



**LINCOLN-SMD 1 WASTEWATER AUTHORITY
MEETING AGENDA**

Regular Meeting of the Board of Directors

Lincoln City Hall, Third Floor Council Chambers
600 Sixth Street, Lincoln, CA 95648

April 12, 2024, at 10:00 a.m.

The public may also observe and participate in the meeting via Zoom at the following
videoconferencing link:

https://us06web.zoom.us/webinar/register/WN_L2bYfOdARYiQxL2vDwckAQ

Board of Directors

COUNTY OF PLACER

Jim Holmes, Chair
Shanti Landon

CITY OF LINCOLN

Holly Andreatta, Vice Chair
Dan Karleskint

General Manager and Secretary

George Barber

Legal Counsel

Wes Miliband

PRELIMINARY MATTERS

- A. CALL TO ORDER
- B. PLEDGE OF ALLEGIANCE
- C. ROLL CALL
- D. PUBLIC COMMENT ON NON-AGENDA ITEMS

Any member of the public wishing to address the Board of Directors regarding items not on the Agenda within the Authority's subject matter jurisdiction should do so at this time. With respect to items on the Agenda, the Board will receive public comments at the time the item is opened for discussions, prior to any vote or other Board action. A three-minute time limit is requested. Please complete a speaker card and submit it to the General Manager at the meeting.

ACTION CALENDAR

- 1. APPROVAL OF MINUTES – 03/08/24 Regular Meeting
- 2. CONSENT ITEMS



It is recommended by the General Manager that these items, which are expected to be routine in nature and without controversy, be received and acted upon by the Board without discussion. If any Board member or interested party requests that an item be removed from the Consent Calendar for discussion, it will be considered separately. The consent calendar may be approved by a single motion to approve, followed by a second and then a call for vote.

- 2.1 APPROVAL AND AUTHORIZATION TO MOVE THE AUTHORITY WEBSITE TO GHD DIGITAL FOR WEBSITE HOSTNG AND WEB CONTENT MANAGEMENT.
3. GENERAL MANAGER'S REPORT AND UPDATE – A written and verbal report.
4. OPERATIONS REPORT AND UPDATE – A written and verbal report.
5. OLD BUSINESS: WASTEWATER TREATMENT AND RECLAMATION FACILITY PLC REPLACEMENTS – Consider approval to amend the budget for the purpose of PLC equipment replacements.
6. CONSIDER THE CANCELLATION OF THE JULY 2024 BOARD MEETING AND SET A SPECIAL BOARD MEETING DATE – Consider the cancellation of the July 2024 Board meeting and set a Special Meeting on a date to be chosen by the Board. - Discussion and potential action to set a special meeting during July.
7. WWTRF IMPROVEMENT PROJECT UV OPTIONS – Presentation and seeking Board direction on UV disinfection options for the upcoming WWTRF Improvement Project.
8. WASTE DISCHARGE REQUIREMENTS *TENTATIVE* ORDER, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT CA0084476, FOR THE LISWA WASTEWATER TREATMENT AND RECLAMATION FACILITY – Update, discussion and potential direction from the Board regarding the Regional Water Quality Control Board's Notice of Public Hearing for April 19, 2024 for the Tentative Order.
9. CONSIDER ACCEPTING THE OPERATIONS CONTRACT AD HOC COMMITTEE RECOMMENDATION AND DIRECT STAFF AND LEGAL COUNSEL TO NEGOTIATE A FINAL CONTRACT FOR CONSIDERATION BY THE BOARD REGARDING THE OPERATION, MAINTENANCE AND MANAGEMENT OF LiSWA's WASTEWATER TREATMENT AND RECLAMATION FACILITIES – A verbal report will be provided.
10. CONSIDER PROVIDING CONSENT TO TOTAL ENERGIES (THE POWER PURCHASE AGREEMENT HOLDER FOR LISWA) TO PARTICIPATE IN THE CALIFORNIA DEMAND SIDE GRID SUPPORT PROGRAM. – Discussion and potential action to consider providing consent from LiSWA to Total Energies to participate in the Demand Side Grid Support program. A written and verbal report will be provided.
11. 2024/25 BUDGET PRESENTATION – First presentation of the proposed 2024/25 budget for Board review and input.
12. LEGAL REPORT – Counsel will provide a verbal report if relevant legislative, case, or related developments have occurred.
13. DIRECTOR'S COMMENTS



14. CLOSED SESSION MATTERS: CONVENE TO CLOSED SESSION FOR MATTER(S) LISTED ON THE AGENDA

- 14.1 THREAT TO PUBLIC SERVICES OR FACILITIES pursuant to Gov. Code § 54957 (a) Consultation with: George Barber, General Manager and Jennifer Brown, City of Lincoln Chief Innovation and Technology Officer
- 14.2 Public Employee Evaluation
(Government Code § 54957(b)(1))
Title: General Manager and Board Secretary

ADJOURNMENT

THE FOLLOWING INFORMATION IS PROVIDED TO ASSIST WITH PUBLIC PARTICIPATION:

Americans with Disabilities Act (ADA): In compliance with the ADA, if you need special assistance to participate in this meeting or other services in conjunction with this meeting, please contact the Lincoln City Clerk's Office at (916) 434-2490. The meeting room is wheelchair accessible and disabled parking is available. Notification at least 24 hours prior to the meeting or time when services are needed will assist staff in assuring reasonable arrangements can be made to provide accessibility to the meeting or service.

