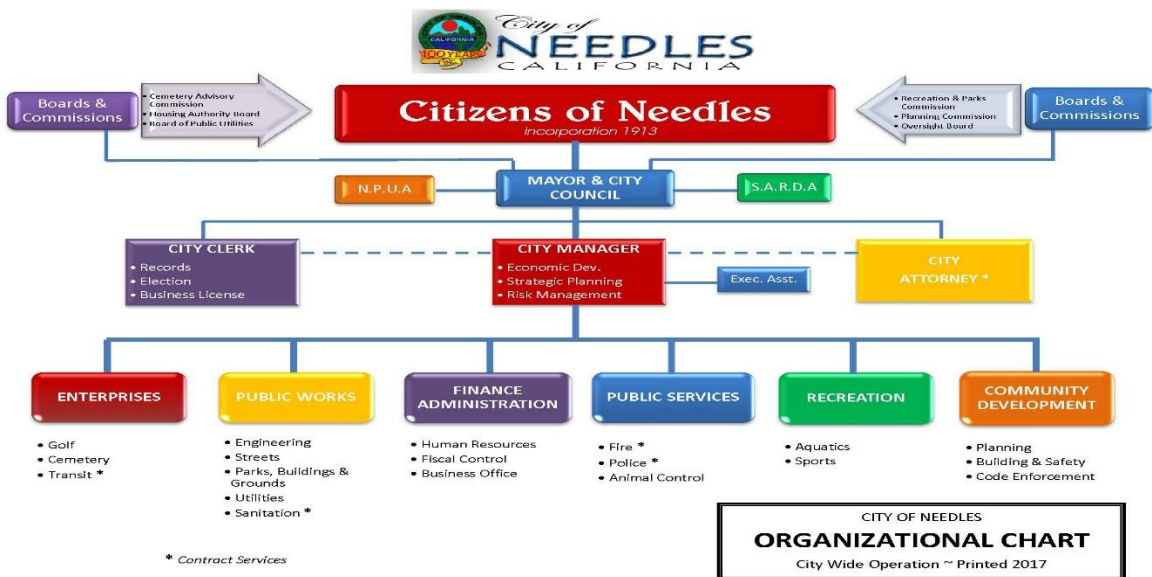
The secondary goal of this Wildfire Mitigation Plan is to improve the resiliency of the electric grid. As part of the development of this plan, NPUA assesses new industry practices and technologies that will reduce the likelihood of an interruption (frequency) in service and improve the restoration (duration) of service.

C. IDENTIFYING UNNECESSARY OR INEFFECTIVE ACTIONS

The final goal for this Wildfire Mitigation Plan is to measure the effectiveness of specific wildfire mitigation strategies. Where a particular action, program component, or protocol is determined to be unnecessary or ineffective, the NPUA will assess whether a modification or replacement is merited. This plan will also help determine if more cost-effective measures would produce the same or improved results.

III. ROLES AND RESPONSIBILITIES

A. UTILITY GOVERNANCE STRUCTURE



The City of Needles (Needles) is a charter city of the State of California located on the eastern border of California. Through the Needles Public Utilities Authority (NPUA), a component unit of the City, the City owns the Public Utilities Department. The Department consists of three Divisions Electric, Water, and Wastewater.

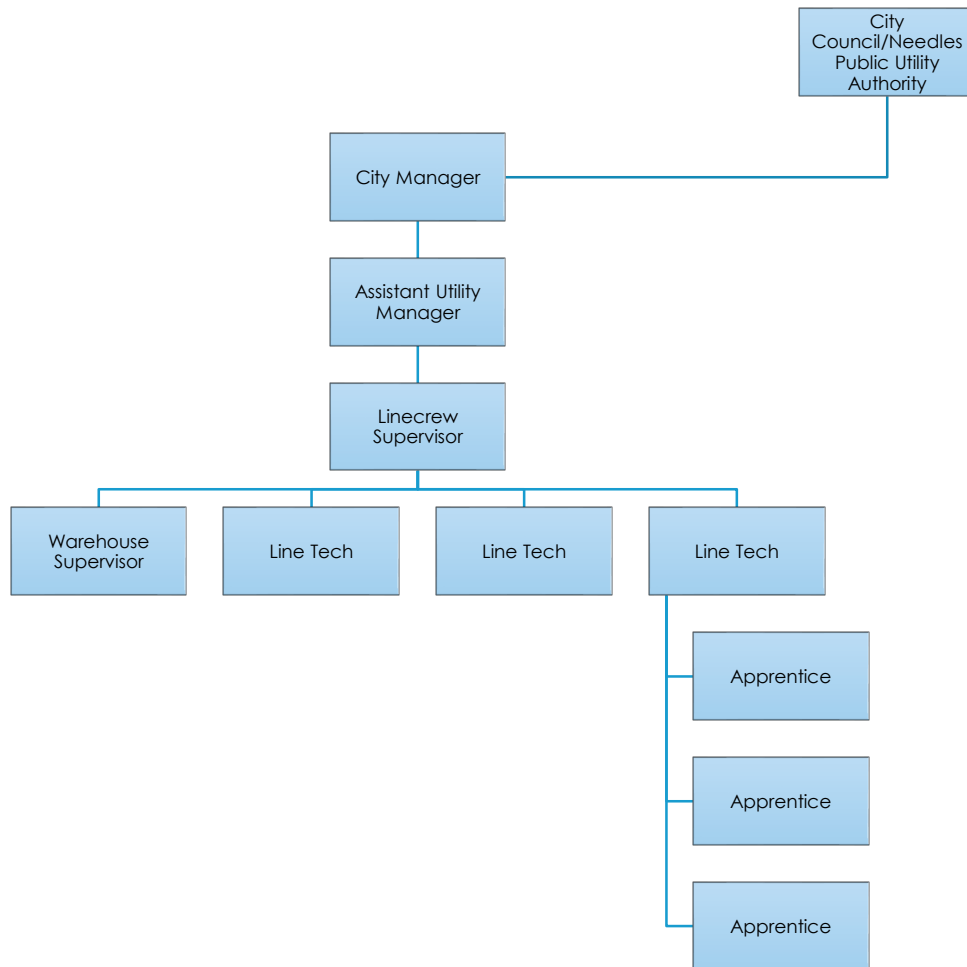
The electric distribution system serving the City was originally owned by the Needles Gas and Electric Company. The Needles Gas and Electric Company was purchased by the predecessor to CP National in 1930. On January 10, 1983, the City purchased the electric distribution system from CP National. However, pursuant to a management agreement, CP National continued to operate the system until July 1990. The City has operated the electric distribution system since that time.

The City's primary interest in purchasing the electric distribution system from CP National stemmed from a change in Federal law in 1982, relating to the sale of hydroelectricity power

from federal projects. Under the revised regulations, inexpensive federal hydroelectricity power from the U.S. Bureau of Reclamation's Parker-Davis Project (Hoover Dam), located on the Colorado River, became available to municipally owned utilities. The City's electorate authorized the issuance of revenue bonds to finance the acquisition of the electric distribution system from CP National.

The City provides electric service to the City and contiguous areas from the Nevada state line, south of Laughlin, Nevada, to the vicinity of Topock, Arizona. Needles' peak electric demand is 22.41 MW (as of August 2018) and services approximately 3,000 customers.

B. WILDFIRE PREVENTION



The electric department is under direct supervision from the Assistant Utility Manager and City Manager, there is one Power Line Supervisor, three power line techs, two Apprentice Lineman and one Warehouse Manager. The electric department is responsible to:

- Operate system in a manner that will minimize potential wildfire risks.
- Take all reasonable and practicable actions to minimize the risk of a catastrophic wildfire caused by NPU electric facilities.

- Coordinate with federal, state, and local fire management personnel as necessary or appropriate to implement NPUA's Wildfire Mitigation Plan.
- Immediately report fires, pursuant to existing POU practices and the requirements of this Wildfire Mitigation Plan.
- Take corrective action when the staff witnesses or is notified that fire protection measures have not been properly installed or maintained.
- Comply with relevant federal, state, and industry standard requirements, including the industry standards established by the California Public Utilities Commission.
- Collect and maintain wildfire data necessary for the implementation of this Wildfire Mitigation Plan.
- Provide regular training programs for all employees having obligations for implementation of this Wildfire Mitigation Plan.

C. WILDFIRE RESPONSE AND RECOVERY

The City's communication strategy is structured so that all stakeholders receive accurate, timely and consistent information, with the overall message of safety first, for the public, employees and contractors.

When an emergency occurs, the electric departments supervisor will be responsible for communicating with the City Manager/Utilities Manager, customers, employees and contractors to set expectation and address emergency issues. This information will be provided through various communication channels such as company phone(s) and radios.

If business operations or households are disrupted, customers expect to know how long they will be impacted. Thus, estimated restoration times will be developed, monitored, adjusted and communicated to all stakeholders as the information becomes available.

D. COORDINATION WITH WATER UTILITIES/DEPARTMENT

During declared emergencies, the electric department is responsible for coordinating efforts and sharing information with neighboring utilities relative to the out of service and damaged critical infrastructure.

During an event, the electric department will perform the following functions;

- Share information and prioritize restoration efforts relative to utility critical infrastructure that is out of service.
- Notify the water department of the downed communication wires.

E. COORDINATION WITH COMMUNICATION INFRASTRUCTURE PROVIDERS

During declared emergencies, the electric department is responsible for coordinating efforts and sharing information with neighboring telecommunications utilities relative to the out of service and damaged critical infrastructure.

During an event, the electric department will perform the following functions;

- Share information and prioritize restoration efforts relative to utility critical infrastructure that is out of service.
- Coordinate with the appropriate telephone and cable company to set poles; and
- Notify the telephone and cable companies of downed communication wires.

F. STANDARDIZED EMERGENCY MANAGEMENT SYSTEM

As a local governmental agency,¹ NPUA has planning, communication, and coordination obligations pursuant to the California Office of Emergency Services' Standardized Emergency Management System ("SEMS") Regulations,² adopted in accordance with Government Code section 8607. The SEMS Regulations specify roles, responsibilities, and structures of communications at five different levels: field response, local government, operational area, regional, and state.³ Pursuant to this structure, NPUA annually coordinates and communicates with the relevant safety agencies as well as other relevant local and state agencies.

Under the SEMS structure, a significant amount of preparation is done through advanced planning at the county level, including the coordination of effort of public, private, and nonprofit organizations.

NPUA is a member of the California Utility Emergency Association, which plays a key role in ensuring communications between utilities during emergencies.

¹ As defined in Cal. Gov. Code § 8680.2.

² 19 CCR § 2407.

³ Cal. Gov. Code § 2403(b):

(1) "Field response level" commands emergency response personnel and resources to carry out tactical decisions and activities in direct response to an incident or threat.

(2) "Local government level" manages and coordinates the overall emergency response and recovery activities within their jurisdiction.

(3) "Operational area level" manages and/or coordinates information, resources, and priorities among local governments within the operational area and serves as the coordination and communication link between the local government level and the regional level.

(4) "Regional level" manages and coordinates information and resources among operational areas within the mutual aid region designated pursuant to Government Code §8600 and between the operational areas and the state level. This level along with the state level coordinates overall state agency support for emergency response activities.

(5) "State level" manages state resources in response to the emergency needs of the other levels, manages and coordinates mutual aid among the mutual aid regions and between the regional level and state level, and serves as the coordination and communication link with the federal disaster response system.

IV. WILDFIRE RISKS AND DRIVERS ASSOCIATED WITH DESIGN, CONSTRUCTION, OPERATION, AND MAINTENANCE

A. PARTICULAR RISKS AND RISK DRIVERS ASSOCIATED WITH TOPOGRAPHIC AND CLIMATOLOGICAL RISK FACTORS

Within NPUA's service territory and the surrounding areas, the primary risk drivers for wildfire are the following:

- Extended drought;
- Vegetation type;
- Weather;
- High winds;
- Changing Weather Patterns (Climate Change)

B. CLIMATE CHANGE AND ENTERPRISEWIDE SAFETY RISKS

Western Area Power Administration (WAPA) delivers energy to the City of Needles on a 69KVA transmission line. The distribution line crosses the river in town at 3240 Needles Hwy, the firehouse switchyard. The City of Needles also has a back 69KVA Line that comes from the Nora McDowell Substation located 15 miles north of Needles.

Electric energy is delivered to the City at two substations. Needles #1 Substation has two banks located on Eagle Pass Road in the downtown area of the City. Bank #1 has a base rating of 7.5MVA and a 65 foot rise and force air rating of 9.3MVA.

The second substation, Bush Street Substation, has a base rating of 10MVA and a 65 foot rise with a forced air rating of 12MVA. The Bush Substation serves the west end of town.

The existing substations can handle current peak load requirements of 15,200 kilowatts. From the substations approximately 86 miles of distribution circuits deliver power at 12,000 volts to distribution transformers where the power is reduced to the voltages required by the individual customer's needs. The City electric department provides single phase, 60 Hertz, at one standard voltage (120/240 or 120/208 as may be selected by customers subject to availability at the premises).

While the NPUA makes improvements to the system annually, the main focus for the utility is ground clearance.

NPUA recognizes that climate change is forecasted to increase the frequency and severity of catastrophic wildfires in California. Accordingly, NPUA has reviewed relevant sources of data showing wildfire-related climate change impacts in California and specifically in San Bernardino County through the Cal-Adapt enterprise collaboration. This review included data on forecasted acres burned and wildfire probability,⁴ as well as extreme heat days,⁵ and extended

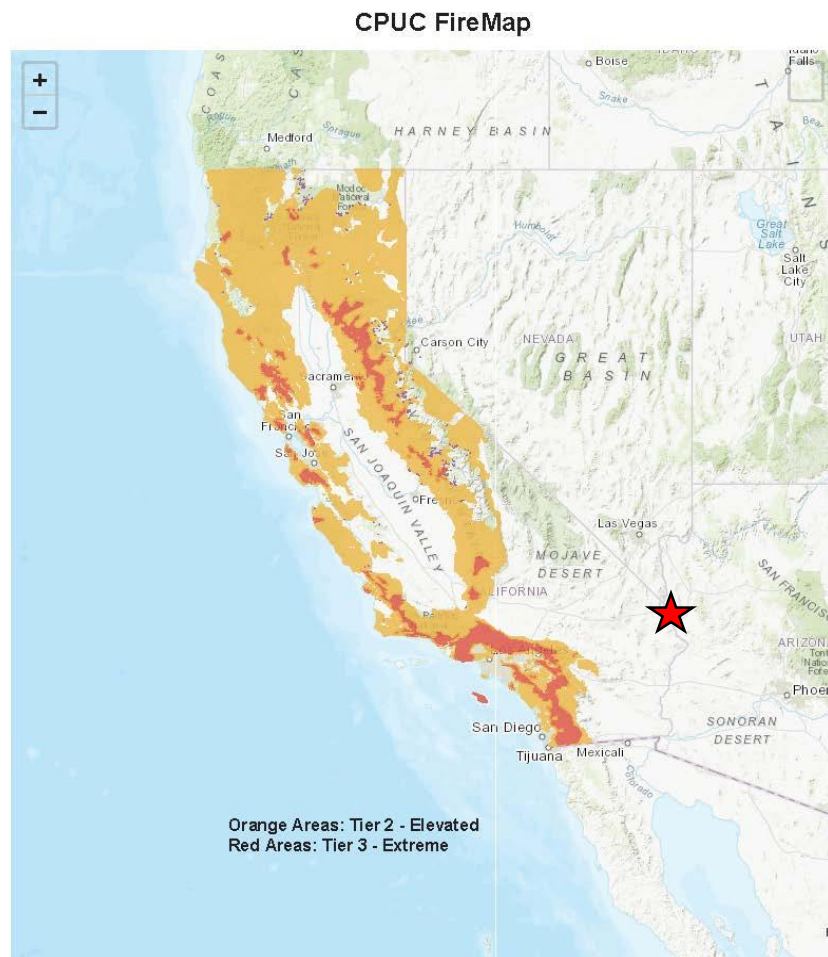
⁴ The CalAdapt Wildfire Tool is available at <https://cal-adapt.org/tools/wildfire>.

⁵ The CalAdapt Extreme Heat Days Tool is available at <https://cal-adapt.org/tools/extreme-heat>.

drought.⁶ As described below, NPUA has determined that NPUA's service territory will remain a low risk for wildfires even when considering changes associated with wildfire risk. Further, no part of NPUA's service territory will be disproportionately impacted by wildfire risks associated with climate changes in comparison to the other areas of NPUA's service territory. Therefore, NPUA will continue to pursue the wildfire mitigation strategies described in the Wildfire Mitigation Plan, but will continue to monitor these risks as new information becomes available.

C. CPUC FIRE THREAT MAP

The NPUA is not located within the CPUC Fire Threat Map and therefor is not located within an elevated hazard for the ignition of potential wildfires.



D. HIGH FIRE THREAT DISTRICT

⁶ The CalAdapt Extended Drought Tool is available at <https://cal-adapt.org/tools/extended-drought>.

NPUA directly participated in the development of the California Public Utilities Commission's (CPUC) Fire-Threat Map,⁷ which designates a High-Fire Threat District. In the map development process, NPUA served as a territory lead, and worked with utility staff and local fire & government officials to identify the areas of NPUA's service territory that are at an elevated or extreme risk of power line ignited wildfire. NPUA has incorporated the High Fire Threat District into its construction, inspection, maintenance, repair, and clearance practices, where applicable.

E. WEATHER MONITORING

NPUA monitors current and forecasted weather data from a variety of sources including:

- United States National Weather Service
- United States Forest Service Wildland Fire Assessment System
- National Fire Danger Rating System
- National Interagency Fire Center – Predictive Services for Northern and Southern California.

NPUA assigns one of four operating conditions based on the relevant weather data and knowledge of local conditions:

- (1) Normal:** During normal conditions, no changes are made to operations or work policy.
- (2) Elevated:** During elevated fire-risk conditions; it must be determined by the Fire Coordinator and/or meteorologist that the burn environment has become conducive for wildfires within the NPUA service territory.
- (3) Extreme:** During extreme fire-risk conditions, it must be determined by the Fire Coordinator and/or meteorologist that due to the conditions of high winds, low relative humidity, and the burn environment will create critical fire weather conditions;
- (4) Red Flag:** If the National Weather Service declares a Red Flag Warning for any portion of the NPUA's Service.

F. DESIGN AND CONSTRUCTION STANDARDS

NPUA's electric facilities are designed and constructed to meet or exceed the relevant federal, state, or industry standard. The NPUA treats CPUC General Order (GO) 95 as a key industry standard for design and construction standards for overhead electrical facilities. NPUA meets or exceeds all standards in GO 95. Additionally, NPUA monitors and follows as appropriate the National Electric Safety Code.

G. VEGETATION MANAGEMENT

NPUA meets or exceeds the minimum industry standard vegetation management practices. For transmission-level facilities, NPUA complies with NERC FAC-003-4, where applicable. For both

⁷ Adopted by CPUC Decision 17-12-024.

transmission and distribution level facilities, NPUA meets: (1) Public Resources Code section 4292; (2) Public Resources Code section 4293; (3) GO 95 Rule 35; and (4) the GO 95 Appendix E Guidelines to Rule 35. These standards require significantly increased clearances in the High Fire Threat District. However, as noted above, no part of NPUA's service territory includes any part of the High Fire Threat District. The recommended time-of-trim guidelines do not establish a mandatory standard, but instead provide useful guidance to utilities. NPUA uses specific knowledge of growing conditions and tree species to determine the appropriate time of trim clearance in each circumstance.

GO 95, Rule 35, Table 1					
Case	Type of Clearance	Trolley Contact, Feeder and Span Wires, 0-5kv	Supply Conductors and Supply Cables, 750 - 22,500 Volts	Supply Conductors and Supply Cables, 22.5 - 300 kV	Supply Conductors and Supply Cables, 300 - 550 kV (mm)
13	Radial clearance of bare line conductors from tree branches or foliage	18 inches	18 inches	¼ Pin Spacing	½ Pin Spacing
14	Radial clearance of bare line conductors from vegetation in the Fire-Threat District	18 inches	48 inches	48 inches	120 inches

Appendix E Guidelines to Rule 35		
<p>The radial clearances shown below are recommended minimum clearances that should be established, at time of trimming, between the vegetation and the energized conductors and associated live parts where practicable. Reasonable vegetation management practices may make it advantageous for the purposes of public safety or service reliability to obtain greater clearances than those listed below to ensure compliance until the next scheduled maintenance. Each utility may determine and apply additional appropriate clearances beyond clearances listed below, which take into consideration various factors, including: line operating voltage, length of span, line sag, planned maintenance cycles, location of vegetation within the span, species type, experience with particular species, vegetation growth rate and characteristics, vegetation management standards and best practices, local climate, elevation, fire risk, and vegetation trimming requirements that are applicable to State Responsibility Area lands pursuant to Public Resource Code Sections 4102 and 4293.</p>		
Voltage of Lines	Case 13	Case 14
Radial clearances for any conductor of a line operating at 2,400 or more volts, but less than 72,000 volts	4 feet	12 feet

Radial clearances for any conductor of a line operating at 72,000 or more volts, but less than 110,000 volts	6 feet	20 feet
Radial clearances for any conductor of a line operating at 110,000 or more volts, but less than 300,000 volts	10 feet	30 feet
Radial clearances for any conductor of a line operating at 300,000 or more volts	15 feet	30 feet

H. INSPECTIONS

The NPUA meets or exceeds the minimum inspection requirements provided in CPUC GO 165 and CPUC GO 95, Rule 18. Pursuant to these rules, NPUA inspects electric facilities in the High Fire Threat District more frequently than the other areas of its service territory. Additionally, NPUA staff uses their knowledge of the specific environmental and geographical conditions to determine when areas outside of the High Fire Threat District require more frequent inspections.