Agenda Availability: The main posting location of the LiSWA Agenda is on the public kiosk outside the entrance of Lincoln City Hall, 600 6th Street, Lincoln, California. Agenda Packets are available for review at the Lincoln City Clerk's Office, 600 6th Street, Lincoln, California.



**LINCOLN-SMD 1 WASTEWATER AUTHORITY
MEETING MINUTES**

Regular Meeting of the Board of Directors

March 8, 2024, at 10:00 a.m.

Board of Directors

COUNTY OF PLACER

Jim Holmes, Chair
Shanti Landon

CITY OF LINCOLN

Holly Andreatta, Vice Chair
Dan Karleskint

General Manager and Secretary

George Barber

Legal Counsel

Wes Miliband

PRELIMINARY MATTERS

- A. CALL TO ORDER - The meeting was called to order at 10:00 am.
- B. PLEDGE OF ALLEGIANCE-The pledge was led by Chair Holmes.
- C. ROLL CALL

Jim Holmes, Chair
Holly Andreatta, Vice Chair
Dan Karleskint, Director
Shanti Landon, Director
Staff present:
George Barber, General Manager and Board Secretary
Wes Miliband, Legal Counsel

- D. PUBLIC COMMENT ON NON-AGENDA ITEMS

There were no public comments on non-agenda items.

ACTION CALENDAR

- 1. APPROVAL OF MINUTES – 02/16/24 Special Meeting
Motion to approve by Director Karleskint, Second by Director Landon, Approved 4-0.
- 2. CONSENT ITEMS



2.1 CONSIDER APPOINTING GEORGE BARBER AS THE DESIGNATED CIVIL ENGINEER FOR LISWA

Motion to approve by Director Landon, Second by Director Andreatta, Approved 4-0.

3. GENERAL MANAGER'S REPORT AND UPDATE - A written and verbal report was provided discussing normal business and the contract operations RFQ process.
4. OPERATIONS REPORT AND UPDATE - A written and verbal report was provided by Gary Hengst, Chief Operator, Board questions were answered as he discussed projects and operations.
5. RESOLUTION OF THE BOARD OF DIRECTORS OF LISWA AUTHORIZING LISWA SUPERVISION AND REGULATION OF THE WWTRF EXISTING SIX BASINS/PONDS AND THE FUTURE TERTIARY STORAGE BASIN 3 - A written and verbal report was provided discussing the supervision and regulation of LiSWA basins. Motion to approve by Director Karleskint, Second by Director Andreatta, Approved by Roll Call 4-0.

CONSIDER THE CANCELLATION OF THE JUNE 2024 BOARD MEETING AND SET A SPECIAL BOARD MEETING DATE – The cancellation and alternative dates were discussed. A motion to cancel the Regular Board meeting of June 14, 2024 and set a special meeting for June 28, 2024 was made by Director Landon, Second by Director Andreatta, Approved 4-0.

6. WASTEWATER TREATMENT AND RECLAMATION FACILITY REPLACEMENTS 3 – The Board considered and discussed the purchase of Blended Polymer Flow Meters and Programmable Logic Controllers and I/O Modules. Motion to approve the purchase of the Blended Polymer Flow Meters by Director Karleskint, Second by Director Landon, Approved 4-0. It was determined to table the purchase of the Programmable Logic Controller and I/O modules until a future date.
7. APPROVAL AND AUTHORIZATION TO EXECUTE AN AMENDMENT TO THE AGREEMENT WITH STANTEC FOR THE OPERATION OF LISWA FACILITIES TO CONTINUE OPERATIONS UP TO TWO MONTHS - A written and verbal report was provided discussing the operations contract process and the need for an extension in order to not rush that process. Motion to approve by Director Landon, Second by Director Karleskint, Approved 4-0.
8. LEGAL REPORT – Legal Counsel had no report.
9. DIRECTOR'S COMMENTS – Director Andreatta requested more detailed information in staff reports.
10. CLOSED SESSION MATTERS: CONVENE TO CLOSED SESSION FOR MATTER(S) LISTED ON THE AGENDA
 - 10.1 Public Employee Evaluation
(Government Code § 54957(b)(1))
Title: General Manager and Board Secretary

The Board went into closed session at 10:52 am and came out of closed session at 11:35 am. Legal Counsel reported there was no reportable action.

ADJOURNMENT– Meeting was adjourned at 11:36 am.



Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting

Agenda Item #2

SUBJECT: Consent Items

It is recommended by the General Manager that these items, which are expected to be routine in nature and without controversy, be received and acted upon by the Board without discussion. If any Board member or interested party requests that an item be removed from the Consent Calendar for discussion, it will be considered separately. The consent calendar may be approved by a single motion to approve, followed by a second and then a call for vote.

2.1 APPROVAL AND AUTHORIZATION TO MOVE THE AUTHORITY WEBSITE TO GHD DIGITAL FOR WEBSITE HOSTING AND WEB CONTENT MANAGEMENT.

The City of Lincoln is creating an Economic Development microsite and LiSWA is eligible for a reduced rate for web hosting services. We are proposing to move the LiSWA website to this new platform that will still work with “.Gov” when we receive approval. This move comes with the recommendation of Jennifer Brown, Chief Innovation and Technology Officer for the City of Lincoln.

Action Requested:

“Approval to move the LiSWA website to GHD Digital in an amount not to exceed \$16,000 and authorize the General Manager to execute and administer appropriate documentation.”



Products & Services

Line Item	Description	Quantity	Fee
Govstack Microsite - Bundle Add-on Implementation - LiSWA	<ul style="list-style-type: none">- Setup and Configuration- Project Management- Sample sitemap from a similar organization and a tip sheet of site navigation best practices- Branding- Training- Go live activities	1	\$13,250.00
Govstack Microsite - Bundle Add-on Subscription - LiSWA	<ul style="list-style-type: none">- One specialized website based around a theme such as Tourism, Economic Development, or special project or initiative.- Hosted within the same CMS instance as your primary website- Displays as a standalone website with it's own website domain/address, logo, header/footer, theme/branding, alerts, news/subscriptions, and reusable content (separate from the primary website for the organization)- Subscription includes licensing & hosting fees, SSL certificate, and ongoing product & security updates	1	\$1,910.00 /year
	Annual subtotal		\$1,910.00
	One-time subtotal		\$13,250.00
	Total		\$15,160.00

Product Solution: PnP - Govstack Website Builder + CMS (Umbraco + uSkinned)

License Term: 36 months

Payment Terms: Net 30 days, USD

Quote Expiry Date: March 31, 2024

Comments:

This pricing is applicable only when bundled with the Govstack Microsite for Economic Development for the City of Lincoln.

Contact Details

Customer Contact

City of Lincoln, CA

Jennifer Brown

Product Administrator

jennifer.brown@lincolnca.gov

914-434-2400

600 Sixth Street

Lincoln, California, United States 95648

Contact Us:

Honey Mehra

honey.mehra@ghd.com



Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting

Agenda Item #3

SUBJECT: General Manager's Report

- My focus has been on the Operations Contract process, developing the draft budget, and working with Stantec on the Improvement Project.
- Met with Lincoln Solar Star on Demand Mitigation Program, more information provided in the agenda item.
- Met with the Treasurer, Municipal Finance Advisor, and Bond Counsel to discuss Bold Financing. Legal Counsel and I are working on items for potential future Board action.
- The appraisers have completed their field work and are working on the report.
- I have been working with the Ad Hoc Committee for the Operations Contract and expect to bring a recommendation to the meeting. We made an additional request to the top two candidates, and we received their responses on April 4th. The Ad Hoc Committee will meet on April 10th. The top two candidates both spent a couple days at the WWTRF.
- The LISWA NPDES permit requires the development and implementation of an Industrial Pretreatment Program ("IPP"). The IPP requires the identification of Significant Industrial Users that are required to install pretreatment before discharging to the sewer collection system. The program monitors these dischargers, and an annual report is developed. I have attached the report for 2023. West Yost has been conducting the program for both the City of Lincoln and Placer County. The last agreements did not go out to a request for proposal process in either case because they were happy with the West Yost efforts, and they were not happy with the previous consultant's work. I reviewed this issue with the TAG and they support the idea that LiSWA should be handling this program moving forward. We anticipate this effort would be about \$70,000 to cover both entities. I would like some direction from the Board if they would prefer this go out in an RFP or I include it in the West Yost 2024-25 Budget.
- LiSWA owns and operates the main sewer trunk line that leads to the WWTRF. Since we now own part of the collection system, we are required to develop a Sewer System Management Plan. We have a copy of the City of Lincoln plan and we believe we can complete this ourselves.
- All Directors and Alternates have completed the Form 700's, thank you.
- I have not yet resumed the development of the connection fee analysis, but I will work with the TAG and the Treasurer to seek input on the analysis when the WWTRU update work is complete.
- I am in regular communication with Gary about operations.