If NPUA staff discovers a facility in need of repair that is owned by an entity other than NPUA, NPUA will issue a notice to repair to the facility owner and work to ensure that necessary repairs are completed promptly.

NPUA monitors drought conditions and other relevant factors throughout the year to determine if inspections should be completed on a shorter timeframe.

I. WORKFORCE TRAINING

NPUA has implemented work rules and complementary training programs for its workforce to help reduce the likelihood of the ignition of wildfires. The NPUA inspects power lines and other electrical equipment during potential risk times.

J. RECLOSING POLICY

The NPUA does not have SCADA controlled reclosers, two qualified linemen reclose or close the distribution system. Lockout, tagout safety procedures are followed.

K. DEENERGIZATION

The NPUA has the authority to preemptively shut off power due to fire-threat conditions; however, this option will only be used in extraordinary circumstances. The NPUA will make a case-by-case decision to shut off power based on the following considerations:

- Red Flag Warnings issued by the National Weather Service for fire weather zones that contain NPUA circuits;
- NPUA staff assessments of local conditions, including wind speed (sustained and gust), humidity and temperature, fuel moisture, fuel loading and data from weather stations;
- Real-time information from staff located in areas identified as at risk of being subject to extreme weather conditions;

- Input from San Bernardino County fire experts and vegetation experts;
- Input from local and state fire authorities regarding the potential consequences of wildfires in select locations;
- Alternative ways to reroute power to affected areas;
- Awareness of mandatory or voluntary evacuation orders in place;
- Expected impact of de-energizing circuits on essential services;
- Other operational considerations to minimize potential wildfire ignitions, including the blocking of reclosers on the identified circuit(s);
- On-going fire activity throughout NPUA's territory and California;
- Ability to notify customers;
- Notifications to local governments and public officials; and
- Potential impacts to communities and customers

1. IMPACTS TO PUBLIC SAFETY

The following is a listing of facilities which are special considerations of the public safety during a power outage;

- Hospitals and Emergency Medical Facilities (Colorado River Medical Center);
- Emergency Shelters and Cooling Centers (Colorado River Medical Center, Needles Senior Center);
- Fire, Police, Paramedics and Rescue Facilities;
- Emergency Management Offices (CalOES);
- Water and Wastewater Facilities;
- Critical Utility and Communication Facilities (Frontier, Route 66 Broadband, Z Fiver, Fort Mojave Telecommunications Inc. etc.);
- Mass Transit (BNSF, Airport, Needles Area Transit);
- Critical Flood Control Structures; and
- Fort Mojave Indian Tribe Hazardous Mitigation Facility.

In the event of a wildfire and potential outages those accounts, the Priority Restoration Group will be notified of a potential impact first.

2. CUSTOMER NOTIFICATION PROTOCOLS

The NPUA takes priority in providing notification to all customers who are affected by a power outage. The NPUA will establish a dispatch center at City Hall offices to provide real time information to the customers such as;

- Effective area(s); and
- Estimated restoration time.

V. COMMUNITY OUTREACH AND PUBLIC AWARENESS

When a wildfire is mobilized, the City Manager/Utilities Manager branches to provide public awareness through the following;

- Issuing a wildfire press release;
- Arranging media interviews and press conferences, as necessary.
- Issuing a CodeRed Alert
- Issuing an alert through the City of Needles “Needles Connects” mobile app

VI. RESTORATION OF SERVICE

Restoring power after a major storm or wildfire is a complex task that must be completed quickly and safely. A speedy restoration requires significant communication, along with skilled line workers. The process for restoration is:

1. The electric department establishes a command post at the nearest substation to the affected area
2. An inspection is conducted from the substation out to the affected area
3. Crews inspect the affected area and create a damage assessment
4. The restoration team ensures the line is deenergized and grounded
5. Replacement of damaged material such as conductors, transformers, insulators is the damaged area
6. The effected circuit is re-energized
7. Households in isolated are re-energized
8. Crews will remain at the command post for one-hour following the full restoration to ensure all circuits are on
9. Dispatch will call the crew is calls are reported for no power
10. Crews may be dispatched to individual homes to reset the breaker

11. EVALUATING OF THE PLAN

A. METRICS AND ASSUMPTIONS FOR MEASURING PLAN PERFORMANCE

NPUA tracks external risk metrics, performance metrics, and outcome metrics to measure the effectiveness of this Wildfire Mitigation Plan. The external risk factors that NPUA tracks provides context regarding the relative risks that impact the utility that are outside of NPUA's control, such as red flag days and high wind events. The performance metrics that NPUA tracks are leading indicators that describe actions that are intended to reduce the risk of utility caused wildfires, such as inspections and routine vegetation management. The outcome metrics tracked by NPUA are lagging indicators that measure outcomes that may be associated with an increased risk of utility-caused wildfires. These outcome metrics include outages, ignitions, and level 1 safety hazards.

B. METRICS FOR 2023 PLAN

Performance Metrics								
Metric type	Progress Metric	(Actual) 2021	(Actual) 2022	(Forecast) 2023	(Forecast) 2024	(Forecast) 2025	Unit(s)	Comments
1. Substation Interconnection (above-ground system components)	Routine Inspections	4	4	4	4	4	# inspections	Inspections are conducted quarterly
Outcome Metrics								
Event Category	Cause category	(Actual) 2019	(Actual) 2020	(Actual) 2021	(Actual) 2022	(To Date) 2023	Unit(s)	Comments
Outage Event	Distribution	8	5	7	9	2	# outages	Storm Related
Ignitions*	Distribution	0	0	0	0	0	# ignitions	
Level 1 Safety Hazards**	Distribution	0	0	0	0	0	# hazards discovered	
<p>Notes:</p> <p>* An "ignition" is deemed to occur if each of the following conditions is met: (1) an IPU owned or controlled facility was associated with the fire; (2) the fire was self-propagating and of a material other than electrical and/or communication facilities; (3) the resulting fire traveled greater than one linear meter from the ignition point; and (4) IPU has knowledge that the fire occurred.</p> <p>** A Level 1 Safety Hazard is defined as an immediate risk with a high potential impact to public or worker safety or to system reliability, where IPU will take corrective action immediately, either by fully repairing or by temporarily repairing and reclassifying to a lower priority.</p>								

C. IMPACT OF METRICS ON PLAN

NPUA reviews these metrics to identify areas of its operations and service territory that are disproportionately impacted by outages, ignitions, or level 1 safety hazards. NPUA will then evaluate potential improvements to the plan or additional mitigation measures to address any such disproportionately affected areas.

D. MONITORING AND AUDITING THE PLAN

This Wildfire Mitigation Plan will be presented to the Board of Public Utilities (BPU), Needles Public Utilities Authority (NPUA) and the City Council. BPU will present this plan to Needles Public Utility Authority on an annual basis. All presented plans will include recommendation for improvement as applicable to the NPUA from WSAB.

The NPUA will perform an annual audit which will review all parts of the Wildfire Mitigation Plan, as well as a review of both pending and completed maintenance work identified within the NPUA's service territory. As well as verifying overhead and underground facilities that were inspected in the previous year.

E. IDENTIFYING AND CORRECTING DEFICIENCIES IN THE PLAN

Upon finding any deficiencies in performance against the plan or need for improvement in the Plan itself, the NPUA will be responsible for correcting the deficiencies.

F. MONITORING THE EFFECTIVENESS OF INSPECTIONS

NPUA's third party verifier will review various aspects of the risk reduction measure of party of this Wildfire Mitigation Plan. Depending on the quality of performance and value received from the third-party entity, the process may be expanded further to additional potential risk reduction measures.

Appendix 1:

DRAFT RESOLUTION 2024-XX

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NEEDLES, CALIFORNIA, ADOPTING THE NEEDLES PUBLIC UTILITY WILDFIRE MITIGATION PLAN VERSION 4.0.

WHEREAS, the City of Needles/Needles Public Utility Authority is a general law municipality governed by elected city council members; and

WHEREAS, City of Needles owns and operates a retail electrical energy distribution system which serves load to end-use costumers in an assigned area of service (Needles Public Utility Authority); and

WHEREAS, SB 901, amending California Public Utilities Code ("CPUC") Section 8387, requires all POU's to prepare a wildfire mitigation plan before January 1, 2020, and annually thereafter; and

WHEREAS, SB 1054, amending CPUC Section 8387, requires each POU to submit its wildfire mitigation plan to the California Wildfire Safety Advisory Board (WSAB") by July 1, 2020 and every annually thereafter; and

WHEREAS, pursuant to California Public Utilities Code Section 326.2, WSAB will review City of Needles/Needles Public Utility Authority's Electric Utility's Wildfire Mitigation Plan and will provide comments and advisory opinions on the content and sufficiency of each plan.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Needles, California, declares, determines, and orders as follows:

SECTION 1. Adopt Resolution, adopting City of Needles/Needles Public Utility Authority Electric Utility's Wildfire Mitigation Plan ("WMP") dated June 2023 and authorize the City Manager and his designees to implement the mitigation measures documented in the plan.

SECTION 2. The City Clerk shall certify to the adoption of this Resolution and shall cause a certified resolution to be filed in the book for original resolutions.

PASSED, APPROVED, AND ADOPTED at a regular meeting of the City Council of the City of Needles, California, held on the 13th day of June 2023, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Mayor

(SEAL)

ATTEST: _____ City Clerk

APPROVED AS TO FORM:

_____ City Attorney



City of Needles, California Request for Commission Action

CITY COUNCIL BOARD OF PUBLIC UTILITIES Regular Special

Meeting Date: October 1, 2024

Title: Accept the Engineering Evaluation & Feasibility Study, Needles Solar Energy Sites Evaluation dated August 12, 2024 as prepared by Unisol Solar Energy Solutions

Background: The Board of Public Utilities established an Alternative Energy Ad Hoc Committee in 2022. The mission of the Alternative Energy Ad Hoc Committee is to review different potential energy generation sources and meet the State of California’s renewable energy goals.

The Committee has reviewed solar PPA proposals/developments, wind and pump hydro alternatives. The Committee has requested a solar feasibility study be issued to seek professional consulting services to evaluate and determine the suitability of facility rooftops and site developments of City-owned sites. On April 2, 2024 Unisol was selected and awarded the contract to develop a solar feasibility plan.

This solar engineering feasibility study aims to analyze possible solar energy sites to supply power to the City’s utility via a Power Purchase agreement or a city-owned design-build solar field. The primary focus is photovoltaic (PV) system installations as a ground-mount array on one or more of ten (10) possible sites on or near the 69KV transmission service line for the Needles Public Utility Authority utility provider.

The audit field team focused on these 10 Sites with the audit concentrating on deriving feasibility ratings for potential solar projects that can be employed to reduce costs, improve reliability and achieve CARB standards in the most economical way.

Fiscal Impact: \$37,513 was funded by the adopted FY23/24 electric budget.

Environmental Impact: Reduction of Renewable Energy Credits and Greenhouse Gas Allowances required by the NPUA.

Recommended Action: Accept the Engineering Evaluation & Feasibility Study, Needles Solar Energy Sites Evaluation dated August 12, 2024 as prepared by Unisol Solar Energy Solutions.

Submitted By: Alternative Energy Ad Hoc Committee

City Manager Approval: Rainie Torrance for Patrick Martinez Date: 9/25/24

Other Department Approval (when required): _____ Date: _____

Approved: <input type="checkbox"/>	Not Approved: <input type="checkbox"/>	Tabled: <input type="checkbox"/>	Other: <input type="checkbox"/>
			Agenda Item: _____

Engineering Evaluation & Feasibility Study

Needles Solar Energy Sites Evaluation



Prepared for
City of Needles, CA
For the benefit of the
Needles Public Utility Authority

by
Arlen Barksdale, PhD
Chief Technology Officer
UniSol Solar

Control Copy
___ of ___

August 12, 2024

August 12, 2024

Rainie Torrance
Utilities PUA Manager
City of Needles
817 Third Street
Needles, CA 92363

Re: **City of Needles Solar Engineering Evaluation & Feasibility Study**

Dear Ms. Torrance:

Thank you for the opportunity to perform an Engineering Evaluation and Feasibility Study (EEFS) on the City of Needles's solar infrastructure development opportunities and multiple site surveys pursuant to your RFP award of April 12 last. Attached please find our report for your review.

In furtherance of implementing the ultimate needs of solar development, we feel strongly that our industry experience, engineering and energy conservation expertise, and superior value will make us the clear choice for your future utility scale solar energy and RECs requirements, whether via a PPA or turn-key utility design-build projects.

We hope to continue to serve you as you move forward to address your energy purchase and/or facility needs.

Sincerely,



Arlen Barksdale, PhD
Physicist and Engineer
UniSol Solar, a division of Arborvitae Enterprises, LLC
in cooperation with
UCSD Jacobs School of Engineering

1968 Circle Park Lane • Encinitas, CA 92024 • drarlenb@gmail.com • 760.533.8714

Engineering Solar Feasibility Study – City of Needles

EXECUTIVE SUMMARY ABSTRACT

The goal of this solar engineering feasibility study is to analyze possible solar energy sites to supply power to the City’s utility via a Power Purchase agreement or a city-owned design-build solar field. The primary focus is photovoltaic (PV) system installations as a ground-mount array on one or more of ten (10) possible sites on or near the 69KV transmission service line for the Needles Public Utility Authority utility provider.

The annual projected alternative energy requirement per the California Air Resources Board (CARB) is used to establish the minimum size project of 3 MW for efficient solar placement. Electrical services extensions required to interconnect the potential array location the existing grid were evaluated to determine the estimated interconnection cost. Other financial impacts such as the current design-build cost per MW dc as well as anticipated extraordinary civil engineering costs and land-related studies (e.g, CEQA, biological, archeological, seismic, SWPP, etc.) were considered to estimate the overall cost of the facility and its effective power purchase agreement (PPA) rate.

This analysis can be used to determine if investing in its own solar electric energy generating plant (financed via grant or bond) will meet the City’s long-term goals. Additionally, a PPA with a contract-end ownership flip to the City option is explored to tailor an optimum project to the City’s utility generation goals. The output of this Feasibility Study includes a detailed spreadsheet of each site analysis report on installation costs and expected PPA rates with array sizing and a conceptual one-line electrical design.

The conclusion of this study demonstrates that meaningful immediate short-term electrical power purchase savings (avoided costs) under current WAPA wholesale pricing, plus renewable energy certificates (RECs) and greenhouse gas emissions offsets (GHGs) avoided costs, is obtainable within the current municipal budget with an additional advantage of a 30 year long-term savings (avoided costs) over WAPA power purchase costs and the benefit of CARB compliance for renewable energy generation 30% goal. Additionally, an ownership flip at a significantly reduced price (e.g. scrap cost) can be obtained at contract endpoint for a PPA approach.



Engineering Solar Feasibility Study – City of Needles

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Engineering Solar Feasibility Study – City of Needles

Introduction



Needles is a city in eastern San Bernardino County, California, in the Mojave Desert region of Southern California. Situated on the western banks of the Colorado River, Needles is located near the California border with Arizona and Nevada. The city is accessible via Interstate 40 and U.S. Route 95. The population was 4,959 at the 2020 census, up from 4,844 at the 2010 census.

Needles was founded in May 1883 during the construction of the Atchison, Topeka and Santa Fe Railway, which originally crossed the Colorado River at Eastbridge, Arizona three miles southeast of modern Needles. Needles was named after "The Needles", a group of pinnacles in the Mohave Mountains on the Arizona side of the river.

Needles was a major stop on the historic U.S. Route 66 highway from the 1920s through the 1960s. For migrants from the Midwest Dust Bowl in the 1930s, it was the town that marked their arrival in California. The city is lined with motels and other shops from that era. Needles is now a tourism and recreation center. The city is the eastern gateway to the Mojave National Preserve, a scenic desert area.

The City of Needles has currently engaged Arborvitae Enterprises LLC through a public awarded consultation to achieve the following:

- Evaluate feasibility of ten (10) potential solar sites
- Rate these sites as to least-to-most feasible
- Estimate design build costs and PPA rates

The audit field team focused on these 10 Sites with the audit concentrating on deriving feasibility ratings for potential solar projects that can be employed to reduce costs, improve reliability and achieve CARB standards in the most economical way. Below is a map of those ten potential solar sites which are under consideration and were investigated (the corresponding information gathered and evaluated is listed in Appendix D).



Needles Community with 10 potential solar Sites under consideration:



Project Description and Analysis

Site #1 – Old treatment Plant 10 ac

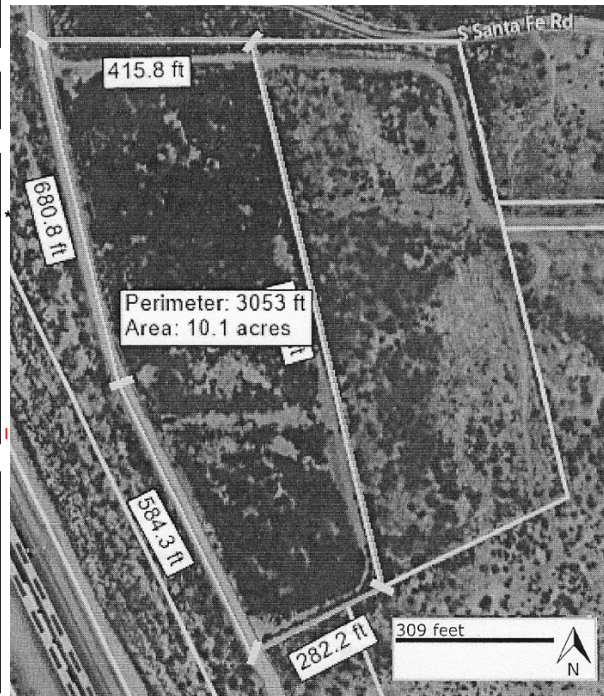
Option A and B compare 3rd party PPA w/ ownership flip with Municipal bond financing with outright ownership as to PPA rates and desirability ratings:

Option A (Site 1)- This 10 ac tract is fenced and can easily be repurposed as a solar field,

- Proposed ownership: 3rd party PPA structure with ownership flip to Needles at 30 yr
- Site Capacity: 3MW dc furnishing 2.499 MWac plate
- Production: outputting 6,894 MWhr in year 1
- Permitting: CEQA and study reports would be negligible cost
- Interconnect cost: minimal with 69kv line connection only .04 mi away
- Civil: flat already used land with negligible site prep cost
- Project estimated cost: \$5,025,000
- Project effective PPA rate: \$0.0518/kwhr
- Site desirability rating (scale 1 to 10): **7.02**

Engineering site review and analysis report sheet for Site #1-A

Project Assumptions		
General		
Plate Capacity (MWac):		2.500
DC-AC derate	1.20	83.33%
Total Capacity (MWdc)		3.00
Annual Production Yr 1 MWhr		6,894
Yield kwhr/yr/kwdc	bifacial	2,298
Cash Flow Assumptions		
Revenues	1st Full year	\$357,094
	Monthly	\$29,757.81
Effective Price per kWh*	30 year lease/PPA	\$0.0518
PPA escalation rate		1.50%
Expenses		31
O&AM (annual)		\$35,000
Insurance w/ decri	5%	\$7,395
Utility maint fee SCE	0.0%	\$0
Land Lease (plus RE tax)		\$9
	tot ann exp init	\$42,404
Increases by inflation-begin in year...		2
	CFADS - 1st year	\$314,690
Annual Expenses Escalation (%)		1.75%
CAPEX		
EPC turnkey	1.450	\$4,350,000
misc(intrcn,civil, mitig)	0	\$0
Dvp, commission include	0.2250	\$675,000
unallocated reserve		\$0
Total project costs		\$5,025,000
	Cost per watt	2.010
Construction period max (months)		10