Item	Status	Working with	Notes- Green Complete Yellow New
Current Projects			
Reclaimed Water Cost Study			
Connection Fee Analysis	In process		Discussed w/ TAG, developing
Operations RFQ	In process		Selection process continues
Phase I Improvements	In process		Engineering in process
Website	In process		Moved to LiSWA.com while getting .gov approval
NPDES Permit	Renewal in Process		On Agenda
Financial			
Develop and Approve Budget	Completed	Lincoln Finance	Completed
Develop process for paying bills with Placer County Treasurer/Auditor	Completed	Placer	Paying Invoices and Billing
Set Charge per WWTRU	Completed	Lincoln/Placer	Approved
Transfer Funds to County	Completed	Lincoln /Placer	Completed
West Yost Billing approval process	Completed		Approved through County Process
Select Municipal Financial Advisor	Completed		Contract on Agenda
Obtain Insurance	Completed		Delivery of Information ongoing
Property Transfers			
Wastewater Treatment Plant	Completed	Lincoln Admin/County Counsel	
Conservation Easement	Completed	Lincoln Admin/County Counsel	Agreement executed
Vehicles	Completed	Lincoln PW	Received form, DMV next..
Business Property	Completed	Lincoln Admin	Inventory list and Bill of Sale
Equipment	Completed	Lincoln PW	Inventory list and Bill of Sale
Fixtures	Completed	Lincoln PW	Inventory list and Bill of Sale
Supplies	Completed	Lincoln PW	Inventory list and Bill of Sale
Operations Transfers			
Stantec Operations Agreement	Completed	Lincoln Admin	
Solar Star Power Purchase Agreement	Completed	Lincoln Admin/County Counsel	
Solar Star Site Lease Agreement	Completed	Lincoln Admin/County Counsel	
Machado Recycled Water Agreement	Completed	Lincoln Admin/County Counsel	

Farm Management of Effluent Disposal Lands Auburn Ravine Ranch	Completed	Lincoln Admin/County Counsel	
Western Placer Waste Management Authority Agreement	Completed	Lincoln Admin/County Counsel	
Radmall Lease	Completed	Lincoln Admin/County Counsel	
Utility Services	Completed	Lincoln Admin	
Alarm systems	Completed	Lincoln Admin/County Counsel	
Ensure proper transfer of SMD1 duties	Completed	Stantec/Placer	
Other			
City of Lincoln Admin/IT and Public Works services	Completed		Approved by the Board
Logo, Letterhead, etc.	Completed		
Policies and Procedures			
Debt Management Policy	Completed		Approved
Establish WWTRU Policy	Completed	Lincoln/Placer	Approved

2023 Industrial Pretreatment Program Annual Report

PREPARED FOR

City of Lincoln



PREPARED BY



2023 Industrial Pretreatment Program Annual Report

Prepared for

City of Lincoln

Project No. 206-50-23-50



Project Engineer: Charles Hardy, PE

February 27, 2024

Date

A handwritten signature in black ink that reads "R Kapur".

QA/QC Review: Raj Kapur, PE (OR)

February 27, 2024

Date

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LIST OF ACRONYMS AND ABBREVIATIONS

BMR	Baseline Monitoring Report
Central Valley Water Board	Central Valley Regional Water Quality Control Board
City	City of Lincoln
CIU	Categorical Industrial User
CIWQS	California Integrated Water Quality System Project
County	Placer County
FOG	Fats, Oils, and Grease
IPP	Industrial Pretreatment Program
IWDP	Industrial Wastewater Discharge Permit
Kracon	Kracon Aircraft Refinishing
LiSWA	Lincoln-Sewer Maintenance District 1 Wastewater Authority
Morgan	Morgan Advanced Materials
NPDES	National Pollutant Discharge Elimination System
NPDES Permit	Waste Discharge Requirements Order R5-2018-0081, NPDES No. CA0084476
POTW	Publicly Owned Treatment Works
Recology	Recology Auburn Placer
Regional Water Board	Central Valley Regional Water Quality Control Board
RCRA	Resource Conservation and Recovery Act
SIU	Significant Industrial User
SNC	Significant Non-Compliance
SMD 1	Sewer Maintenance District No. 1
SWDA	Solid Waste Disposal Act
TTO	Total Toxic Organic
USEPA	United States Environmental Protection Agency
WWTRF	LiSWA Wastewater Treatment and Reclamation Facility
40 CFR	Title 40, Code of Federal Regulations

2023 Industrial Pretreatment Program Annual Report

The Lincoln-Sewer Maintenance District 1 Wastewater Authority (LiSWA), a joint powers authority between the City of Lincoln (City) and Placer County (County), owns the LiSWA Wastewater Treatment and Reclamation Facility (WWTRF). The WWTRF discharges tertiary treated effluent to the Auburn Ravine Creek subject to requirements of the Central Valley Regional Water Quality Control Board's (Regional Water Board's or Central Valley Water Board's) Waste Discharge Requirements Order R5-2018-0081, National Pollutant Discharge Elimination System (NPDES) No. CA0084476 (NPDES Permit).