Option B (Site 1) - This 10 ac tract is fenced and can easily be repurposed as a solar field,

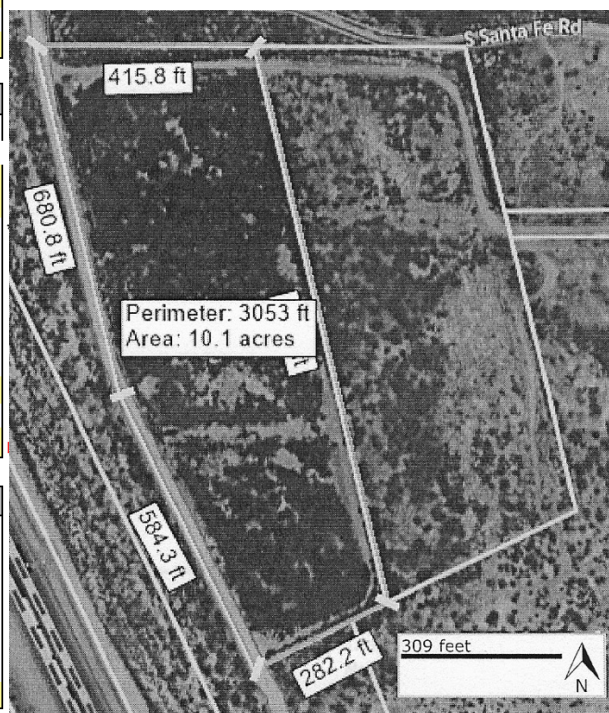
- Proposed ownership: direct Needles ownership at outset
- Site Capacity: 3MW dc furnishing 2.499 MWac plate
- Production: outputting 6,894 MWhr in year 1
- Permitting: CEQA and study reports would be negligible cost
- Interconnect cost: minimal with 69kv line connection only .04 mi away
- Civil: flat already used land with negligible site prep cost
- Project estimated cost: \$5,025,000
- Project effective PPA rate: \$0.0364/kwhr
- Site desirability rating (scale 1 to 10): **10.0** (highest)

Engineering site review and analysis report sheet for Site #1-B

Project Assumptions			
General			
Plate Capacity (MWac):			2.500
DC-AC derate	1.20		83.33%
Total Capacity (MWdc)			3.00
Annual Production Yr 1 MWhr			6,894
Yield kwhr/yr/kwdc	bifacial		2,298

Cash Flow Assumptions			
Revenues	1st Full year		\$250,655
	Monthly		\$20,887.91
Effective Price per kWh*	30 year lease/PPA		\$0.0364
PPA escalation rate			1.50%
Expenses			31
O&AM (annual)			\$35,000
Insurance w/ deers	5%		\$7,395
Utility maint fee SCE	0.0%		\$0
Land Lease (plus RE tax)			\$9
	tot ann exp init		\$42,404
Increases by inflation-begin in year...			2
	CFADS - 1st year		\$208,251
Annual Expenses Escalation (%)			1.75%

CAPEX			
EPC turnkey	1.450		\$4,350,000
misc(intrcn,civil, mitig)	0		\$0
Dvp, commission include	0.2250		\$675,000
unallocated reserve			\$0
Total project costs			\$5,025,000
	Cost per watt		2.010
Construction period max (months)			12



Project Description and Analysis

Site #2 – Landfill near airport 120 ac

This 120 ac tract is former landfill and can easily be repurposed as a solar field,

- Proposed ownership: direct Needles ownership at outset
- Site Capacity: CARB guidelines 30%: 3MW dc furnishing 2.499 MWac plate
- Production: outputting 6,894 MWhr in year 1
- Permitting: CEQA and study reports would be negligible cost
- Interconnect cost: approx. \$2M with 69kv line connection 2 mi away
- Civil: flat already used land with negligible site prep cost. Question of depth of piling penetration.
- Project estimated cost: \$7,125,000
- Project effective PPA rate: \$0.04877/kwhr
- Site desirability rating (scale 1 to 10): **7.46** (moderately high)

Engineering site review and analysis report sheet for Site #2

Project Assumptions		
General		
Plate Capacity (MWac):		2,500
DC-AC derate	1.20	83.33%
Total Capacity (MWdc)		3.00
Annual Production Yr 1 MWhr		6,894
Yield kwhr/yr/kwdc	bifacial	2,298
Cash Flow Assumptions		
Revenues	1st Full year	\$336,206
	Monthly	\$28,017.15
Effective Price per kWh*	30 year lease/PPA	\$0.0488
PPA escalation rate		1.50%
Expenses		31
O&AM (annual)		\$35,000
Insurance w/ deccrs	5%	\$7,395
Utility maint fee SCE	0.0%	\$0
Land Lease (plus RE tax)		\$9
	tot ann exp init	\$42,404
Increases by inflation-begin in year...		2
	CFADS - 1st year	\$293,802
Annual Expenses Escalation (%)		1.75%
CAPEX		
EPC turnkey	1.450	\$4,350,000
Interconnection	666667	\$2,000,001
Dvp, commission include	0.2250	\$675,000
site & civil		\$100,000
Total project costs		\$7,125,001
	Cost per watt	2.850
Construction period max (months)		12

Project Description and Analysis

Site #3 – PPA offer near airport 120 ac

This 120 ac tract is reasonably level and can be repurposed as a solar field,

- Proposed ownership: 3rd party PPA structure with no indication yet of any ownership flip terms
- Site Capacity: CARB guidelines 30%: 3MW dc furnishing 2.499 MWac plate
- Production: outputting 6,894 MWhr in year 1
- Permitting: CEQA and study reports would be modest cost
- Interconnect cost: approx. \$4M with 69kv line connection 4 mi away
- Civil: reasonably flat land with low site prep cost
- Project estimated cost: \$9,050,000
- Project effective PPA rate: \$0.0882/kwhr
- Site desirability rating (scale 1 to 10): **4.12** (moderately low)

Engineering site review and analysis report sheet for Site #3

Project Assumptions		
General		
Plate Capacity (MWac):		2.500
DC-AC derate	1.20	83.33%
Total Capacity (MWdc)		3.00
Annual Production Yr 1 MWhr		6,894
Yield kwhr/yr/kwdc	bifacial	2,298
Cash Flow Assumptions		
Revenues	1st Full year	\$608,024
	Monthly	\$50,668.70
Effective Price per kWh*	30 year lease/PPA	\$0.0882
PPA escalation rate		1.50%
Expenses		
O&AM (annual)		\$35,000
Insurance w/ decri	5%	\$7,395
Utility maint fee SCE	0.0%	\$0
Land Lease (plus RE tax)		\$9
	tot ann exp init	\$42,404
Increases by inflation-begin in year...		2
	CFADS - 1st year	\$565,620
Annual Expenses Escalation (%)		1.75%
CAPEX		
EPC turnkey	1.450	\$4,350,000
Interconnection	1333334	\$4,000,002
Dvp, commission include	0.2250	\$675,000
site & civil		\$25,000
Total project costs		\$9,050,002
	Cost per watt	3.620
Construction period max (months)		12



Project Description and Analysis

Site #4 – West side 38 ac

This 38 ac tract is raw land with rolling flood wash and cannot be easily developed as a solar field,

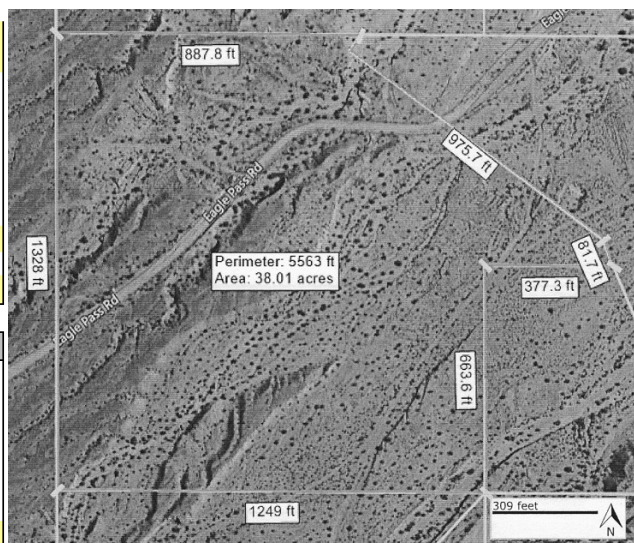
- Proposed ownership: direct Needles ownership at outset
- Site Capacity: CARB guidelines 30%: 3MW dc furnishing 2.499 MWac plate
- Production: outputting 6,894 MWhr in year 1
- Permitting: CEQA and study reports would be moderate cost
- Interconnect cost: approx. \$1M with 69kv line connection 1 mi away
- Civil: raw land with rolling flood wash est \$2M cost to remediate
- Project estimated cost: \$8,050,000
- Project effective PPA rate: \$0.05423/kwhr
- Site desirability rating (scale 1 to 10): **6.71** (moderate)

Engineering site review and analysis report sheet for Site #4

Project Assumptions			
General			
Plate Capacity (MWac):			2.500
DC-AC derate	1.20		83.33%
Total Capacity (MWdc)			3.00
Annual Production Yr 1 MWhr			6,894
Yield kwhr/yr/kwdc	bifacial		2,298

Cash Flow Assumptions			
Revenues	1st Full year		\$373,845
	Monthly	\$31,153.78	
Effective Price per kWh*	30 year lease/PPA		\$0.0542
PPA escalation rate			1.50%
Expenses			
O&AM (annual)			\$35,000
Insurance w/ decri	5%		\$7,395
Utility maint fee SCE	0.0%		\$0
Land Lease (plus RE tax)			\$9
	tot ann exp init		\$42,404
Increases by inflation-begin in year...			2
	CFADS - 1st year		\$331,441
Annual Expenses Escalation (%)			1.75%

CAPEX			
EPC turnkey	1.450		\$4,350,000
Interconnection	333334		\$1,000,002
Dvp, commission include	0.2250		\$675,000
site & civil			\$2,025,000
Total project costs			\$8,050,002
	Cost per watt		3.220
Construction period max (months)			12



Project Description and Analysis

Site #5 – West side 23 ac

This 23.79 ac tract is raw land with rolling flood wash and cannot be easily developed as a solar field,

- Proposed ownership: direct Needles ownership at outset
- Site Capacity: CARB guidelines 30%: 3MW dc furnishing 2.499 MWac plate
- Production: outputting 6,894 MWhr in year 1
- Permitting: CEQA and study reports would be moderate cost
- Interconnect cost: approx. \$1M with 69kv line connection 1 mi away
- Civil: raw land with rolling flood wash est \$2M cost to remediate
- Project estimated cost: \$8,050,000
- Project effective PPA rate: \$0.05422/kwhr
- Site desirability rating (scale 1 to 10): **6.71** (moderate)

Engineering site review and analysis report sheet for Site #5

Project Assumptions			
General			
Plate Capacity (MWac):			2.500
DC-AC derate	1.20		83.33%
Total Capacity (MWdc)			3.00
Annual Production Yr 1 MWhr			6,894
Yield kwhr/yr/kwdc	bifacial		2,298

Cash Flow Assumptions			
Revenues	1st Full year		\$373,776
	Monthly		\$31,148.03
Effective Price per kWh*	30 year lease/PPA		\$0.0542
PPA escalation rate			1.50%
Expenses			31
O&AM (annual)			\$35,000
Insurance w/ decri	5%		\$7,395
Utility maint fee SCE	0.0%		\$0
Land Lease (plus RE tax)			\$9
	tot ann exp init		\$42,404
Increases by inflation-begin in year...			2
	CFADS - 1st year		\$331,372
Annual Expenses Escalation (%)			1.75%

CAPEX			
EPC turnkey	1.450		\$4,350,000
Interconnection	333334		\$1,000,002
Dvp, commission include	0.2250		\$675,000
site & civil			\$2,025,000
Total project costs			\$8,050,002
	Cost per watt		3.220
Construction period max (months)			12



Project Description and Analysis

Site #6 – SW corner off residential 25 ac

This 24.91 ac tract is raw land with rolling flood wash with small acreage usable as a solar field,

- Proposed ownership: direct Needles ownership at outset
- Site Capacity: CARB guidelines 30%: 3MW dc furnishing 2.499 MWac plate
- Production: outputting 6,894 MWhr in year 1
- Permitting: CEQA and study reports would be moderate cost appr \$35K
- Interconnect cost: approx. \$1M with 69kv line connection 1 mi away
- Civil: raw land with rolling flood wash but some flat est \$100K cost to remediate
- Project estimated cost: \$6,160,000
- Project effective PPA rate: \$0.0431/kwhr
- Site desirability rating (scale 1 to 10): **8.44** (high)

Engineering site review and analysis report sheet for Site #6

Project Assumptions			
General			
Plate Capacity (MWac):			2.500
DC-AC derate	1.20		83.33%
Total Capacity (MWdc)			3.00
Annual Production Yr 1 MWhr			6,894
Yield kwhr/yr/kwdc	bifacial		2,298

Cash Flow Assumptions			
Revenues	1st Full year		\$296,912
	Monthly		\$24,742.64
Effective Price per kWh*	30 year lease/PPA		\$0.0431
PPA escalation rate			1.50%
Expenses			
O&AM (annual)			\$35,000
Insurance w/ decri	5%		\$7,395
Utility maint fee SCE	0.0%		\$0
Land Lease (plus RE tax)			\$9
	tot ann exp init		\$42,404
Increases by inflation-begin in year...			2
	CFADS - 1st year		\$254,508
Annual Expenses Escalation (%)			1.75%

CAPEX			
EPC turnkey	1.450		\$4,350,000
Interconnection	333333.4		\$1,000,000
Dvp, commission include	0.2250		\$675,000
site & civil			\$135,000
Total project costs			\$6,160,000
	Cost per watt		2.464
Construction period max (months)			12



Project Description and Analysis

Site #7 – Switch Station 2 ac

This 2 ac tract is clean flat land within switch yard premises- small acreage usable as a small solar field,

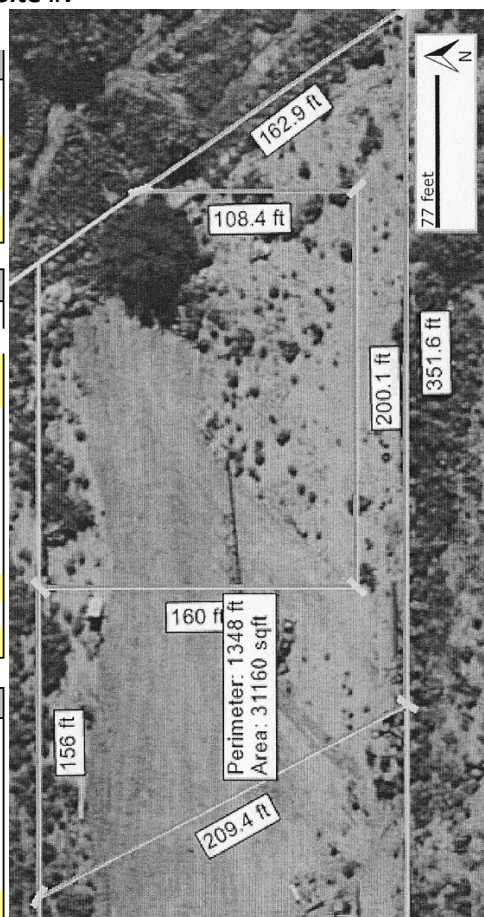
- Proposed ownership: direct Needles ownership at outset (some BLM overlap to resolve)
- Site Capacity: 500kw dc furnishing 417 KWac plate
- Production: outputting 1149 MWhr in year 1 (small operation may not be worth the effort)
- Permitting: CEQA and study reports would be minimal to no cost
- Interconnect cost: approx. negligible with 69kv line connection on site apprx \$50k
- Civil: flat developed commercial utility company switch yard land – minimal to no cost
- Project estimated cost: \$887,500
- Project effective PPA rate: \$0.06575/kwhr
- Site desirability rating (scale 1 to 10): 5.53 (moderate)

Engineering site review and analysis report sheet for Site #7

Project Assumptions		
General		
Plate Capacity (MWac):		0.417
DC-AC derate	1.20	83.33%
Total Capacity (MWdc)		0.50
Annual Production Yr 1 MWhr		1,149
Yield kwhr/yr/kwdc	bifacial	2,298

Cash Flow Assumptions		
Revenues	1st Full year	\$75,543
	Monthly	\$6,295.29
Effective Price per kWh*	30 year lease/PPA	\$0.0658
PPA escalation rate		1.50%
Expenses		
O&AM (annual)		\$35,000
Insurance w/ decri	5%	\$1,233
Utility maint fee SCE	0.0%	\$0
Land Lease (plus RE tax)		\$2
	tot ann exp init	\$36,234
Increases by inflation-begin in year...		2
	CFADS - 1st year	\$39,309
Annual Expenses Escalation (%)		1.75%

CAPEX		
EPC turnkey	1.450	\$725,000
Interconnection	100000	\$50,000
Dvp, commission include	0.2250	\$112,500
site & civil		\$0
Total project costs		\$887,500
	Cost per watt	2.130
Construction period max (months)		6



Project Description and Analysis

Site #8 – Near new treatment plant 4 ac

This 3.589 ac tract is raw land with small acreage usable as a solar field,

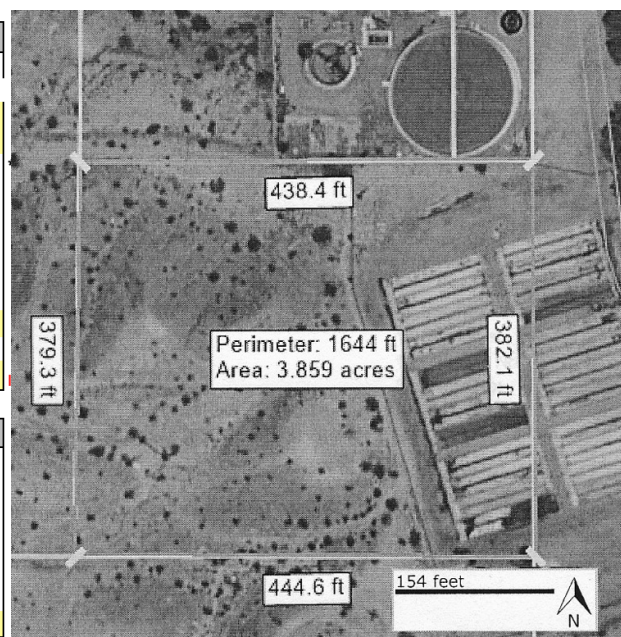
- Proposed ownership: direct Needles ownership at outset
- Site Capacity: 2MW dc furnishing 1.667 MWac plate
- Production: outputting 4,596 MWhr in year 1
- Permitting: CEQA and study reports would be moderate cost
- Interconnect cost: approx. \$150K with 69kv line connection nearby
- Civil: raw land est \$117K cost to remediate
- Project estimated cost: \$3,617,000
- Project effective PPA rate: \$0.1015/kwhr
- Site desirability rating (scale 1 to 10): **3.58** (low)

Engineering site review and analysis report sheet for Site #8

Project Assumptions		
General		
Plate Capacity (MWac):		1.667
DC-AC derate	1.20	83.33%
Total Capacity (MWdc)		2.00
Annual Production Yr 1 MWhr		4,596
Yield kwhr/yr/kwdc	bifacial	2,298

Cash Flow Assumptions		
Revenues	1st Full year	\$190,680
	Monthly	\$15,889.98
Effective Price per kWh*	30 year lease/PPA	\$0.0415
PPA escalation rate		1.50%
Expenses		31
O&AM (annual)		\$35,000
Insurance w/ decri	5%	\$4,930
Utility maint fee SCE	0.0%	\$0
Land Lease (plus RE tax)		\$6
	tot ann exp init	\$39,936
Increases by inflation-begin in year...		2
	CFADS - 1st year	\$150,744
Annual Expenses Escalation (%)		1.75%

CAPEX		
EPC turnkey	1.450	\$2,900,000
Interconnection	75000	\$150,000
Dvp, commission include	0.2250	\$450,000
site & civil		\$117,000
Total project costs		\$3,617,000
	Cost per watt	2.170
Construction period max (months)		7



Project Description and Analysis

Site #9 – Old ice plant near RR 50 ac

This 50 ac tract is rough land, some heavily treed, some steep slopes, with only small acreage usable as a solar field,

- Proposed ownership: direct Needles ownership at outset
- Site Capacity: 1MW dc furnishing 833 KWac plate
- Production: outputting 2298 MWhr in year 1
- Permitting: CEQA and study reports would be moderate cost as repurposed commercial
- Interconnect cost: approx. \$375K with 69kv line connection nearby up the hill
- Civil: rough land est \$117K cost to remediate
- Project estimated cost: \$2,167,000
- Project effective PPA rate: \$0.0561/kwhr
- Site desirability rating (scale 1 to 10): **6.48** (moderate)

Engineering site review and analysis report sheet for Site #9

Project Assumptions		
General		
Plate Capacity (MWac):		0.833
DC-AC derate	1.20	83.33%
Total Capacity (MWdc)		1.00
Annual Production Yr 1 MWhr		2,298
Yield kwhr/yr/kwdc	bifacial	2,298
Cash Flow Assumptions		
Revenues	1st Full year	\$128,958
	Monthly	\$10,746.51
Effective Price per kWh*	30 year lease/PPA	\$0.0561
PPA escalation rate		1.50%
Expenses		31
O&AM (annual)		\$35,000
Insurance w/ deers	5%	\$2,465
Utility maint fee SCE	0.0%	\$0
Land Lease (plus RE tax)		\$3
	tot ann exp init	\$37,468
Increases by inflation-begin in year...		2
	CFADS - 1st year	\$91,490
Annual Expenses Escalation (%)		1.75%
CAPEX		
EPC turnkey	1.450	\$1,450,000
Interconnection	375000	\$375,000
Dvp, commission include	0.2250	\$225,000
site & civil		\$117,000
Total project costs		\$2,167,000
	Cost per watt	2.600
Construction period max (months)		12



Project Description and Analysis

Site #10 – Bureau reclamation land 14 ac

This 13.75 ac tract is commercial BOR land flat acreage all usable as a solar field,

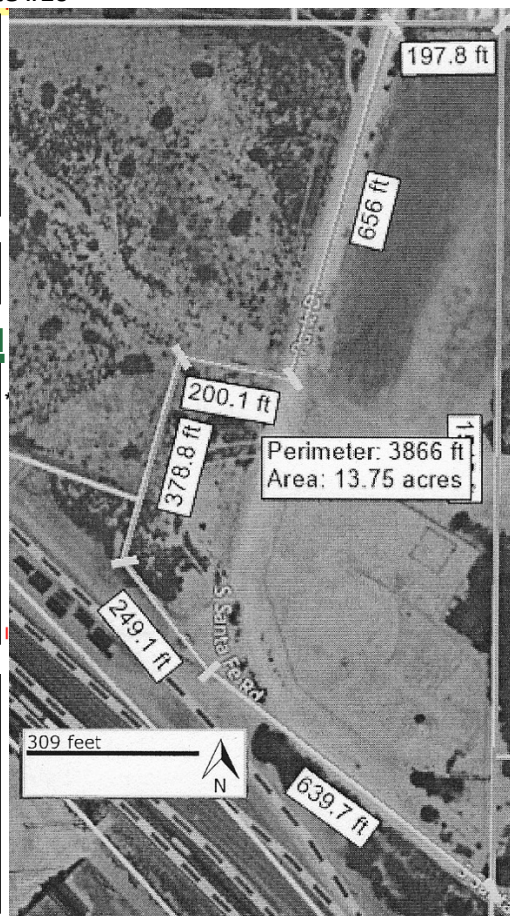
- Proposed ownership: direct Needles ownership at outset (requires arrangement with BOR)
- Site Capacity: CARB guidelines 30%: 3MW dc furnishing 2.499 MWac plate
- Production: outputting 6,894 MWhr in year 1
- Permitting: CEQA and study reports should be negligible as repurposing commercially used cleared land approx. \$17K
- Interconnect cost: approx. \$150K with 69kv line connection across rail road
- Civil: raw land all flat and usable est \$100K cost to clean up stored gravel and rock piles
- Project estimated cost: \$5,292,000
- Project effective PPA rate: \$0.0379/kwhr
- Site desirability rating (scale 1 to 10): **9.58** (very high)

Engineering site review and analysis report sheet for Site #10

Project Assumptions			
General			
Plate Capacity (MWac):			2.500
DC-AC derate	1.20		83.33%
Total Capacity (MWdc)			3.00
Annual Production Yr 1 MWhr			6,894
Yield kwhr/yr/kwdc	bifacial		2,298

Cash Flow Assumptions			
Revenues	1st Full year		\$261,547
	Monthly		\$21,795.58
Effective Price per kWh*	30 year lease/PPA		\$0.0379
PPA escalation rate			1.50%
Expenses			
O&AM (annual)			\$35,000
Insurance w/ dehrs	5%		\$7,395
Utility maint fee SCE	0.0%		\$0
Land Lease (plus RE tax)			\$9
	tot ann exp init		\$42,404
Increases by inflation-begin in year...			2
	CFADS - 1st year		\$219,143
Annual Expenses Escalation (%)			1.75%

CAPEX			
EPC turnkey	1.450		\$4,350,000
Interconnection	50000		\$150,000
Dvp, commission include	0.2250		\$675,000
site & civil			\$117,000
Total project costs			\$5,292,000
		Cost per watt	2.117
Construction period max (months)			12



Engineering Solar Feasibility Study – City of Needles

Summary & Conclusions

The goal of this feasibility study was to analyze ten (10) site locations for potential photovoltaic (PV) electrical generation systems for direct consumption by City of Needles Public Utility Authority and compute avoided costs.

Location Summary: The designated potential locations on various sites in and about Needles, San Bernardino County, California were evaluated for cost of installation including costs of design-build, interconnection, site preparation, studies for permitting and the expected effective power purchase costs per kwhr. The results were tabulated and rated as to desirability on a scale of 1 to 10, with 10 being the best. See individual project descriptions above and detail of the data compilation on the relevant sites in Appendix D. A summary of the key data is tabulated below in Table 1. Of note is that approximately five of the ten Sites rated 7 or above which are potentially desirable locations for a utility-owned solar electric generation plant that would satisfy the coming CARB requirements for 30% renewable mix in the utility's community power needs.

Table 1 Site Summary

City of Needles Potential Solar Sites Analysis							
item	description	land size	location: lat-long	Total estim project cost	probable financing	net effective PPA rate cost incl infrastructure	Comparative Desirability Rating - 0-10 (10 best)
1-b	old treatment plant	10 ac	34.82820 N -114.58794 W	\$ 5,025,001	city bond	0.03636	10.00
10	BOR land	14 ac	34.83512 N -114.59254 W	\$ 5,292,000	city bond	0.03794	9.58
6	SW corner off residential	25 ac	34.82703 N -114.62482 W	\$ 5,660,000	city bond	0.04307	8.44
2	landfill near airport	120 ac	34.79494 N -114.61343 W	\$ 7,125,000	city bond	0.04877	7.46
1-a	old treatment plant	10 ac	34.82820 N -114.58794 W	\$ 5,025,000	PPA	0.0518	7.02
5	west side	23 ac	34.83342 N -114.62757 W	\$ 8,050,000	city bond	0.05422	6.71
4	west side	35 ac	34.84189 N -114.62461 W	\$ 8,050,000	city bond	0.05423	6.71
9	old ice plant by RR	50 ac	34.82687 N -114.59047 W	\$ 2,167,000	city bond	0.05612	6.48
7	switch station	2-3 ac	34.8569 N -114.62501 W	\$ 887,500	city bond	0.06575	5.53
3	PPA offer by airport Hwy 95	25 ac mol	34.76761 N -114.60018 W	\$ 9,050,000	PPA	0.0882	4.12
8	near new trtmt plant	4ac	34.8286 N -114.59276 W	\$ 3,617,000	city bond	0.1015	3.58

Avoided Costs (savings) summary:

- a) **From reduced PPA costs:** Note that a preponderance of the Sites could produce power for the municipal utility below the current WAPA wholesale price creating a near-term savings, and with the savings amortized over a 30 year lifespan of the alternative energy plant, a further avoided cost advantage of some **\$15,891,866** is obtainable. An additional advantage is an emergency reliability backup of at least 30% of the demand load in the event of outages from WAPA deliveries of electricity due to natural or man-made disasters.
- b) **From reduced REC purchases:** The utility is currently purchasing 50,000 RECs (renewable energy certificates 1 REC = 1 mwhr retail power usage) annually to satisfy statutory Renewable Portfolio Standards (RPS) requirements (AB2514 Public Owned Utility responsibility and CA Pub Util Code Sec 399.11 et seq.) from a 3rd party (3Degrees Group, Inc.) to compensate for non-renewable generation at \$412,500 cost per year (\$8.25/REC currently in a 10 year contract). With the installation of 3 MW solar power generation (producing some 6894 RECs per year or 192,494 over 30 yr), the utility will benefit an additional minimum avoided costs of **\$2,476,556** over the initial 30 year operation cycle of the generating facility.
- c) **From reduced GHG purchases:** Additionally, the Needles Public Utility Authority currently has mandatory GHG (greenhouse gas emissions – carbon dioxide) reporting requirements as an Electric Power Entity (EPE) under AB-32 (GHG reporting). The current annual CO₂e source includes power imports e-tagged from WAPA (Western Area Power Administration) delivery point of 23,130.26 metric tons as verified by WZI Inc. (independent 3rd party consultant in conformance with AB-104462). Accounting for a 30% free allowance, the net 70% responsibility for the utility computes to 15,491.18 metric tons. Currently the annual bill payment requirement to purchase offsetting DEBs (Direct Environmental Benefits) stands at \$1.138M, paid in triannual installments. With the installation of 3 MW solar power generation (producing some 30% of power purchases, the conservative estimate of annual GHG savings is \$ 341,400 in year1). In sum the additional avoided costs for GHG reduced emissions over the 30 year life cycle of the solar generating plant at a 2.5% CPI is approximately **\$14,970.922**.
- d) **Total avoided costs:** Appendix C summarizes all of the avoided costs totaling some **\$ 33,339,243** with the development and operation of its own renewable energy generating plant. Note that with a proposed 3MW solar plant costing about \$5,025,000 that the avoided costs alone pay back this capital expense in 7 years.



APPENDICES

Attached as:

- A. Award Letter
- B. Solar Meteo and Production Analysis
- C. Calculation of Avoided Cost
- D. Needles Solar Site Data Analysis Chart
- E. Base Line Assumptions
- F. Arborvitae Company Info
- G. Resume of Key Staff
- H. Certification

Appendix A
Award Letter



City of Needles

817 Third Street, Needles, California 92363
(760) 326-2113 • FAX (760) 326-6765

www.cityofneedles.com

*Mayor Janet Jernigan
Vice Mayor Kirsten Merritt
Councilmember Tona Belt
Councilmember Ellen Campbell
Councilmember Jamie McCorkle
Councilmember JoAnne Pogue
Councilmember Henry Longbrake
City Manager Patrick Martinez*

April 12, 2024

Arborvitae Enterprises, LLC
1968 Circle Park
Encinitas, CA 92024

Attn: Arlen Barksdale

RE: **AWARD of the SOLAR PHOTOVOLTAIC FEASIBILITY STUDY**

Congratulations !!!, Arborvitae Enterprises. you have been awarded as the low bidder for the above-mentioned RFP and approved at the **04/09/2024** City Council Meeting.

I have attached the Professional Services Agreement for the project. Please print out and sign page 12 attached. If you could please scan and/or **return only the signature page 12 identified in the document** that would be great. Once the City signs all documents, I will send you a complete original copy. A Meeting will be scheduled, please send availability dates in order to set up a goals meeting.

Other documents to submit:

- Insurance required.
- Business License application

Should you have any questions, please give me a call at (760) 326-5740 Ext. 130 all documents can be forwarded to Tammy Ellmore at tellmore@cityofneedles.com

Thank you again for your participation in our RFP.

Rainie Torraine
Utilities Manager
(760) 326-5740 x 140
rtorraine@cityofneedles.com

Appendix B

Data Analysis Detail

TECHNICAL: Meteorological and Production data

Climate data for Needles Airport, California (1991–2020 normals, ^[a] extremes 1888–present) [hide]													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °F (°C)	85 (29)	92 (33)	99 (37)	107 (42)	118 (48)	125 (52)	125 (52)	123 (51)	120 (49)	112 (44)	92 (33)	83 (28)	125 (52)
Mean maximum °F (°C)	75.4 (24.1)	80.7 (27.1)	91.3 (32.9)	100.8 (38.2)	108.0 (42.2)	115.6 (46.4)	118.4 (48.0)	116.7 (47.1)	111.5 (44.2)	101.3 (38.5)	87.4 (30.8)	74.6 (23.7)	119.6 (48.7)
Mean daily maximum °F (°C)	66.4 (19.1)	71.0 (21.7)	79.1 (26.2)	86.6 (30.3)	96.2 (35.7)	106.4 (41.3)	110.5 (43.6)	109.3 (42.9)	102.6 (39.2)	89.5 (31.9)	75.1 (23.9)	64.5 (18.1)	88.1 (31.2)
Daily mean °F (°C)	56.2 (13.4)	59.9 (15.5)	66.6 (19.2)	73.7 (23.2)	83.1 (28.4)	93.0 (33.9)	98.5 (36.9)	97.4 (36.3)	90.0 (32.2)	77.0 (25.0)	63.8 (17.7)	54.7 (12.6)	76.2 (24.6)
Mean daily minimum °F (°C)	46.0 (7.8)	48.8 (9.3)	54.1 (12.3)	60.8 (16.0)	70.0 (21.1)	79.6 (26.4)	86.6 (30.3)	85.4 (29.7)	77.3 (25.2)	64.6 (18.1)	52.5 (11.4)	45.0 (7.2)	64.2 (17.9)
Mean minimum °F (°C)	34.0 (1.1)	37.1 (2.8)	41.9 (5.5)	48.6 (9.2)	56.5 (13.6)	66.2 (19.0)	75.6 (24.2)	74.9 (23.8)	65.0 (18.3)	51.5 (10.8)	39.7 (4.3)	33.4 (0.8)	31.8 (−0.1)
Record low °F (°C)	18 (−8)	22 (−6)	29 (−2)	33 (1)	39 (4)	46 (8)	57 (14)	60 (16)	40 (4)	34 (1)	25 (−4)	20 (−7)	18 (−8)
Average precipitation inches (mm)	0.73 (19)	0.79 (20)	0.51 (13)	0.18 (4.6)	0.07 (1.8)	0.04 (1.0)	0.27 (6.9)	0.39 (9.9)	0.34 (8.6)	0.22 (5.6)	0.34 (8.6)	0.44 (11)	4.32 (110)
Average precipitation days (≥ 0.01 in)	3.3	3.7	2.9	1.3	0.7	0.3	1.8	1.9	1.8	1.6	1.5	2.3	23.1
Mean monthly sunshine hours	248	254.3	310	360	403	420	403	372	330	310	240	248	3,898.3
Mean daily sunshine hours	8	9	10	12	13	14	13	12	11	10	8	8	11
Percent possible sunshine	79	82	83	92	93	97	92	90	89	88	78	81	87
Average ultraviolet index	3	4	6	8	9	10	11	10	8	5	4	2	7
Source 1: NOAA ^[16] ^[17] WRCC ^[19]													
Source 2: Weather Atlas (sun and uv) ^[20]													

SYSTEM INFO

Modify the inputs below to run the simulation.

DC System Size (kW):	<input type="text" value="3000"/>	i
Module Type:	<input type="text" value="Standard"/>	i
Array Type:	<input type="text" value="1-Axis Tracking"/>	i
System Losses (%):	<input type="text" value="9.58"/>	i
Tilt (deg):	<input type="text" value="0"/>	i
Azimuth (deg):	<input type="text" value="180"/>	i

PVWatts® Calculator



My Location **NEEDLES CA**
» Change Location

English
Español
Українська

[HELP](#) [FEEDBACK](#)

RESOURCE DATA SYSTEM INFO **RESULTS**



Go to
system info

RESULTS

[Print Results](#)

6,893,607 kWh/Year*

System output may range from 6,502,739 to 7,102,483 kWh per year near this location.
Click [HERE](#) for more information.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	4.69	371,413
February	5.95	423,790
March	7.81	596,675
April	9.66	701,041
May	10.77	785,561
June	11.40	786,483
July	9.97	705,768
August	9.69	689,456
September	8.71	616,335
October	6.71	506,598
November	4.94	372,725
December	4.20	337,762
Annual	7.88	6,893,607

Location and Station Identification

Requested Location	NEEDLES CA
Weather Data Source	Lat, Lng: 34.85, -114.62 1.2 mi
Latitude	34.85° N
Longitude	114.62° W

PV System Specifications

DC System Size	3000 kW																								
Module Type	Premium																								
Array Type	1-Axis Tracking																								
System Losses	9.58%																								
Array Tilt	0°																								
Array Azimuth	180°																								
DC to AC Size Ratio	1.2																								
Inverter Efficiency	96%																								
Ground Coverage Ratio	0.4																								
Albedo	<i>From weather file</i>																								
Bifacial	Yes (0.7)																								
Monthly Irradiance Loss	<table border="1"> <tr> <td>Jan</td><td>Feb</td><td>Mar</td><td>Apr</td><td>May</td><td>June</td> </tr> <tr> <td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td> </tr> <tr> <td>July</td><td>Aug</td><td>Sept</td><td>Oct</td><td>Nov</td><td>Dec</td> </tr> <tr> <td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td> </tr> </table>	Jan	Feb	Mar	Apr	May	June	0%	0%	0%	0%	0%	0%	July	Aug	Sept	Oct	Nov	Dec	0%	0%	0%	0%	0%	0%
	Jan	Feb	Mar	Apr	May	June																			
0%	0%	0%	0%	0%	0%																				
July	Aug	Sept	Oct	Nov	Dec																				
0%	0%	0%	0%	0%	0%																				
Ground Coverage Ratio	0.4																								

Performance Metrics

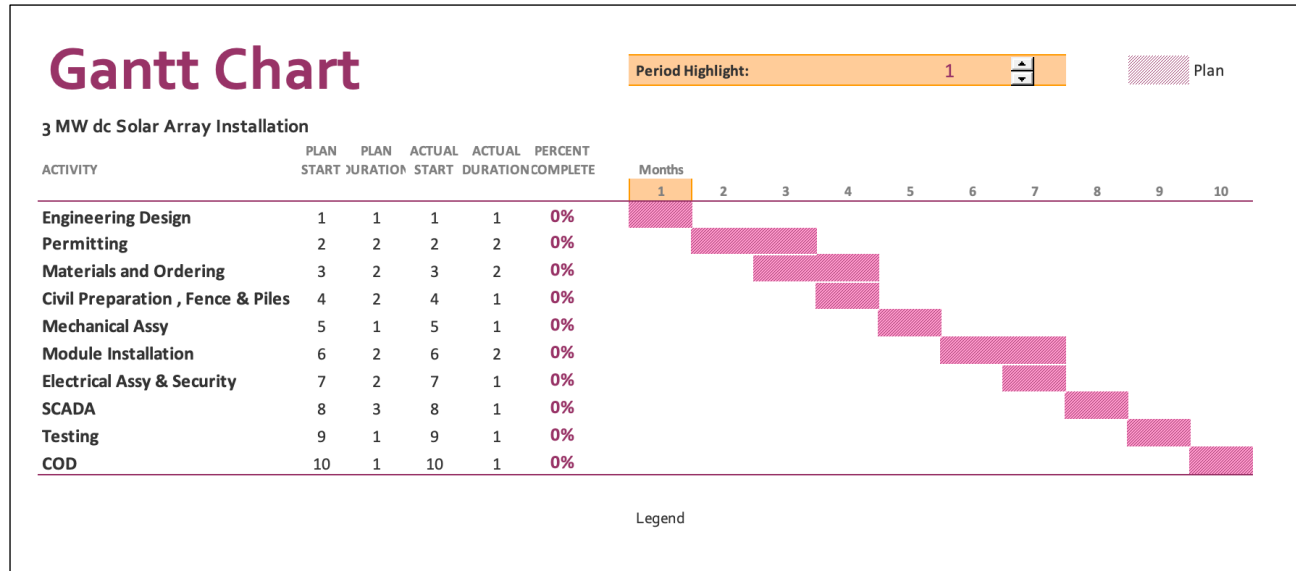
DC Capacity Factor	26.2%
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Givens: single axis tracker, bifacial solar modules, and azimuth 180 deg (south).

Calculation for Yield: = 6,642,891 kwhr/yr / 3MWdc solar array = **2297.9 kwhr/kwdcp** installed.

Calculations include compensating for random shadowing, slight variations in tilt and direction, and electrical line losses. This yield number is used in the financial modeling for each site to obtain build-design cost and effective 30 year PPA rate for comparisons with standardized variables.