The NPDES Permit requires that an annual report of Industrial Pretreatment Program (IPP) activities for the WWTRF be submitted covering IPP activities for the previous calendar year. The report must be submitted to the Regional Water Board, State Water Resources Control Board and U.S. Environmental Protection Agency (USEPA) Region 9 by February 28 each year.

West Yost is an engineering consultant to the City and County, assisting with IPP activities for the collection systems that discharge to the WWTRF, and has prepared this 2023 IPP Annual Report to provide the required information on the WWTRF IPP activities for the calendar year 2023 (January 1 through December 31, 2023). The City and the County entered into a Joint Powers Agreement for ownership and operations of the WWTRF effective November 30, 2022.

This report is organized by the following topics:

- Overview of WWTRF and IPP
- Report Requirements
- Summary of IPP Analytical Results
- Discussion of WWTRF Upset, Interference, or Pass-Through
- Significant Industrial Users Summary
- Programs to Reduce Non-Domestic Pollutants
- Changes in Pretreatment Program Operations
- Pretreatment Program Budget
- Summary of Public Information Activities

1.0 OVERVIEW OF WWTRF AND IPP

The WWTRF is located at 1245 Fiddymont Road in Lincoln, California. Currently, the operations, maintenance, and treatment of the wastewater at the WWTRF is done by Stantec under contract with LiSWA. Although all wastewater is treated at the WWTRF, the City and County operate independent IPPs for industrial users within their respective service areas. Since May 2016, all wastewater from the County's Sewer Maintenance District No. 1 (SMD 1) has been conveyed to the WWTRF for treatment and discharge/reuse.

The WWTRF process consists of anoxic basins, followed by oxidation ditches and secondary clarifiers to achieve nitrification and denitrification. Secondary effluent is further treated through granular media filtration and ultraviolet light disinfection. Tertiary treated effluent can be discharged either to the Auburn Ravine Creek, or as recycled water distributed to both on-site and off-site users. Secondary solids are dewatered using a centrifuge, and dried biosolids are hauled offsite for reuse via composting or disposal at a landfill.



2023 IPP Annual Report

The IPPs have identified the following active Significant Industrial User (SIU) dischargers as of 2023:

- One SIU in the City service area: Kracon Aircraft Refinishing (Kracon), which is also a Categorical Industrial User (CIU)
- Two SIUs in the County's SMD 1 service area: Morgan Advanced Materials (Morgan) and Recology Auburn Placer (Recology), with Morgan also being a CIU

The City and County have Industrial Waste Discharge Permits (IWDPs) in place for their respective SIUs, as detailed later in this report.

2.0 REPORT REQUIREMENTS

Reporting Requirement X.D.2 of the NPDES Permit's Monitoring and Reporting Program lists the following requirements for the IPP annual report, referring to the City as the "Discharger":

2. **Annual Pretreatment Reporting Requirements.** *The Discharger shall submit annually a report to the Central Valley Water Board, with copies to U.S. EPA Region 9 and the State Water Board, describing the Discharger's pretreatment activities over the previous 12 months (1 January through 31 December). In the event that the Discharger is not in compliance with any conditions or requirements of this Order, including noncompliance with pretreatment audit/compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.*

Annual reports shall be submitted by the due dates shown in the Technical Reports Table and include at least the following items:

- a. *A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's [Publicly Owned Treatment Works'] influent and effluent for those pollutants U.S. EPA has identified under section 307(a) of the CWA that are known or suspected to be discharged by non-domestic users. This will consist of an annual full priority pollutant scan. The Discharger is not required to sample and analyze for asbestos. The Discharger shall submit the results of the annual priority pollutant scan electronically to the Central Valley Water Board using the State Water Board's CIWQS [California Integrated Water Quality System Project] Program Website.*

Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. The Discharger shall also provide any influent, effluent, or sludge monitoring data for non-priority pollutants that may be causing or contributing to Interference, Pass-Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 C.F.R. part 136 and amendments thereto.