Project Schedule (TIMELINE GUIDANCE): The Engineering, Procurement and Construction (EPC) timeline for design-build approximately covers 10 months following Notice to Proceed with an anticipated schedule below:



COST guidance:

Due to the government administration effecting tariffs against imports of silicon solar panels, aluminum and steel, there is a current cost driver of commodities to the upside:

CHART OF COMMODITIES AFFECTED:

- Aluminum
- Copper
- Steel
- Silicon

Comment on incentives:

- Federal tax credit (ITC) is currently 30%, decreasing thereafter.
- Although depreciation may be taken all in year 1, we utilize a 6 year MACRS model.
- The depreciation is diminished by ½ of the ITC (15%), so the effective depreciation is 85% of the EPC (engineering, procurement, construction) costs.
- The new tax law commercial federal tax rate of 20% is applied.
- The ITC will also apply to the battery charging systems powered by solar.
- Certain Municipal financial repayment structures can be taken as tax exempt but at the sacrifice of the ITC and depreciation.

Appendix C

Calculations of Avoided Costs

Needles PUA Stack-Up

AVOIDED LIFETIME COSTS and VALUE ADDED:

Avoided PPA WAPA purchases	\$15,891,866
Avoided future RECs purchases	\$ 2,476,576
Avoided GHG DEBs purchases	\$14,970,822
	\$33,339,243

Needles Owned 3 MW project - Avoided Costs (30 years)											
year	solar production kwhr/yr	WAPA purch cost per kwhr	WAPA annual cost of this solar production	Utility owned Bond Cost per yr	Utility owned Bond Cost per kwhr	Avoided cost of power purchasing	Avoided costs of RECs purch	Avoided costs of GHG cap-trade purch	Total avoided costs per year	Cummulative savings/ avoided costs	
1	6,893,607	\$ 0.0800	\$ 551,489	\$ 270,774	\$ 0.0393	\$ 280,715	\$ 56,872	\$ 341,000	\$ 678,587	\$ 678,587	
2	6,890,160	\$ 0.0820	\$ 564,993	\$ 270,774	\$ 0.0393	\$ 294,219	\$ 58,265	\$ 349,525	\$ 702,009	\$ 1,380,596	
3	6,886,715	\$ 0.0841	\$ 578,828	\$ 270,774	\$ 0.0393	\$ 308,054	\$ 59,692	\$ 358,263	\$ 726,009	\$ 2,106,605	
4	6,883,272	\$ 0.0862	\$ 593,002	\$ 270,774	\$ 0.0393	\$ 322,228	\$ 61,153	\$ 367,220	\$ 750,602	\$ 2,857,207	
5	6,879,830	\$ 0.0883	\$ 607,524	\$ 270,774	\$ 0.0394	\$ 336,750	\$ 62,651	\$ 376,400	\$ 775,801	\$ 3,633,007	
6	6,876,390	\$ 0.0905	\$ 622,400	\$ 270,774	\$ 0.0394	\$ 351,626	\$ 64,185	\$ 385,810	\$ 801,622	\$ 4,434,629	
7	6,872,952	\$ 0.0928	\$ 637,641	\$ 270,774	\$ 0.0394	\$ 366,867	\$ 65,757	\$ 395,455	\$ 828,080	\$ 5,262,708	
8	6,869,516	\$ 0.0951	\$ 653,256	\$ 270,774	\$ 0.0394	\$ 382,482	\$ 67,367	\$ 405,342	\$ 855,190	\$ 6,117,899	
9	6,866,081	\$ 0.0975	\$ 669,252	\$ 270,774	\$ 0.0394	\$ 398,478	\$ 69,017	\$ 415,475	\$ 882,970	\$ 7,000,869	
10	6,862,648	\$ 0.0999	\$ 685,641	\$ 270,774	\$ 0.0395	\$ 414,867	\$ 70,707	\$ 425,862	\$ 911,435	\$ 7,912,305	
11	6,859,216	\$ 0.1024	\$ 702,430	\$ 270,774	\$ 0.0395	\$ 431,656	\$ 72,438	\$ 436,509	\$ 940,603	\$ 8,852,908	
12	6,855,787	\$ 0.1050	\$ 719,631	\$ 270,774	\$ 0.0395	\$ 448,857	\$ 74,212	\$ 447,422	\$ 970,490	\$ 9,823,398	
13	6,852,359	\$ 0.1076	\$ 737,253	\$ 270,774	\$ 0.0395	\$ 466,479	\$ 76,029	\$ 458,607	\$ 1,001,115	\$ 10,824,513	
14	6,848,933	\$ 0.1103	\$ 755,306	\$ 270,774	\$ 0.0395	\$ 484,532	\$ 77,891	\$ 470,072	\$ 1,032,496	\$ 11,857,009	
15	6,845,508	\$ 0.1130	\$ 773,802	\$ 270,774	\$ 0.0396	\$ 503,028	\$ 79,798	\$ 481,824	\$ 1,064,650	\$ 12,921,659	
16	6,842,086	\$ 0.1159	\$ 792,750	\$ 270,774	\$ 0.0396	\$ 521,976	\$ 81,752	\$ 493,870	\$ 1,097,598	\$ 14,019,258	
17	6,838,664	\$ 0.1188	\$ 812,163	\$ 270,774	\$ 0.0396	\$ 541,389	\$ 83,754	\$ 506,216	\$ 1,131,360	\$ 15,150,617	
18	6,835,245	\$ 0.1217	\$ 832,051	\$ 270,774	\$ 0.0396	\$ 561,277	\$ 85,805	\$ 518,872	\$ 1,165,954	\$ 16,316,571	
19	6,831,828	\$ 0.1248	\$ 852,426	\$ 270,774	\$ 0.0396	\$ 581,652	\$ 87,906	\$ 531,844	\$ 1,201,402	\$ 17,517,973	
20	6,828,412	\$ 0.1279	\$ 873,299	\$ 270,774	\$ 0.0397	\$ 602,525	\$ 90,059	\$ 545,140	\$ 1,237,724	\$ 18,755,697	
21	6,824,997	\$ 0.1311	\$ 894,684	\$ 270,774	\$ 0.0397	\$ 623,910	\$ 92,264	\$ 558,768	\$ 1,274,943	\$ 20,030,639	
22	6,821,585	\$ 0.1344	\$ 916,593	\$ 270,774	\$ 0.0397	\$ 645,819	\$ 94,524	\$ 572,737	\$ 1,313,080	\$ 21,343,719	
23	6,818,174	\$ 0.1377	\$ 939,038	\$ 270,774	\$ 0.0397	\$ 668,264	\$ 96,838	\$ 587,056	\$ 1,352,158	\$ 22,695,877	
24	6,814,765	\$ 0.1412	\$ 962,033	\$ 270,774	\$ 0.0397	\$ 691,259	\$ 99,210	\$ 601,732	\$ 1,392,200	\$ 24,088,078	
25	6,811,358	\$ 0.1447	\$ 985,590	\$ 270,774	\$ 0.0398	\$ 714,816	\$ 101,639	\$ 616,776	\$ 1,433,231	\$ 25,521,309	
26	6,807,952	\$ 0.1483	\$ 1,009,725	\$ 270,774	\$ 0.0398	\$ 738,951	\$ 104,128	\$ 632,195	\$ 1,475,274	\$ 26,996,582	
27	6,804,548	\$ 0.1520	\$ 1,034,451	\$ 270,774	\$ 0.0398	\$ 763,677	\$ 106,678	\$ 648,000	\$ 1,518,354	\$ 28,514,937	
28	6,801,146	\$ 0.1558	\$ 1,059,782	\$ 270,774	\$ 0.0398	\$ 789,008	\$ 109,290	\$ 664,200	\$ 1,562,498	\$ 30,077,434	
29	6,797,745	\$ 0.1597	\$ 1,085,733	\$ 270,774	\$ 0.0398	\$ 814,959	\$ 111,966	\$ 680,805	\$ 1,607,730	\$ 31,685,164	
30	6,794,346	\$ 0.1637	\$ 1,112,320	\$ 270,774	\$ 0.0399	\$ 841,546	\$ 114,708	\$ 697,825	\$ 1,654,079	\$ 33,339,243	
	205,315,824		\$ 24,015,086	\$ 8,123,220		\$15,891,866	\$ 2,476,556	\$ 14,970,822	\$33,339,243	cksum	
solar panel degradation		0.05%									
WAPA CPI escl		2.50%									
bond amount		\$5,025,000									
bond interest rate		3.50%									
bond term		30 yr									
initial REC price		\$8.25									

If PPA approach is preferable over bond financing, using the EPC guidance costs from Appendix E, it appears for Site 1-A a 30 year PPA rate of \$0.0518/kwhr (initially) would result in a favorable investor IRR (internal rate of return) of 8.29% from a current project cost of \$5,025,000 which should provide a financially viable opportunity for typical investor/lender. The PPA model reduces Needles risk and indebtedness and still provides a significant avoided costs over WAPA/REC/GHG expenses. See model below for assumptions rollout for PPA calculation and estimated project costs (Site 1-A exemplar):



strictly confidential for UnisoI use only and none other

Ground Mount tracking 1X
Pro-Forma Estimates
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ESTIMATE subject to revision
(scalable model)
MW dcp in bundle = 3

Indicative Solar Financial Modeling

Project Name: **Needles I**
Project Location: **Needles, CA**
Start Year Construction Commissioning Year

Project Assumptions

Plate Capacity (MWac):	2,500
DC-AC derate	1.20
Total Capacity (MWdc)	83.33%
Annual Production Yr 1 MWhr	3.00
Yield kWh/yr/kwdc	6,894
	bifacial 2,298

Cash Flow Assumptions

Revenues	1st Full year	Monthly \$29,757.81	\$357,094
Effective Price per kWh*	30 year lease/PPA		\$0.0518
PPA escalation rate			1.50%

Expenses

O&M (annual)	\$35,000	
Insurance w/ deers	5%	\$7,395
Utility maint fee SCE	0.0%	\$0
Land Lease (plus RE tax)	\$9	
Increases by inflation-begin in year...	tot ann exp init	\$42,404
	CFADS - 1st year	2
		\$314,690
Annual Expenses Escalation (%)		1.75%

Financing Assumptions

Debt	none at this time
Debt	
% Financed with debt (LTV)	0.0%
Debt interest rate	4.75%
Debt term (yrs)	20
Annual debt payment	\$0
DSCR avg =	#DIV/0!
Equity	
Sponsor Equity (sweat equity, incl tax eqy, jr debt & TTC)	\$5,025,000
% equity provided	100%
Discount Rate	5.00%

Incentives and Tax Assumptions (if monetized)

Incentives	income approach: TTC + 8 yrs ebtidax1, 32/30%	\$957,363
Federal ITC (30%) pre-approved 1603	85%	\$1,281,375
% of project costs depreciable with ITC (less 15%)	85%	\$4,271,250
Taxes		
Tax rate	20%	8.85%
		28.9%

DEPRECIATION (std. no bonus assumed, ITC basis)

1	20.00%	854,250
2	32.00%	1,366,800
3	19.20%	820,080
4	11.50%	491,194
5	11.50%	491,194
6	5.80%	247,733
	100.00%	4,271,250

CAPEX

EPC turnkey	1,450	\$4,350,000
misc/instrn civil, mtg)	0	\$0
Dcp, commission include	0.2250	\$675,000
unallocated reserve	\$0	\$0
Total project costs		\$5,025,000
Cost per watt	2.010	
Construction period max (months)	10	

Operating Expenses

General		
Land tax	rate%	0.00%
Lease Rate/ac yr/typ		\$0 by city
Insur rate per MW w/ incm rider		\$1 by city
Average of Site (ac per MW)	.17 per \$100	\$0.17
O&M/maint/opr asset mgmt/MW/yr	3	9.00 ac per segment
Panel Derate/yr		\$11,667 per mw dc
		0.500%

Needles, CA

off-taker **Needles, CA** ownership flip 30yr
owner **SPV: Needles I**
interconnection agrmt thd - ITC to Needles post
Permits - City will expedite
time to shovel-ready - approx 1 month overall COD 2025
site control by Developer
EPC quoted but no selection yet
major technology selected
engineering single lines compl
engineering field layout compl

After-Tax IRR 30 yr

EPC stackup 2024 (taxes incl)	0.275
panels 412W	0.325
Invert/str-batt read	0.450
BOS	0.350
mtg/track/etc	0.050
other	1.450

*TTC subject to Treasury/IRS AUP analysis/review
project valuation w/ depr/ITC/SCGP: **\$5,025,000**
total CFBT **\$10,739,024**
*using MACRS depreciation although new tax law allows 100% in year 1-we use 6 years here
Disclaimer: the figures cited herein are for discussion purposes only on a probna basis. UnisoI is not responsible for accuracy or veracity of stated figures.
The reviewer is responsible for verifying and calculating their own financial modeling and drawing their own conclusions.

Appendix D

Needles Solar Site Data Analysis Chart

The following 10 projects have been evaluated and assigned a feasibility rating (from 1 to 10) based on optimal cost, infrastructure development and effective resultant PPA rate:

City of Needles Potential Solar Sites Analysis																		
Item	description	land site	location: lat-long	flood plain issues	estim land studies	IP dist	est IP Cost	est site prep cost	site capacity	solar design size DC	plate size AC	project ownership	dep & tax credits?	Total estim project cost	financing	net effective PPA rate cost incl infrastructure	Feasibility issues?	Comparative Desirability Rating - 0-10 (10 best)
1-a	old treatment plant	10 ac	34.82820 N -114.59794 W		-0-	.04 mi	-0-	-0-	4.5MW	3	2.499	3rd party PPA with ownership flip	yes	\$ 5,025,000	PPA	0.0518	good - flat-repurposed	7.02
1-b	old treatment plant	10 ac	34.82820 N -114.59794 W		-0-	.04 mi	-0-	-0-	4.5MW	3	2.499	City Utility	yes	\$ 5,025,001	city bond	0.03836	good - flat-repurposed	10.00
2	landfill near airport	120 ac	34.79494 N -114.61343 W		-0-	2 mi	\$2M	\$100k	30 MW	3	2.499	City Utility	no	\$ 7,125,000	city bond	0.04877	City-no tax credits or depr	7.46
3	PPA offer by airport Hwy 95	25 ac	34.76761 N -114.60018 W		\$25k	4 mi	\$4M	n/a	12MW	8	6.664	3rd party PPA with ownership flip	yes	\$ 9,050,000	PPA	0.0882	need prod schd & profile & PPA details - interconnect issue - FAA glare restriction	4.12
4	west side	35 ac	34.84189 N -114.62461 W	yes	\$25k	1 mi	\$1M	\$2M	15MW	3	2.499	City Utility	no	\$ 8,050,000	city bond	0.05423	questionable - flood & prep - no tax credits or depr	6.71
5	west side	23 ac	34.83342 N -114.62757 W	yes	\$25k	1 mi	\$1M	\$2M	12MW	3	2.499	City Utility	no	\$ 8,050,000	city bond	0.05422	questionable - flood & prep - no tax credits or depr	6.71
6	SW corner off residential	25 ac	34.82703 N -114.62482 W		\$35k	2 mi	\$1M	\$100k	15MW	3	2.499	City Utility	no	\$ 5,660,000	city bond	0.04307	residential zoning - no tax credits or depr	8.44
7	switch station	2-3 ac	34.8569 N -114.62501 W		-0-	on site	\$50k	-0-	500kw	0.5	0.4165	City Utility	no	\$ 887,500	city bond	0.06575	usability-part BLM - small - tax credits or depr	5.33
8	near new trmt plant	4ac	34.8286 N -114.59795 W		\$17k	at road	\$150k	\$100k	2mw	2	1.666	City Utility	no	\$ 3,617,000	city bond	0.1015	very rough-small - no tax credits or depr	3.58
9	old ice plant by RR	50 ac	34.82687 N -114.59047 W		\$17k	up the hill	\$375k	\$100k	1MW	1	0.833	City Utility	no	\$ 2,167,000	city bond	0.05612	rough-tree strippling - small - no tax credits or depr	6.48
10	Bureau Declam land	14 ac	34.83512 N -114.59254 W		\$17k	across road	\$150k	\$100k	5mw	3	2.499	City Utility	no	\$ 5,292,000	city bond	0.03794	need lease or purchase - no tax credits or depr	9.38

Appendix E

Base-line Assumptions

1. O&M scope elements required

For the solar installations, these ongoing elements are required for Operations & Maintenance (O&M) and have been budgeted in the various Sites analysis as initially \$11,667 per MW dc:

- a. SCADA Monitoring
 - b. Reporting annual performance
 - c. Ongoing Maintenance as needed
 - d. Repair service calls
 - e. Cleaning
 - f. Replacement inverters as needed
 - g. Replacement solar panels as needed
- 2. EPC current benchmark (design-build turnkey array)**
- a. \$1.45+/- per watt dc installed
- 3. Investor Owned Considerations**
- a. Internal Rate of Return at 8.3%,
 - b. ITC and depreciation applicable,
 - c. no debt, 100% equity contribution
 - d. tax base fed 20%, state 8.85%,
 - e. favorable lease rate on municipal property at \$1/ac/yr
- 4. Municipal Owned considerations**
- a. -0- % return (breakeven)
 - b. 3.5% municipal bond financing, 100% debt from bond
 - c. no ITC and no depreciation applicable,
 - d. no tax consequences,
 - e. site control no cost
- 5. PPA considerations**
- a. 30 year, 1.5% escalation. PPA calculated for each site
 - b. 1.75% labor increase annually
 - c. CapEx calculated for each site
- 6. Solar Insurance**
- a. decreasing term, \$0.17/\$100 on capex depreciable amount
 - b. 1.75% insurance rate increase annually
- 7. Project Development costs**
- a. Industry standard average at \$0.225/watt

Appendix F Arborvitae Enterprises LLC

In the 50+ years since the Barksdale family engaged in the solar silicon cell business, we've seen unimaginable changes and major breakthroughs in technologies and roll-outs – both in our company and in the renewable energy sector. We are excited to share more of the great projects we have completed in recent years. These projects will continue to prove our dedication to high quality and customer service.

From computerized electronic monitoring and power management systems to complex charge controllers, battery storage and conventional generation integration, we are doing more interesting and challenging projects every day.

We continue to add to our highly skilled workforce to handle the growing demand for our solar solutions and we continue to train and educate our team which is improving our ability to deliver ever larger and more complex projects on-time and on-budget. We remain committed to excellence in customer service --whether it's helping you process a CUP or rebate or going the extra mile to find that perfect solution for your unique site and energy complement of design-build storage, substation, transmission, distribution, interconnection, O&M, SCADA or operations management requirements.

Our team members are each and every one committed to social and environmental responsibility in everything we do from working with educational organizations, ecological foundations, deserving charities and to promoting volunteerism among our employees, we will leave our planet earth a better place than we found it.

Further we endeavor to support our commitment to serve our customers in the ways we always have, with honesty and integrity. We look forward to addressing your needs and exceeding your expectations.

Roof/Canopy/Ground Mount

- Residential
- Commercial
- Industrial
- Agricultural
- Military / State / Federal
- Charging Stations
- Solar Heating
- LEED® Silver Certification

All From One Source

- Turn-Key Solutions (w/ financing)
- On-Site Assessments
- Custom Installations
- System Monitoring & Control
- Green Initiative Compliant

Project Development and Management

Consulting, design and implementation of environmentally responsible renewable energy, distributed generation and energy efficient projects for electric utility producers of all types and sizes.

(Photo courtesy of Solar Tech, Inc.)

Appendix G

Resume of Key Staff

CHIEF EXECUTIVE OFFICER

UniSol Solar & Storage

Arlen Barksdale, Ph.D.

CSLB C-46 Solar license #1119501



Dr. Barksdale, of Cherokee extraction, from 1975 to the present he is the President and CEO of Hytec Engineering & Design, a firm specializing in solar engineering design, telecommunications data transmission, technical publications and printing, and customer computer application development.

Additionally he is CEO/CTO of UniSol Solar, LLC (*a unified solar-storage systems development company*). Dr. Barksdale is solidly experienced in the silicon industry since 1973 with his debut with Texas Instruments. He has been instrumental in the rollout of 2GW+ silicon-based solar/storage projects and counting. He has held numerous executive level positions in high technology companies. Chairman-emeritus of the Green Government Commission of Lake City/Hinsdale County, Colorado, he is also the primary strategist and project developer for commercial as well as utility scale solar projects since 2004. Dr. Barksdale is a senior Computer Science and Engineering mentor at the Jacobs School of Engineering of UCSD in California. In 2002-03 Dr. Barksdale as Chief Technology Officer headed up the Technology Divisions of two start-up high tech companies – All Optical Networks and Interphotonics, Inc. – both in the optical telecommunications field.