2023 IPP Annual Report

- b. *A discussion of Upset, Interference, or Pass-Through incidents, if any, at the treatment plant, which the Discharger knows or suspects were caused by nondomestic users of the POTW. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the non-domestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass-Through, Interference, or non-compliance with sludge disposal requirements.*
- c. *The cumulative number of non-domestic users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of non-domestic user responses.*
- d. *An updated list of the Discharger's significant industrial users (SIU's) including their names and addresses, or a list of deletions, additions and SIU name changes keyed to a previously submitted list. The Discharger shall provide a brief explanation for each change. The list shall identify the SIU's subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall indicate which SIU's, or specific pollutants from each industry, are subject to local limitations. Local limitations that are more stringent than the federal categorical standards shall also be identified.*
- e. *The Discharger shall characterize the compliance status through the year of record of each SIU by employing the following descriptions:*
 - i. *Complied with baseline monitoring report requirements (where applicable);*
 - ii. *Consistently achieved compliance;*
 - iii. *Inconsistently achieved compliance;*
 - iv. *Significantly violated applicable pretreatment requirements as defined by 40 C.F.R. section 403.8(f)(2)(vii);*
 - v. *Complied with schedule to achieve compliance (include the date final compliance is required);*
 - vi. *Did not achieve compliance and not on a compliance schedule; and*
 - vii. *Compliance status unknown.*
- f. *A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding the SIU's. The summary shall include:*
 - i. *The names and addresses of the SIU's subjected to surveillance and an explanation of whether they were inspected, sampled, or both and the frequency of these activities at each user; and*
 - ii. *The conclusions or results from the inspection or sampling of each industrial user.*



2023 IPP Annual Report

- g. The Discharger shall characterize the compliance status of each SIU by providing a list or table that includes the following information:*
- i. Name of SIU;*
 - ii. Category, if subject to federal categorical standards;*
 - iii. The type of wastewater treatment or control processes in place;*
 - iv. The number of samples taken by the POTW during the year;*
 - v. The number of samples taken by the SIU during the year;*
 - vi. For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;*
 - vii. A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits;*
 - viii. Whether the facility is in significant non-compliance (SNC) as defined at 40 C.F.R. section 403.8(f)(2)(viii) at any time during the year;*
 - ix. A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action (e.g., warning letters or notices of violation, administrative orders, civil actions, and criminal actions), final compliance date, and the amount of fines and penalties collected, if any.*
 - x. Describe any proposed actions for bringing the SIU into compliance;*
 - xi. Restriction of flow to the POTW; and*
 - xii. Disconnection from discharge to the POTW.*
- h. A brief description of any programs the POTW implements to reduce pollutants from non-domestic users that are not classified as SIU's;*
- i. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning: the program's administrative structure, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;*
- j. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases; and*
- k. A summary of activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 C.F.R. section 403.8(f)(2)(viii).*

The Technical Reports Table cited in the introductory paragraph lists a due date of February 28, 2023, for this current annual report.



3.0 SUMMARY OF IPP ANALYTICAL RESULTS

WWTRF influent, effluent, and biosolids samples were collected by Stantec, the contract operator of the WWTRF, on June 28, 2023. The influent and effluent samples were representative, flow proportioned, 24-hour composite samples. Biosolids samples were collected by first creating a pile of discrete dewatered biosolids coming from the centrifuge, taken at approximately 40-minute intervals over a 2-hour period. The biosolids pile was mixed at the end of the 2-hour period. A composite of three samples from the mixed pile was used for analysis. The biosolids processing equipment does not operate continuously, so the sampling was conducted over the duration of processing on this day. Typical operation of the dewatering process occurs for about 6 hours a day, 3 days a week. Dewatered biosolids are directly loaded into hauling trucks so there is no stockpile to sample from. Each sample was analyzed for all priority pollutants, except asbestos, in accordance with Reporting Requirements Item 2.a cited in the previous section. A summary of the analytical laboratories that analyzed the samples is shown in Table 1.

Analyte/Category of Analytes	Influent	Effluent	Biosolids
2,3,7,8-Tetrachlorodibenzo-p-dioxin	Ceres Analytical Laboratory, Inc. ^(a)		Ceres Analytical Laboratory, Inc. ^(b)
Percent Solids	<i>not applicable</i>		FGL Environmental & Agricultural and Eurofins Calscience ^(b)
Mercury	Pace Analytical Services LLC		Zalco Laboratories, Inc. ^(b)
Methyl Mercury			<i>not analyzed</i>
Asbestos	EMSL Analytical, Inc. ^(a)		<i>not analyzed</i>
Cyanide, Total	CLS Labs		Eurofins Calscience ^(a)
Semi-volatile Organic Compounds	McCampbell Analytical, Inc. ^(a)		Zalco Laboratories, Inc. ^(b)
Organochlorine Pesticides	CLS Labs		
All Other Analytes			FGL Environmental & Agricultural
(a) As subcontractor to CLS Labs			
(b) As subcontractor to FGL Environmental & Agricultural			

The full set of 2023 IPP monitoring results for the WWTRF influent, effluent and biosolids is being submitted via CIWQS with this report. The 2023 IPP monitoring sampling results for priority pollutants that were detected in the influent, effluent or biosolids as part of the IPP monitoring are shown in Table 2. The table also indicates whether the detected analytes are known or suspected to be discharged by non-domestic users, as required by the annual reporting requirements, based on monitoring data for the SIUs. Some additional non-priority pollutants were observed in the influent, effluent and biosolids at detectable concentrations; however, the City does not suspect any of these are causing or contributing to interference, pass-through or adversely impacting biosolids quality.