An avid inventor, he is the owner of the Solar Collector Core Technology (patent pending), the Programmable Photonic Integrated Circuit (patent pending), an Adjustable Single Axis Solar Tracker (patent pending), Thermoelectrically Cooled 65GHz LNA (patent pending), and the Business-card-size CD (patent issued). He has over 50 years experience in electronic and silicon semiconductor technology development-to-manufacturing. Prior to 1991, Dr. Barksdale held positions within the academic community, including National University's Computer Science and Engineering department, where he variously held the positions of Dean, Department Chair and Professor, and at Rice University where he was a research fellow working with X-Band microwave studies of II-VI and III-V semiconductors at cryogenic temperatures. From 1973 to 1977, he served as Director of Operations for Texas Instruments' Calculator and computer products, PCB assembly, CMOS, and silicon material divisions. At TI, Dr. Barksdale received significant recognition for his groundbreaking work in advanced silicon growth manufacturing technology pioneered for the RAM products which launched the present day personal computer industry.

A veteran of the United States Air Force during the Vietnam era, he was a member of the Intelligence Corps (Russian language translator, cryptographic and electronics). Dr. Barksdale is a National Science Foundation fellow, Welch Foundation fellow, and Atomic Energy Commission special fellow in Nuclear Science & Engineering. Dr. Barksdale holds a Ph.D. and M.A. in Solid State Physics from Rice University, a B.S. Physics/Math/Chemistry from the University of Texas, and A.A. Biology/Math from Weatherford College. He also has conducted Postdoctoral research at the M.D. Anderson Cancer Research Institute in Houston.

Appendix G
Certification

Pursuant to your request, I hereby submit this solar electric generation feasibility study report in its entirety as to form and content and attest to the best efforts to provide a true and comprehensive technical analysis of the subject matter herein. Results accuracy is expected to be +/-5%. Calculations based on premises of current financial and commodities markets and are subject to as-built drawings and City plan review of permits.

Dated this the 12th day of August, 2024.

Attest,



Arlen Barksdale, PhD

Chief technology Officer
Physicist and Engineer

UniSol Solar & Storage

CSLB C-46 Solar license #1119501
a division of Arborvitae Enterprises LLC
in cooperation with
UCSD Jacobs School of Engineering



Arborvitae Enterprises LLC
1968 Circle Park Lane
Encinitas, CA 92024

Arlen Barksdale, Ph.D.
CSLB C-46 Solar #1119501
760.533.8714
drarlenb@gmail.com



City of Needles, California Request for Commission Action

CITY COUNCIL BOARD OF PUBLIC UTILITIES Regular Special

Meeting Date: October 1, 2024

Title: EUSI, LLC operational support services relating to the wastewater treatment facility and collection system August 2024

Background: See attached report

Fiscal Impact:

Environmental Impact:

Recommended Action: No action needed - information only

Submitted By: Kris Hendricks, EUSI LLC

City Manager Approval: Rainie Torrance for Patrick Martinez Date: 9/25/24

Other Department Approval (when required): _____ Date: _____

Approved: <input type="checkbox"/>	Not Approved: <input type="checkbox"/>	Tabled: <input type="checkbox"/>	Other: <input type="checkbox"/>
			Agenda Item: _____

**EUSI, LLC Operational Support Services Relating
To the
Wastewater Treatment Facility and Collection System
August 2024**

Mrs. Rainie Torrance,

Please find below a summary of our services provided associated with the operational support services for the wastewater treatment facilities for the month of August 2024.

- The daily average flow for the month of August 2024 was 0.487 MGD.
- Completed the July monthly 2024 monitoring report for the state.
- Conducted in-house process control testing for the SBRs.
- Sent out the weekly and monthly samples as required by the monitoring permit.
- Tested the plant lift station and plant alarm callouts.
- Administrative coordination with finance and the administrative staff at 3rd street is ongoing.
- Inspected facility perimeter fences and percolation ponds.
- Decanted digester to maximize capacity for wasting, as well as to maximize the space in the drying beds.
- Operations staff ripped percolation pond #3 and switched from percolation pond #2 to pond #3.
- Cleared drying beds 4, 6, 8, 9, 10, 11, 12, 13, 16, 18, 20, and 21.
- Roll off container with dried biosolids was filled and prepared for pickup and disposal at the sanitary landfill.
- Drained digester to drying beds 2, 4, 6, 8, 9, 10, 12, 13, 16, 18, 19, 20, 22.
- Completed routine monthly inspection of the Kubota tractor, the 4" trash pump, and the jetter.
- Preventive Maintenance Program is ongoing per operating hours of the various plant components.
- Completed the bar screen service and inspections throughout the month.
- Completed weekly inspection of the emergency generator prior to and during its weekly test runs.
- Ongoing communication with City staff regarding items associated with the overall wastewater system.
- Operations staff installed sludge pump in the digester and completed a confined space entry for inspection and general cleaning of the digester.

Supplemental repair services, exceptional event(s) during the month of June.

- August 2, 2024 installed a new backflow device for the operations office/shop. No charge for this activity.
- August 6, 2024 conducted confined space entry in SBR #2 to remove rags and check the decanter valves. Staff replaced one duck bill and one of the decanter valves as the spring retainer pin broke. Staff also measured for replacement valve extension rod as it corroded and broken in a couple of places. Staff anticipates installing new rod in September. No charge.
- August 14, 2024 Extreme Iron was on site to assist operations staff with the installation of the new motive pump guide rail bracket for SBR #2. Staff is planning to install the bracket in SBR #1 late August/early September. If the bracket cannot be installed with SBR #1 in service this work may be done in the spring when we perform the routine service and maintenance on SBR #1. No charge for these activities. See attached photos of this work effort.
- August 23, 2024 operations and wastewater staff cleaned and inspected the digester and repaired several of the diffusers. Some other diffusers require some attention will be needed and require another entry to address those issues. No charge for this maintenance activity. See attached photos of the work effort.

Should you have any questions regarding the monthly activity please feel free to contact me at 602-300-7946.

Sincerely,

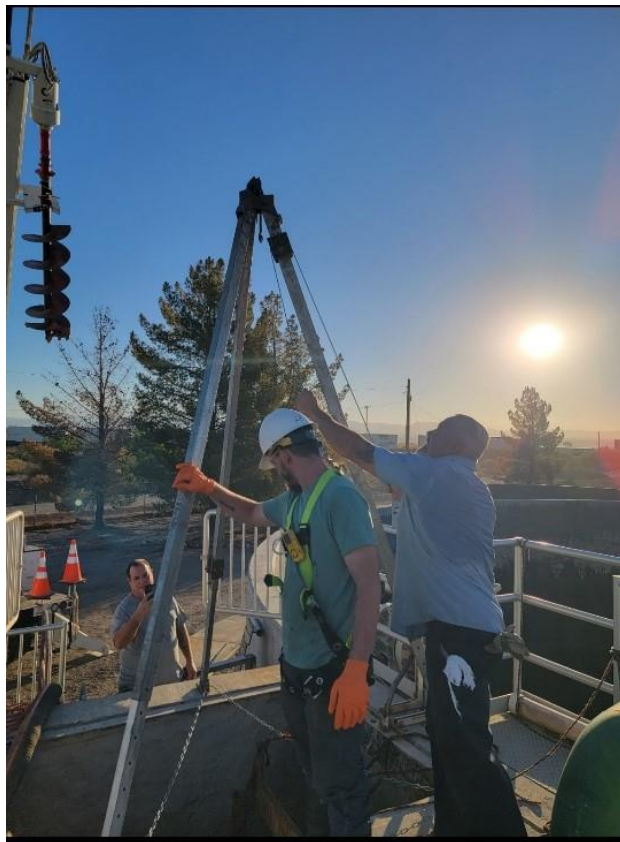


Kris Hendricks, EUSI, LLC; Managing Member

Digester cleaning before and after



Motive pump guide rail bracket installation





CITY OF NEEDLES, CALIFORNIA STAFF REPORT

MEETING TYPE: Regular

MEETING DATE: October 1, 2024

TITLE: Present Perfected Rights Report – August 2024

BACKGROUND:

CURRENT YEAR:
August 2024

	Current	YTD	% change prior year to current year YTD
Net Diversion	231.69	1,320.89	6%
Measured Returns	44.94	332.16	
Unmeasured Returns	36.49	192.45	
Consumptive Use	150.26	796.28	(based on consumptive use)

PRIOR YEAR:
August 2023

			% of PPR Remaining
Net Diversion	194.49	1,283.06	48%
Measured Returns	44.85	314.53	
Unmeasured Returns	14.66	219.06	
Consumptive Use	134.98	749.47	

*Based on CY23 Water
Order of 2,528 diversion

PPR Limits 1,223 1,223
 SCIA Agreement (145) - 145
 PPR Entitlement 1,078

LCWSP SCIA Limit + 527
 2023 Consumption 1,605
 2023 Diversion 2,261

FISCAL IMPACT:

**ENVIRONMENTAL
IMPACT:**

RECOMMENDED ACTION: Information Only
 Rainie Torrance, Utility Manager

SUBMITTED BY:

City Manager Approval: Rainie Torrance for Patrick Martinez Date: 9/25/24

Other Department Approval (when required): _____ Date: _____

CITY OF NEEDLES
 WATER ACCOUNTING
 MONTHLY CALCULATION SHEET
 CALENDAR YEAR 2024

Diversions - Pumped from Wells	Pumped (Acre-Feet)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well #8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Well # 15 (formerly #10)	89.95	70.21	103.04	113.54	132.90	153.86	168.50	166.20					998.20
Well #11	0.00	0.00	0.09	0.00	0.07	0.00	0.00	0.00					0.16
Well #12	10.74	6.78	13.56	51.77	56.20	77.87	69.79	66.42					353.13
Sub-Total	100.69	76.99	116.69	165.31	189.17	231.73	238.29	232.62	0.00	0.00	0.00	0.00	1,351.49
Delivered to Ft. Mojave Indian Tribe (AZ)	2.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00					2.78
Delivered to Ft. Mojave Indian Tribe (CA)	0.00	8.30	1.79	1.90	6.20	5.07	3.63	0.93					27.82
Sub-Total	2.78	8.30	1.79	1.90	6.20	5.07	3.63	0.93	0.00	0.00	0.00	0.00	30.60
City of Needles' Net Diversion	97.91	68.69	114.90	163.41	182.97	226.66	234.66	231.69	0.00	0.00	0.00	0.00	1,320.89
Uses of Water													
Commercial Accounts	45.45	32.92	50.17	53.28	60.59	64.62	78.80	67.72					453.55
Residential Accounts	36.34	27.32	46.60	52.64	57.40	71.00	69.00	82.25					442.55
Golf Course	10.74	6.78	13.56	51.77	56.20	77.87	69.79	66.42					353.13
Parks, Ballparks, Cemetery	5.37	1.67	4.48	5.72	8.77	13.18	17.06	15.30					71.55
Total	97.90	68.69	114.81	163.41	182.96	226.67	234.65	231.69	0.00	0.00	0.00	0.00	1,320.78

**CALENDAR YEAR 2024
WASTEWATER TREATMENT PLANT**

	Mean Flow	# Days	A/F	A/F Return
Jan	0.481	31	45.76	44.39
Feb	0.421	29	37.47	36.35
Mar	0.429	31	40.82	39.59
Apr	0.436	30	40.14	38.94
May	0.425	31	40.44	39.22
Jun	0.482	30	44.38	43.05
Jul	0.495	31	47.10	45.68
Aug	0.487	31	46.33	44.94
Sep		30	0.00	0.00
Oct		31	0.00	0.00
Nov		30	0.00	0.00
Dec		31	0.00	0.00
TOTAL	3.656	366	342.44	332.16

Daily mean flow x #days mo X 1,000,000 = gal/mo
divided by 7.48 divided by 43560 = A/F mo

**CITY OF NEEDLES
WATER ACCOUNTING
MONTHLY CALCULATION SHEET
CALENDAR YEAR 2024**

Diversion													
	Pumped (Acre-Feet)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pumped from Wells													
Well #8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Well # 15 (FKA #10)	89.95	70.21	103.04	113.54	132.90	153.86	168.50	166.20	0.00	0.00	0.00	0.00	998.20
Well #11	0.00	0.00	0.09	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Well #12	10.74	6.78	13.56	51.77	56.20	77.87	69.79	66.42	0.00	0.00	0.00	0.00	353.13
Sub-Total	100.69	76.99	116.69	165.31	189.17	231.73	238.29	232.62	0.00	0.00	0.00	0.00	1,351.49
Delivered to Ft. Mojave Indian Tribe (AZ)	2.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78
Delivered to Ft. Mojave Indian Tribe (CA)	0.00	8.30	1.79	1.90	6.20	5.07	3.63	0.93	0.00	0.00	0.00	0.00	27.82
Sub-Total	2.78	8.30	1.79	1.90	6.20	5.07	3.63	0.93	0.00	0.00	0.00	0.00	30.60
City of Needles' Net Diversion	97.91	68.69	114.90	163.41	182.97	226.66	234.66	231.69	0.00	0.00	0.00	0.00	1,320.89

Return and Other Credits													
Measured Returns													
Sewer Plant's Rapid Infiltration Ponds ¹	44.39	36.35	39.59	38.94	39.22	43.05	45.68	44.94	0.00	0.00	0.00	0.00	332.16
Unmeasured Returns													
Percolation from Golf Course ²	0.00	0.00	0.00	30.79	11.66	28.12	24.29	24.26	0.00	0.00	0.00	0.00	119.11
Percolation from Parks ³	2.15	0.67	1.79	2.29	3.51	5.27	6.82	6.12	0.00	0.00	0.00	0.00	28.62
Percolation from Large Commercial Users ⁴	1.09	0.79	1.20	1.28	1.45	1.55	1.89	1.63	0.00	0.00	0.00	0.00	10.89
System Losses ⁵	0.01	0.00	0.09	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.12
Septic Tank Returns ⁶	4.12	3.84	4.41	4.22	4.12	3.96	4.54	4.48	0.00	0.00	0.00	0.00	33.71
Total Unmeasured Returns	7.37	5.30	7.50	38.57	20.75	38.91	37.56	36.49	0.00	0.00	0.00	0.00	192.45
Total Returns	51.76	41.65	47.09	77.51	59.97	81.96	83.24	81.43	0.00	0.00	0.00	0.00	524.61

Footnotes:
1/Calculated as WWTP Total Discharge*0.97.
2/Calculated as Monthly Delivery to Golf Course*Efficiency-Monthly ET. Efficiency =0.9
3/Calculated as Delivery to Parks,Ballparks,Cemetery*0.40.
4/Calculated as 24% of Deliveries to Commercial Accounts*0.10.
5/Calculated as City of Needles' Net Diversion*-Total Uses.
6/Total Annual UMR from septic tanks = 50; assumes 210 septic units*0.6 AF/yr*0.40 (where 0.40 = UMR Factor). Annual volume is distributed monthly using a monthly distribution factor.

Consumptive Use													
Diversion	97.91	68.69	114.90	163.41	182.97	226.66	234.66	231.69	0.00	0.00	0.00	0.00	1,320.89
Measured Returns	44.39	36.35	39.59	38.94	39.22	43.05	45.68	44.94	0.00	0.00	0.00	0.00	332.16
Unmeasured Returns	7.37	5.30	7.50	38.57	20.75	38.91	37.56	36.49	0.00	0.00	0.00	0.00	192.45
Consumptive Use	46.15	27.04	67.81	85.90	123.00	144.70	151.42	150.26	0.00	0.00	0.00	0.00	796.28

Item 8.



City of Needles

817 Third Street, Needles, California 92363
(760) 326-2113 • FAX (760) 326-6765
www.cityofneedles.com

Mayor, Janet Jernigan
Vice Mayor Kirsten Merritt
Councilmember Tona Belt
Councilmember Ellen Campbell
Councilmember Jamie McCorkle
Councilmember JoAnne Pogue
Councilmember Henry Longbrake

City Manager Patrick J. Martinez

MEMORANDUM

TO: HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

FROM: PATRICK J. MARTINEZ, CITY MANAGER

SUBJECT: WEEKLY MEMORANDUM

DATE: September 13, 2024

1. The City of Needles invites the community to a groundbreaking ceremony for **Phase IV-A Street Improvements** under the Citywide Pavement Management Program. The event will be held on **Thursday, September 19, 2024, at 9:00 AM** at the intersection of Cibola Street and Palm Way. This **\$1.3 million Phase IV-A Street Improvement Project**, funded by Cannabis tax revenue, aligns with the City Council's goals of revitalizing street and water infrastructure. Construction on Desnok Street, Cibola Street, and surrounding roads will begin on September 23 and be completed by the end of October. A second groundbreaking is planned for the **Obernolte Street Improvement Project** in **late September**. The **\$971,988 project** will be funded by the 2022 Community Project Funding/Congressionally Directed Spending program and general funds. It will repave several streets, including 4th St., 5th St., and Collins St.

Additionally, on **Tuesday, September 10, 2024**, the City Council approved the **\$407,708 Phase IV-B Water Service Lateral Replacement Project** in preparation for **Phase IV-B Street Improvement Project**. Construction on Carty Way, Carty Circle, and other streets is expected to begin in **January 2025**. **Refer to the attached maps for a detailed overview for proposed Street Improvement Projects**. For more information, contact City Manager Patrick Martinez at 760-326-2115 ext. 113 or pmartinez@cityofneedles.com.

2. The City of Needles Recreation Center, in partnership with The Needles Women's Club, is excited to host the **15th Annual Lynne's Little Ladies Tea Party on Saturday, September 21, 2024, from 1:00 to 3:00 PM** at the Needles Women's Club. This special event is open to the first 40 girls, ages 5-12, from the tri-state area who register and pay the \$25 fee. Registration can be completed at The Needles Recreation Center, with all fees due by **Wednesday, September 18, 2024**.

For more information, **refer to the attached flyer** or contact the recreation center at 760-326-2814. Sponsorship opportunities are also available to support a little lady's participation—please reach out to the recreation center directly for details.

3. The City of Needles has secured nearly **\$5 million in grant funding**—a monumental achievement! This success is a testament to the hard work and collaboration between our city administration, California Consulting, and our dedicated staff. Together, we've laid the foundation for a brighter future, focused on enhancing the well-being of our residents and driving sustainable growth.