2023 IPP Annual Report

Table 2. Industrial Pretreatment Program 2023 Sampling Results for Detected Priority Pollutants

Analyte	Influent Concentration, micrograms per liter	Effluent Concentration, micrograms per liter	Biosolids Concentration, milligrams per kilogram (dry weight)	Known or Suspected to be Discharged by Non-Domestic Users?
Chloroform	4.0	--	--	Yes
Cyanide	J 1.3	--	--	Yes
Naphthalene	--	0.012	--	Yes
Phenol	J 7.3	--	--	Yes
Toluene	0.86	--	0.0627	Yes
2,4,6-Trichlorophenol	--	J 0.0067	--	Yes
Antimony	J 0.72	J 0.73	2.44	Yes
Arsenic	J 0.27	J 0.54	--	Yes
Cadmium	--	--	1.72	Yes
Chromium (III)	2.3	J 0.89	13.9	Yes
Copper	31	6.2	151	Yes
Lead	1.1	--	4.83	Yes
Mercury	0.0201	J 0.00045	0.524	Yes
Nickel	J 3.3	J 2.4	13.7	Yes
Selenium	--	J 2.1	7.19	Yes
Silver	--	--	4.73	Yes
Thallium	J 0.12	4.1	--	Yes
Zinc	160	13	741	Yes
2,3,7,8-Tetrachloro dibenzo-p-dioxin	J 3.97 x 10 ⁻⁶	J 4.30 x 10 ⁻⁶	J 0.793 x 10 ⁻⁶	Yes

mg/kg = milligrams per kilogram
 "--" indicates a non-detect result.
 "J" indicates the result is an estimated value between the method detection limit and the reporting limit.

4.0 DISCUSSION OF WWTRF UPSET, INTERFERENCE, OR PASS-THROUGH

Upset, interference, and pass-through are defined in Title 40, Code of Federal Regulations (40 CFR) as follows:

- “Upset” is defined in 40 CFR Part 122.41(n)(2) as “an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee.”
- “Interference” is defined in 40 CFR Part 403.3(k) as “a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: (1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and (2) therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II,



2023 IPP Annual Report

more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.”

- “Pass-through” is defined in 40 CFR Part 403.3(p) as “a discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit.”

During 2023, the WWTRF had no upset, interference, or pass-through incidents. There were also no known adverse impacts on WWTRF biosolids quality, and therefore no known adverse impacts caused by non-domestic users of the WWTRF. Accordingly, no additional limitations or changes to existing City and County non-domestic user requirements are needed to prevent upset, interference, or pass-through incidents or non-compliance with the requirements for continued biosolids reuse at a Synagro composting facility and disposal at a landfill.

5.0 SIGNIFICANT INDUSTRIAL USER SUMMARY

This section provides a summary of the existing SIUs within the City and County IPPs, including related inspection and sampling activities in 2023.

5.1 Baseline Monitoring Reports

Baseline Monitoring Reports (BMRs) are required for newly identified Categorical Industrial Users (CIUs). Neither the City nor County identified new CIUs in 2023, so no new BMRs were required in 2023. Therefore, there were no BMR notifications by the City or County in 2023 and no responses to report.

A survey of existing businesses was conducted to identify potential new SIUs in 2023. Three breweries within the service area were inspected by IPP staff but none identified as an SIU. No new SIUs were identified.

5.2 Existing SIUs

Required information for the existing SIUs is summarized in Table 3, including the status of IWDPs issued by the City or County.



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Table 3. Summary of Existing SIUs in 2023

SIU Information	Morgan	Recology	Kracon
Address	13079 Earhart Avenue Auburn, CA 95602	12305 Shale Ridge Rd Auburn, CA 95602	1406 Flightline Drive Suite A, Lincoln CA 95648
Industrial Processes	Technical ceramics manufacture, conducts nickel plating	Solid waste transfer station and closed landfill	Stripping of existing paint and metal coating
Categorical Standard	40 CFR 433 Metal Finishing	None	40 CFR 433 Metal Finishing
Pollutants Subject to Local Limits ^(a)	None		
IWDP Application Received	December 2023	December 2023	April 2019
IWDP Issued	December 23, 2022 ^(b)	March 24, 2019	March 31, 2022
IWDP Expiration Date	April 1, 2024	March 1, 2024	April 1, 2024
(a) Neither the City nor County have local limits specified at this time.			
(b) The IWDP for Morgan was originally issued on April 5, 2019. The County issued a permit amendment on December 23, 2022, reducing the monitoring and reporting frequencies.			