These grants showcase what's possible through bold vision, strategic planning, and strong partnerships. Congratulations to everyone involved! Get ready, Needles—exciting projects are on the horizon, and we can't wait to see their positive impact on our community! Stay tuned for more updates! **Refer to the [attached newsletter](#) from California Consulting for additional information.**

4. The Animal Shelter City Staff is excited to announce the upcoming Spay/Neuter Clinic events on **September 26 and 27, 2024**. Be sure to RSVP your spot today before both clinics are fully booked! These sessions will be led by Dr. Angelina Beeks of Angel's Touch Mobile Veterinary Unit, a trusted partner since April 2022. Our bi-annual spay/neuter clinics are a vital part of our mission to promote animal welfare and responsible pet ownership in our community. Don't miss out on this significant opportunity! **Refer to the attached flyer** for further or call the Needles Animal Shelter today at (760) 326-4952 for pricing.
5. City officials and staff gathered at the **Needles Elks Lodge #1608 for the Patriot Day Remembrance Ceremony**, commemorating the lives lost during the tragic events of September 11, 2001. The ceremony honored the bravery and sacrifices of firefighters, rescue teams, law enforcement, military personnel, and countless civilians. In the wake of that day, these acts of heroism inspired our nation to unite, refocus, and draw strength. **Refer to the attached images** for a look into the solemn and heartfelt ceremony.
6. On **Thursday, September 12, 2024**, city officials and staff attended a meet-and-greet with Palo Verde Community College District Superintendent/President Dr. Bruce Moses. During the event, Dr. Moses outlined his strategic vision for strengthening the integration of Palo Verde College within the Needles community, with a particular emphasis on enhancing the college's role in fostering regional economic development. Additionally, it was noted that Needles High School maintains a 100% graduation rate, with 49% of graduates pursuing higher education and 36% enrolling in California Community Colleges. The school's administration is committed to increasing awareness of financial aid opportunities through FAFSA, ensuring students have the necessary resources to pursue post-secondary education. Over the next two years, Dr. Moses plans to establish an anchor program aimed at defining and branding the Palo Verde College Needles Center. **Refer to the attached images for highlights from the event.**

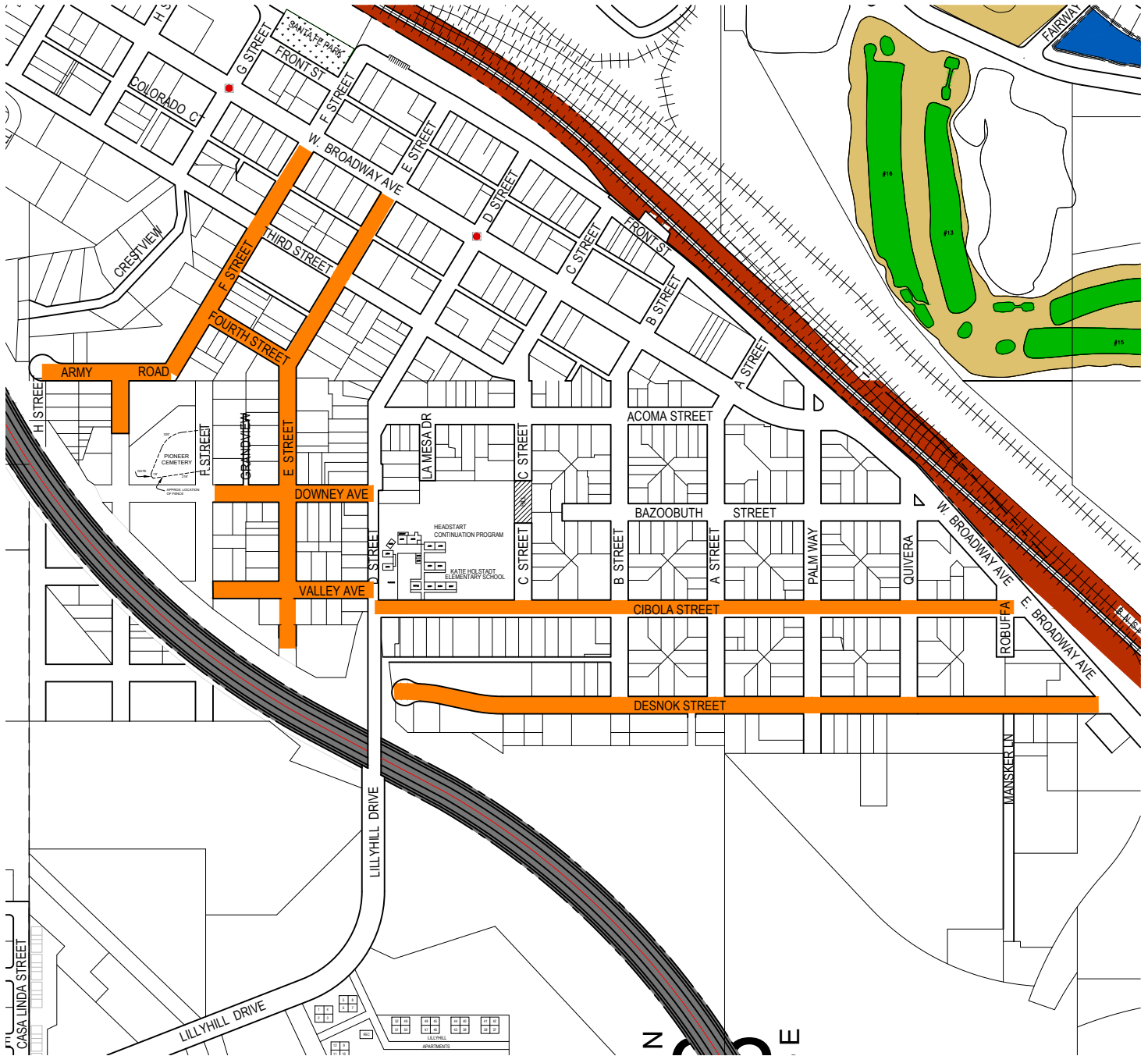
7. The city is committed to providing ongoing professional development opportunities for our staff, and we are excited to congratulate Cainin Perritt on earning his Commercial Driver's License (CDL). This is a notable accomplishment, as Cainin is the first member of our crew to complete the rigorous 80-hour training and pass the exam, but not the last. His success adds tremendous value to our team, increasing our capacity to serve the community, particularly through enhanced street-sweeping services. Additionally, the city remains focused on equipping our staff with the necessary tools to improve the quality of life for our residents. With budget approval, we have begun replacing outdated equipment, and we are proud to announce the arrival of two key replacements this week. First, our 500-gallon vacuum tank, which the water department uses to address water leaks, has been replaced after more than 15 years of service. This new tank will improve our efficiency in maintaining the city's water systems. Second, the Needles Riverview Cemetery has received a replacement mower, a much-needed upgrade. These equipment upgrades are part of our ongoing efforts to ensure our team can perform their duties effectively, benefitting the entire community. **See the attached image for reference.**
8. The City of Needles is nearing completion of the **\$747,061 Rivers Edge Golf Course Irrigation Efficiency Project**, funded by the Urban and Multibenefit Drought Relief Program. This project, featuring water-efficient sprinkler heads and an advanced irrigation system with water-saving gate valves, will enhance the course's sustainability and appearance. To support these improvements, a \$3 fee increase will take effect when the course reopens on **October 4, 2024**. This measure ensures the course remains well-maintained and supports future upgrades, providing an exceptional experience for all golfers. Book your tee time today by calling 760-326-3931 or visiting our [website](#). For tournament inquiries, contact JJ DeLeon at the same number. **Additional details are in the attached flyer and photo.**
9. IMPORTANT UPCOMING DATES:
- **The Needles Chamber of Commerce State of the City on October 3, 2024, from 6:00 p.m. to 8:00 p.m.** located at 950 Front Street (El Garces).
 - **Annual Bridge to Bridge First Responders Appreciation Day on Saturday, October 12, 2024, from 11 am-2 pm** at the Mohave Valley Legacy Community Park at 9200 Aquarius, Mohave Valley.
 - **Ribbon Cutting Ceremony: The Well No. 11 Water Treatment Facility Project is anticipated for mid-October.** The date, time, and location are TBD.
 - **SBCSD/Needles Police 5th Annual Trunk or Treat Event on Wednesday, October 30, 2024, from 4:00 PM to 6:00 PM** at the Recreation Center parking lot at 1705 J Street. If you're interested in participating, please get in touch with Misty Hunt at 760-526-9200 or mhunt@sbcscd.org.
 - **Community Fall Festival: November 2, 2024, from 9:00 AM to 2:00 PM** at 950 Front Street. To participate vendors can contact Jennifer Valenzuela, Recreation Manager, via email at jvalenzuela@cityofneedles.com or directly at 760-326-2814.

1. PAVEMENT GROUNDBREAKING

City of Needles Capital Projects

Street Improvements & Water Service Replacement

PHASE 4 A



DOWNTOWN AREA

- DESNOK STREET (D Street to W. Broadway Ave)
- CIBOLA STREET (D Street to W. Broadway Ave)
- F STREET / ARMY RD (Broadway Ave to Interstate 40)
- E STREET (Broadway Ave to Interstate 40)
- DOWNEY AVE (D Street to F Street)
- VALLEY AVE (D Street to F Street)
- FOURTH STREET (F Street to E Street)
- G STREET (@ Army Rd)

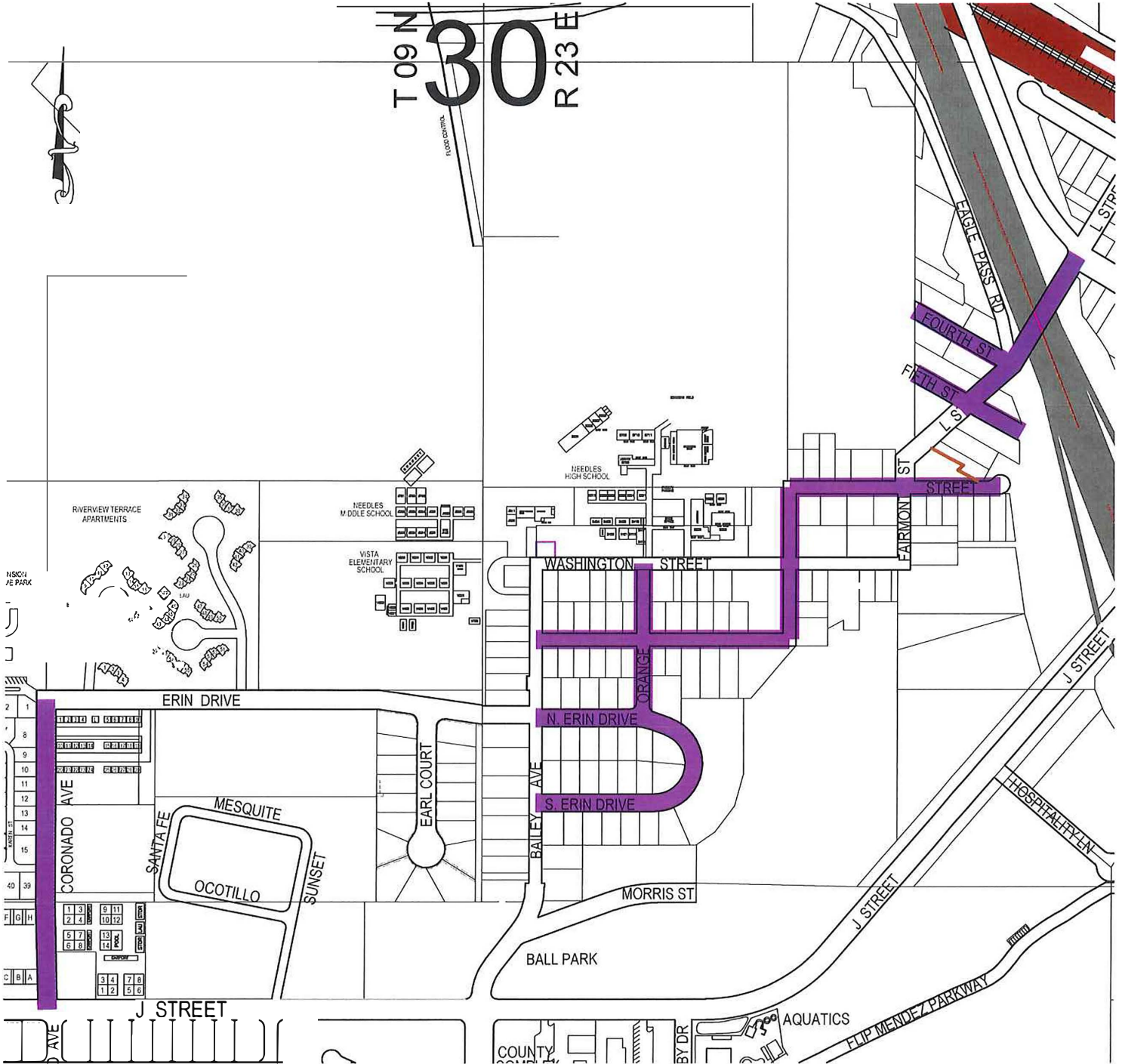
LEGEND

PHASE 4A - PAVING IMPROVEMENTS including Water Services

Item 9.

1. PAVEMENT GROUNDBREAKING

City of Needles Capital Projects Street Improvements & Water Service Replacement OBERNOLTE STREET PROJECT



HIGH SCHOOL HILL

- L STREET (5th Street to W. Broadway Ave)
- 4TH STREET (L Street to End)
- 5TH STREET (L Street to End)
- HIGHLAND STREET (Park Ave to End)
- PARK AVE (Highland Street to Collins Street)
- ORANGE AVE ((Bailey Ave to Park Ave)
- COLLINS STREET (Bailey Ave - The Loop)
- ERIN DRIVE (Bailey Ave - The Loop)
- CORONADO STREET (Erin Dr to J Street)

LEGEND

Obermolte Water Service Replacements & Street Improvements Project - Awarded by Rep. OBERNOLTE

Item 9.

1. PAVEMENT PHASE IV-B

City of Needles Capital Projects

Street Improvements & Water Service Replacement

PHASE 4B



VISTA AREA

- ELMONTE STREET (Parkway to Coronado St)
- CARTAY WAY (El Monte to Coronado St),
- CARTAY CIRCLE,
- CARTAY PLACE
- DESOTO ST (Parkway to Balboa St)



DOWNTOWN AREA

- I STREET (Third Street to Broadway Ave)
- H STREET (Third Street to Broadway Ave)
- G STREET (Third Street to Broadway Ave)
- CRESTVIEW (Third Street to End)

LEGEND

 PHASE 4B - PAVING IMPROV
Including Water Services

Item 9.

2. NEEDLES WOMEN'S CLUB

15th Annual
Lynne's Little Ladies Tea Party

LETS PAR-TEA

Saturday, September 21st, 2024
1:00PM - 3:00PM
Needles Women's Club

Contact: 760-326-2814



3. GRANT AWARD SUCCESS



City of Needles Achieves Remarkable Success in Grant Awards!



The City of Needles has recently secured an impressive \$4,791,850.72 in grant funding, a significant milestone that reflects the city's ongoing commitment to growth, sustainability, and community well-being. Thanks to the tireless efforts of city administration and the expert guidance of California Consulting, several transformative grants have been awarded to support the city's future:

- 1. Statewide Park Development and Community Revitalization Program**
The City of Needles has been awarded \$3,965,400.00 by the California Department of Parks and Recreation. This competitive program is focused on creating new parks and recreational opportunities in underserved communities. For Needles, this grant will be a game-changer, providing much-needed green spaces and recreational facilities to enhance residents' quality of life and foster community engagement.
- 2. CalTrans Sustainable Planning Transportation Grant Program**
Needles also secured \$203,987.00 through CalTrans' Sustainable Planning Transportation Grant Program. These funds will be used to update the Transportation Element of the General Plan, ensuring that Needles grows in a sustainable and well-planned manner. This is a critical step in shaping the city's future transportation infrastructure to meet the needs of its residents.

3. **CalTrans Local Road Safety Program**

The city received \$40,000.00 from the CalTrans Local Road Safety Program. This grant will fund a city-wide systemic safety analysis, a vital initiative that will prepare Needles for the Highway Safety Improvement Program. The analysis will help identify key areas for safety enhancements, contributing to the well-being of all who travel through the city.

4. **U.S. Bureau of Reclamation WaterSMART Water and Energy Efficiency Program**

Lastly, Needles has been awarded \$582,463.72 through the U.S. Bureau of Reclamation's WaterSMART Water and Energy Efficiency Program. These funds will be used to upgrade the city's manual water and electricity meters to Automated Meter Reading (AMR), leading to more efficient resource use, reducing waste, and promoting sustainability.

Total Success: \$4,791,850.72 in Grant Funding

In total, the City of Needles has secured \$4,791,850.72 in grant awards, an extraordinary achievement that highlights the city's dedication to improving the lives of its residents. These grants will have a lasting impact, providing resources for parks and recreation, transportation planning, road safety, and utility efficiency.

City Manager **Patrick Martinez** stated:

“Securing nearly \$5 million in grant funding is a monumental achievement for the City of Needles. This success is a testament to the hard work and collaboration between our city administration, California Consulting, and our dedicated staff. Together, we have positioned Needles for a brighter future, one that prioritizes the well-being of our residents and the sustainable growth of our community.”

Needles is on a path of growth and innovation, and these grant awards demonstrate what can be achieved through strategic planning and effective partnerships. Congratulations to the City of Needles and all involved in securing these grants! This success story is a shining example of how targeted grant writing and collaboration can unlock new opportunities for communities across California. Keep an eye on Needles as these exciting projects come to life!



4. ANIMAL CONTROL

CITY OF NEEDLES



SPAY AND NEUTER CLINIC

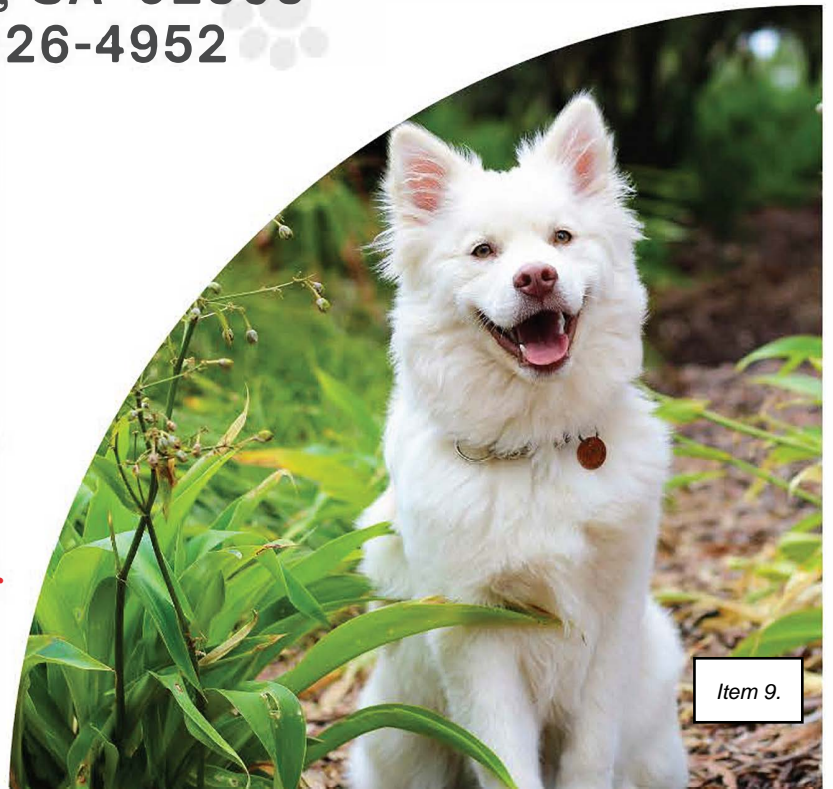
ANGEL'S TOUCH MOBILE VETERINARY UNIT

DR. ANGELINA BEEKS
NEEDLES ANIMAL SHELTER
1662 FLIP MENDEZ PKWY
NEEDLES, CA 92363
(760)326-4952

SEPTEMBER 26TH & 27TH

- ✓ Open to everyone
- ✓ By appointment only
- ✓ **CASH DEPOSIT REQUIRED**

**CALL THE SHELTER FOR SPAY/NEUTER
PRICING AND MORE INFORMATION. MUST
COME INTO SHELTER AND FILL OUT
APPLICATION AND PAY DEPOSIT TO
SECURE APPOINTMENT**



5. NEEDLES ELKS LODGE #1608 9/11 REMEMBERANCE



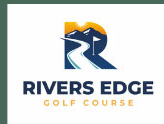
6. PALO VERDE COLLEGE MEET AND GREET DR. MOSES



7. PROFESSIONAL DEVELOPMENT & NEW EQUIPMENT



8. RIVERS EDGE GOLF COURSE



MEMBERSHIPS

Monthly Passes	Silver	Gold	*Route 66
	\$220	\$242	\$330
Silver – Golf Only	Gold – Golf & Driving Range		Route 66 – Golf, Cart & Range
Yearly Passes	Silver	*Gold	*Route 66
	\$1,100	\$1,430	\$1,650
Silver – Golf Only	Gold – Golf & Cart		Route 66 – Golf, Cart & Range

*Only Passes to Include Cart

All Passes may start at Customers Discretion 14 Day Booking Window



INITIATION FEE:

Initiation fee waived for all membership types

BENEFITS :

Applicable to All Membership Options Above

- No Green Fees; Pay only a cart fee for Silver & Gold Memberships
- Advanced Tee Time Privileges: Make tee times 14 days in advance...
- Discounts off Golf Lessons with Professional Staff
- 10% off Regular Priced Merchandise

www.golfneedlesca.com

Join Rivers Edge Today!

Looking for a new course to join this Fall? Look no further than Rivers Edge Golf Course. With the "Best Pricing" in the Tri-State Area, along with offering quality playing conditions.

Weekly Men's & Ladies Clubs - Driving Range - Monthly Clinics

For further information call Rivers Edge Pro Shop

(760) 326-3931

jjdeleon@golfneedlesca.com



and grille

**All Golf Outings
receive Golf, Cart,
Range Balls,
Professional Scoring
19th Hole F&B Options
Available**



**RIVERS EDGE
GOLF COURSE**



**BOOK YOUR 2024-2025
GOLF OUTING**

Our 2024-2025 Tournament Calendar is booking fast.
Do not miss out on your preferred date for the coming
2024-2025 season.

**BOOK YOUR TOURNAMENT FOR THE 2024-2025
SEASON TODAY!**

**CONTACT JJ DELEON AT 760 326 3931
OR
JJDELEON@GOLFNEEDLESCA.COM**



Book a Tee Time

Rivers Edge Golf Course

144 Marina Drive

(760) 326-3931 www.golfneedlesca.com

8. RIVERS EDGE GOLF COURSE UPGRADES





City of Needles

817 Third Street, Needles, California 92363
(760) 326-2113 • FAX (760) 326-6765
www.cityofneedles.com

Mayor, Janet Jernigan
Vice Mayor Kirsten Merritt
Councilmember Tona Belt
Councilmember Ellen Campbell
Councilmember Jamie McCorkle
Councilmember JoAnne Pogue
Councilmember Henry Longbrake

City Manager Patrick J. Martinez

MEMORANDUM

TO: HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

FROM: PATRICK J. MARTINEZ, CITY MANAGER

SUBJECT: WEEKLY MEMORANDUM

DATE: September 20, 2024

1. On **September 18, 2024**, City officials and staff attended this year's San Bernardino County "Empowering Tomorrow" State of the County event. Special thanks to Supervisor Dawn Rowe and San Bernardino County Transportation Authority Executive Director Ray Wolfe for their ongoing support and commitment to finding solutions for all cities in the county, with a special mention of Needles during their presentation. We also extend our gratitude to Andrew Goldfrach, CEO of Arrowhead Regional Medical Center, for his vision and dedication to ensuring all county residents, including those 200 miles away, receive the care they need. **Refer to the attached image for a snapshot of the event.**
2. On **September 19, 2024**, City officials and staff celebrated the groundbreaking of the **\$1.8 million Phase IV-A Street Improvement Project**. This project aligns with the City Council's ongoing commitment to revitalizing street and water infrastructure. In 2019, the City adopted an ambitious 15-year Pavement Management Plan (PMP) to maintain and improve 47 miles of city streets. To date, the City has successfully paved approximately 17 miles.

Vance Construction Company has already begun mobilizing equipment, with street grinding starting next Monday and paving scheduled to follow in a few weeks. Phase IV-A will focus on paving several main roads, including Desoto St., Cibola St., F St., E St., Downey St., Valley St., Fourth St., and G St. These improvements are designed to enhance road safety, reduce maintenance costs, and improve overall driving conditions for residents. By addressing these critical streets, we ensure our City remains well-maintained and accessible for years. **For additional information, refer to the attached image.**

We will hold a second groundbreaking on **October 1, 2024**, for the Obernolte Street Improvement Project, which will focus on streets near the school area. Additionally, the City Council has approved Phase IV-B, which includes water service

replacement in preparation for street paving in early 2025. Streets scheduled for paving in 2025 include Carty Way, Carty Circle, Carty Place, El Monte St., I St., H St., G St., Crestview Dr., and Desoto St. These improvements go beyond basic infrastructure and reflect our dedication to building a stronger, safer, and more resilient community for all residents.

3. IEHP Covered offers affordable health coverage for residents of San Bernardino and Riverside counties, providing essential healthcare services to those in need. All IEHP Covered plans include free preventative care, and eligible members may qualify for Enhanced or Cost Share Reduction (CSR) Silver plans with \$0 deductibles and low out-of-pocket costs. These plans cover 10 categories of Essential Health Benefits, as required by the Affordable Care Act. In addition, IEHP members have access to medical transportation services for appointments, including travel to facilities like Arrowhead Regional Medical Center, located over 200 miles away. For more details, call 1-877-273-IEHP (4347) or visit their website. **For more information about specific coverage options, click [here](#).**
4. On **Wednesday, October 2, 2024**, Needles Area Transit, in partnership with other transit providers from the San Bernardino County Transit Authority, will be offering free fares all day long. No reservations are required—just hop on a Needles Area Transit bus and enjoy your complimentary ride! For more details, **refer to the attached flyer** or contact Community Services at 760-326-2113 ext. 115, or via email at csallis@cityofneedles.com. Don't miss out—come out and ride!
5. This week, City Staff met with Jartino Spencer, a Victim Advocate from the Bureau of Victim Services stationed in Needles through the San Bernardino County District Attorney's Office. He assists crime victims by providing financial and healing resources. Mr. Spencer is located at 1111 Bailey Avenue and can be reached at 760-326-9245. The District Attorney assigns a Victim Advocate once charges are filed. **For more details, refer to the attached Bureau of Victim Services flyer.**
6. The City's Public Works staff is actively repairing deteriorated sidewalks to ensure public safety and improve infrastructure. Ongoing projects, such as the repair at the Women's Club (**refer to the attached image**), demonstrate our commitment to these efforts. We encourage residents to report any damaged sidewalks, potholes, or road issues by contacting the City of Needles Billing Office at 760-326-2115 (press #9) or through the Needles Connect app, available on both the [Apple App Store](#) or [Google Play Store](#). Your feedback is invaluable in helping us maintain and improve our streets. Please don't hesitate to reach out with concerns or to report issues—your involvement is essential to our community's progress.
7. The City's Public Works staff recently repainted the barriers of the Needles Bridge following vandalism, which costs the city thousands of dollars annually. For a visual update, **refer to the attached image**. To combat this, the city promptly repairs damage and reports incidents to law enforcement. In 2019, the City Council passed

Ordinance No. 624-AC, strengthening enforcement against vandalism, including graffiti on public and private property. If you witness vandalism, please report it to the San Bernardino County Sheriff's Office at (909) 387-8313. Additionally, contact the City (760) 326-2115 for graffiti removal or use the convenient Needles Connect app, available on both the [Apple App Store](#) or [Google Play Store](#).

8. **Last April**, the Needles Chamber of Commerce took over management of the Business Directional Sign Program, which provides travelers with key information about local landmarks and businesses within the City of Needles. Thanks to a generous donation of nearly \$8,700 from Supervisor Dawn Rowe, the revitalization of the signs is now underway and is expected to be completed by the end of the year. Businesses interested in participating in this program are encouraged to contact the Chamber directly at info@needleschamber.com.

Additionally, the Needles Chamber of Commerce is hosting the State of the City event on **October 3, 2024, from 6:00 p.m. to 8:00 p.m.** Businesses are invited to participate in the **Market Night earlier from 4:00 p.m. to 6:00 p.m.**, offering a great opportunity to showcase products and services to Needles residents. To reserve a table, please contact the Chamber at 760-326-2050 or email info@needleschamber.com. **Refer to the attached flyer for additional information.**

9. For the first time, [Ventura Circus](#) is coming to Needles! Come and experience the enchantment of "The Dream," a traditional American family circus showcasing everything from juggling and clowns to stunning aerial acrobatics. Performances will run from **October 10 through October 21, 2024**, with the opening night set for **7:00 p.m. on October 10 at 100 G Street in Downtown Needles**. Don't miss out on this unforgettable event—tickets can be purchased by clicking this [link](#).
10. The Needles Department of Motor Vehicles (DMV) Field Office temporarily closed for remodeling last May to enhance customer experience. We're excited to announce that the newly improved office is expected to reopen **on October 7, 2024**, with upgraded facilities designed to provide a more comfortable and efficient service experience for our community. We look forward to welcoming you back!
11. **IMPORTANT UPCOMING DATES:**
 - **Animal Shelter Spay/Neuter Clinic on September 26 and 27.** Is sold out.
 - **15th Annual Lynne's Little Ladies Tea Party on Saturday, September 21, 2024, from 1:00 to 3:00pm** at the Needles Women's Club.
 - **Annual Bridge to Bridge First Responders Appreciation Day on Saturday, October 12, 2024, from 11 am-2 pm** at the Mohave Valley Legacy Community Park at 9200 Aquarius, Mohave Valley.
 - **Ribbon Cutting Ceremony: The Well No. 11 Water Treatment Facility Project is anticipated for mid-October.** The date, time, and location are TBD.
 - **SBCSD/Needles Police 5th Annual Trunk or Treat Event on Wednesday, October 30, 2024, from 4:00 PM to 6:00 PM** at the Recreation Center parking

lot at 1705 J Street. If you're interested in participating, please get in touch with Misty Hunt at 760-526-9200 or mhunt@sbcscd.org.

- **Community Fall Festival: November 2, 2024, from 9:00 AM to 2:00 PM** at 950 Front Street. To participate vendors can contact Jennifer Valenzuela, Recreation Manager, via email at jvalenzuela@cityofneedles.com or directly at 760-326-2814.

1. STATE OF THE COUNTY



2. PHASE IV-A STREET GROUNDBREAKING



2. PHASE IV-A STREET GROUNDBREAKING



NEEDLES AREA TRANSIT

CLEAN AIR AND FREE FARES!



A PROJECT OF THE COALITION FOR CLEAN AIR

Celebrate California Clean Air Day on **Wednesday October 2** by riding public transit in the San Bernardino region.

Check with your local system for details.

RIDE FREE ALL DAY AND HELP CLEAR OUR AIR!

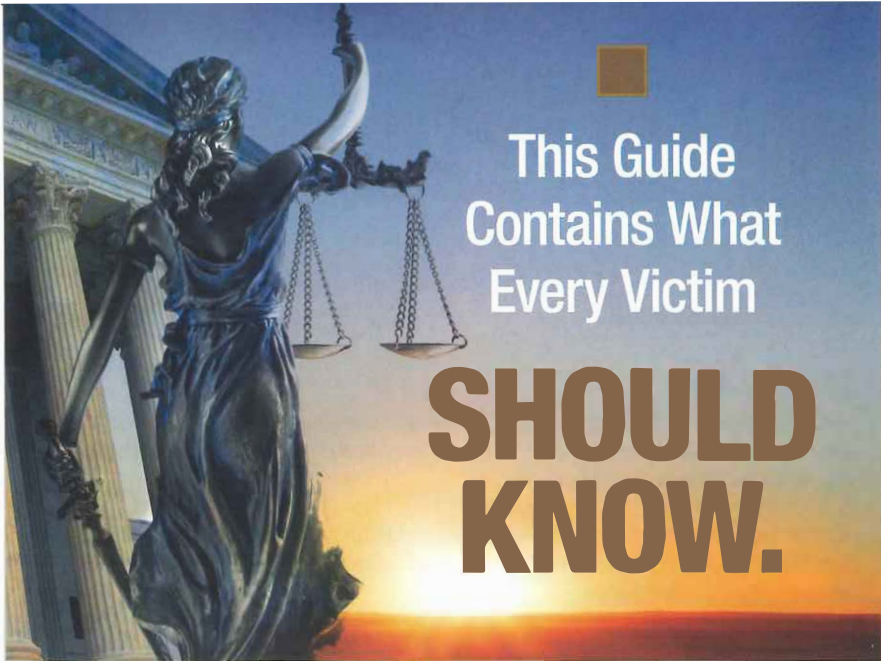


Powered by



San Bernardino
Transportation Authority

Item 9.



This Guide
Contains What
Every Victim

SHOULD KNOW.

As a **Victim** or **Witness** of a Crime,
You are Vital to the **Criminal Justice Process**.

The **Bureau of Victim Services**
Can Provide **Guidance** During this Process.



Jason Anderson
District Attorney | San Bernardino County

“ I recognize that being a victim and witness to a crime can cause fear and uncertainty. Our role is to alleviate that fear by honestly explaining what you can expect in court, explain what financial and healing services we can provide and assist with, and that victims of crime are protected under the California Constitution. This guide is intended to explain your value and the important role you serve in our criminal justice system.”

5. **VICTIM ADVOCATE**

Bureau of Victim Services

Monday - Friday 8:00AM - 5:00PM

SAN BERNARDINO

303 W. 3rd St.
909 382.3846

RANCHO CUCAMONGA

8303 Haven Ave., 4th Fl.
909 945.4241

MORONGO

6527 White Feather Rd.
760 366.5740

JUVENILE UNIT

303 W. 3rd St.
909 382.3846

VICTORVILLE

15371 Civic Drive
760 552.6947

VICTIM COMPENSATION CLAIMS UNIT

909.386.9130

Satellite Locations

SB SHERIFF'S HEADQUARTERS

655 E. 3rd St.
909.387.3586

ARROWHEAD REGIONAL MEDICAL CENTER

400 N. Pepper Ave., Colton
909 580.1443

ONTARIO POLICE DEPT.

2500 S. Archibald Ave.
909 408.1073

BARSTOW POLICE DEPT.

500 Melissa St.
760 255.5185

Needles Sheriff's Dept.
1111 Bailey Ave.
(760) 326-9245



Scan QR Code for Our Website and Social Media Links

**COURT
CASE NO.**

Fill In Your Court Case Number Here for Easy Reference.

This publication was supported by funding awarded by Federal Grant Fund Sub-Award number XC20 03 0360 through the California Governor's Office of Emergency Services (Cal OES).



BUREAU OF **VICTIM SERVICES**

Your Guide as Your Case Moves
Through the Criminal Justice System.



Criminal Justice System Guidelines



Victim & Witness Services

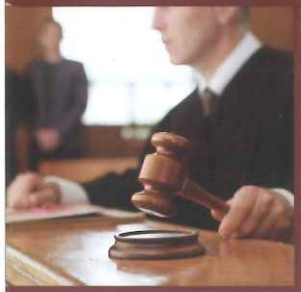


Victims' Bill of Rights

Our Program Values Diversity and does not Discriminate Based on Race, Religion, National Origin, Age, Physical Ability, Gender or Sexual Orientation.

For More Information Visit www.SBCountyDA.org

SAN BERNARDINO COUNTY DISTRICT ATTORNEY'S OFFICE



Criminal Justice System Guidelines

An Overview of Your Case Proceedings:

The Subpoena –Don't Ignore It

A subpoena is a court order requiring you to appear in court. You can receive it in person, by mail, or electronically.

Sometimes a case will be postponed or "continued." If your case is "continued" before your appearance date, we will make every effort to inform you.

Misdemeanor Trial

In misdemeanor cases, your testimony will be needed during trial.

The Preliminary Hearing

In felony cases, you may be required to testify. While not a trial, it is a hearing at which the judge determines if there is sufficient evidence to "hold the defendant to answer" for their actions and stand trial.

Arraignment in Superior Court

If the defendant is "held to answer" for their crimes, they will be arraigned again in Superior Court within fifteen days. You do not have to appear at this hearing.

Verdict and Sentencing

When the defendant is sentenced, you have the right to appear and make a statement about how the crime has affected you and your family, and what punishment you feel is appropriate. A Victim Advocate may accompany you to court to support you or can read your statement on your behalf.

Felony Trial

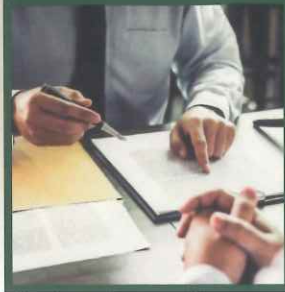
California law requires that a defendant charged with a felony be brought to trial within 60 days of the filing charges, unless that right is waived by the defendant. In some cases, this time could extend to several months or even longer. You will need to testify at the trial, even if you testified at the preliminary hearing. In some cases, a trial will not be held because the defendant pleads guilty.

Your Testimony

You may be called to testify in court by a deputy district attorney. After he/she has asked the questions, the defense attorney has the right to test your memory of the facts, or to "cross-examine" you. You may be excluded from the courtroom when other people are testifying. This is to ensure that the testimony or memory of one witness does not influence the testimony of another.

The Defense Attorney

The defense attorney may ask to speak with you to find out the nature of your testimony. There are no laws or rules prohibiting you from telling the defendant's attorney or representative what your testimony will be. **However, you are not required to do so; this is your decision.** You may discuss any of this with the deputy district attorney. If you choose to speak with the defense, you may wish to have another person present or record the interview to avoid later misquotations and misunderstandings.



Victim & Witness Services

We Can Help You in the Following Ways:

Case Information

Our team can provide court case status and hearing dates. They can also coordinate transportation when a victim has been subpoenaed to testify.

Crisis & Emergency Assistance

Our team provides crime related crisis intervention and when necessary, emergency services such as funeral and burial assistance, food, shelter, clothing, and referrals to medical and mental health care.

Support with Your Testimony

We can help coordinate your scheduled appearance and prepare you with what to expect. Upon request, Victim Advocates accompany victims, witnesses, and their family members to court proceedings for support and may sit on the stand while you testify.

Restitution & Creditor Assistance

If you have suffered a financial or property loss as a direct result of a crime, we can explain the process of a restitution order, and advise you on what documentation is needed. Also, injuries or court appearances may affect your earnings. Our staff can advocate on your behalf with creditors to explain your situation and encourage them to work with you.

Property Return

In some criminal cases, personal property is held as evidence by law enforcement or by the court. Our team can assist with the request for the return of your property when the case is concluded.

Victim Compensation Claims

Victims and their families may be eligible for reimbursement through the California's Victim Compensation Program for out-of-pocket expenses resulting from a crime. Funds may be available for medical expenses, lost wages or support, funeral expenses, mental health counseling, and physical therapy. We will advise you on your eligibility and help prepare and submit a claim on your behalf.

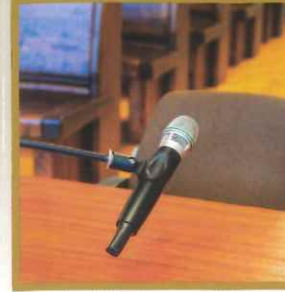
Counseling Assistance

Victim Advocates are familiar with local, state, and national resources and can provide referrals to the help for your specific needs.

Defendant Release Information

We can assist you in registering to receive notifications when any defendant that is housed in San Bernardino County Jail or a correctional facility is scheduled for release or transfer.

You can also call **877.411.5588** or visit www.VineLink.com



Victims' Bill of Rights

A Quick Look at Some of Your Rights:

Marsy's Law

On November 4, 2008, Proposition 9, the Victims' Bill of Rights Act of 2008: Marsy's Law was approved. This measure amended the California Constitution to provide additional rights to victims.

Crime victims may obtain additional information regarding Marsy's Law by contacting a local District Attorney's Victim Services Center, or by visiting www.sbcountyda.org.

As a Victim of Crime, You have the Right to:

- Be treated with dignity and compassion.
- Be protected from intimidation and harm.
- Be informed about the criminal justice system and the status of your case.
- Be informed of social services and resources available in the community.
- Have help in dealing with the system and be accompanied to court for support.
- Have your opinions considered at the sentencing and parole phases of a case.
- Be compensated for injuries, wage loss, and funeral expenses.

6. PUBLIC WORKS UPDATE



7. NEEDLES BRIDGE UPDATE



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Item 9.

8. STATE OF THE CITY



Exhibit Your Business at "The State of the City" Market Night!

We wanted to let you know about a fantastic opportunity to showcase your business at our upcoming "STATE OF THE CITY " event. This year, prior to the meeting, we are creating an open-air market setting on the lawn of El Garces. We're inviting our members, including you, to reserve a space, bring a table, and take the opportunity to engage with the community, network with fellow business owners, and promote your products or services.

Event: State of the City

Date: October 3rd

Time: 6 p.m. to 8:00 p.m.

Location: Meeting -El Garces

Market Night: Park

Cost: Market Night participation is 25.00 for Chamber Members
125.00 for Non Chamber Members (includes membership)

If you are interested in reserving a table or have questions feel free to call the Chamber at 760-326-2050

Space is limited, Don't miss this opportunity!

Looking forward to hearing from you!

The Team at the Chamber!



NEEDLES
CHAMBER OF COMMERCE
AND
VISITOR CENTER

9. VENTURA CIRCUS



VENTURA
Circus

**FIRST TIME EVER
IN NEEDLES!**

**VENTURA
CIRCUS!**

\$5 OFF
1 ADULT & 1 CHILD
WITH THIS FLYER
NOT VALID WITH ANY OTHER OFFER.

The flyer features a vibrant purple and pink background with a starburst pattern. In the top left, a woman in a black outfit is suspended in the air. To her right, a man in a blue and red outfit is performing a handstand. In the bottom left, a clown in a colorful checkered suit and green hat is smiling. In the bottom right, two women in black and purple costumes are posing. A large blue globe is visible in the middle left. The text 'VENTURA CIRCUS!' is written in large, colorful letters across the middle. The central offer '\$5 OFF 1 ADULT & 1 CHILD WITH THIS FLYER' is prominently displayed in a white starburst shape, with a smaller note below it stating 'NOT VALID WITH ANY OTHER OFFER.' The top right corner features the text 'FIRST TIME EVER IN NEEDLES!' in bold yellow letters.

9. VENTURA CIRCUS

A vibrant poster for the Ventura Circus event. The background features a pink and purple sunburst pattern. At the top, two purple signs with white text read "OCT 10 THRU OCT 21". In the center, a blue globe is surrounded by various circus performers: two women in purple and black outfits, a man in a purple and blue outfit performing a handstand, and a woman in a black outfit performing a high kick. The Ventura Circus logo, featuring a red and yellow striped tent and the word "VENTURA" in a stylized font, is in the top right. The word "VENTURA" is written in yellow and pink above "CIRCUS!" in pink and yellow. At the bottom, the word "NEEDLES" is written in large, white, bold letters with a pink outline. Below it, the event details are listed in white, bold letters with a pink outline: "CIRCUS EVENT - 100 G ST", "THURSDAY OPENING NIGHT 7 PM", "MON - FRI 7:30 PM", and "SAT & SUN 12, 4 & 7 PM".

OCT 10 THRU OCT 21

VENTURA CIRCUS!

NEEDLES

CIRCUS EVENT - 100 G ST

THURSDAY OPENING NIGHT 7 PM

MON - FRI 7:30 PM

SAT & SUN 12, 4 & 7 PM