5.3 SIU Compliance Status

The 2023 compliance status of each of the three currently permitted SIUs is summarized in Table 4 for the information required under Reporting Requirements Section 2, Item E.

Table 4. Summary of SIU Compliance Status in 2023

Compliance Question	Morgan	Recology	Kracon
i. Complied with Baseline Monitoring Report Requirements (where applicable)?	Not applicable in 2023. Submitted BMR in 2010.	Not applicable. Not a CIU.	No BMR has been submitted, but baseline monitoring sampling was performed in 2021.
ii. Consistently achieved compliance?	Yes		No – late Self-Monitoring Reports (SMRs) and effluent limit exceedance
iii. Inconsistently achieved compliance?	Not applicable. Consistently achieved compliance.		Yes, TTOs exceedance with Third Quarter 2023 monitoring (due to phenol result)
iv. Significantly violated applicable pretreatment requirements as defined in 40 CFR 403.8(f)(2)(viii)?	No		Yes, consistently late in submitting SMRs
v. Complied with schedule to achieve compliance (include final compliance date required)?	Not applicable. SIU not subject to a compliance schedule.		No, as of December 2023. Follow-up action taken by City in January 2024.
vi. Did not achieve compliance and not on a compliance schedule?	Not applicable. Consistently achieved compliance.		Not applicable. SIU on a schedule.
vii. Compliance status unknown?	Not applicable. Compliance status known.		



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5.4 Inspection and Sampling Activities

Pretreatment program inspection and sampling activities for the active SIUs are summarized in Table 5 for the information required under Reporting Requirements Section 2, Item F.

Inspection Item	Morgan	Recology	Kracon
Facility address	13079 Earhart Avenue, Auburn, CA 95602	12305 Shale Ridge Road, Auburn, CA 95602	1406 Flightline Drive Suite A, Lincoln CA 95648
Inspected by IPP staff?	Yes		
Inspection frequency	Annual		
Sampled by IPP staff?	Yes		
Sampling frequency	Annual		
Results	Inspection and lab analysis both indicated compliance with the respective IWDP. ^(a)		
(a) The Kracon facility does have items of non-compliance, as addressed elsewhere, but none are specific to the 2023 inspection.			

5.5 Additional Compliance Information

Additional 2023 compliance information required under Reporting Requirements Section 2, Item G is summarized in Table 6 for the SIUs.

Compliance Question	Morgan	Recology	Kracon
ii. Category (if applicable to federal categorical standards)?	40 CFR 433 Metal Finishing	Not applicable. Non-categorical user.	40 CFR 433 Metal Finishing
iii. Type of wastewater treatment or control processes in place?	Uses baffled sumps to settle alumina particles and recirculates most nickel-plating rinse water	Uses oil/water separators at transfer station and vehicle wash area	Uses sedimentation tanks that collect all runoff from paint stripping area
iv. Number of samples taken by Pretreatment Program during the year?	One 24-hour composite and one grab sample and field measurements		Two grab composite and field measurements
v. Number of samples taken by SIU during the year?	4		3 ^(a)
vi. Were all required Total Toxic Organic (TTO) Certifications provided?	Yes, TTO certification provided with each self-monitoring report.	Not applicable. TTO certifications not required.	Not applicable. TTO certifications not accepted in lieu of monitoring.
vii. What standards were violated during the year?	None		SMR sampling indicated a TTO effluent limit exceedance in 2023 and incomplete TTO monitoring
viii. Was facility in Significant Noncompliance as defined in 40 CFR 403.8(f)(2)(vii)?	No		Yes, due to missed monitoring and late submittal of SMRs



2023 IPP Annual Report

Table 6. Additional SIU Information for 2023 (continued)

Compliance Question	Morgan	Recology	Kracon
ix. What actions were taken during the year to return the SIU to compliance?	Not applicable. No actions were required.		See Appendix A for enforcement actions taken in 2023.
x. Proposed actions for bringing the SIU into compliance?			The City is continuing to work with the SIU to bring them into compliance and escalating enforcement actions as needed.
xi. Were the SIU flows to the WWTRF restricted?	No		
xii. Was the SIU disconnected from the WWTRF?			
(a) Kracon provided results of January 2024 monitoring in February 2024 as the Fourth Quarter 2023 result.			

6.0 PROGRAMS TO REDUCE NON-DOMESTIC POLLUTANTS

The City and County participate and contribute to the Live Sewer Smart regional outreach program, in cooperation with the Cities of Auburn, Roseville and Colfax and the South Placer Municipal Utility District. The Live Sewer Smart program serves to educate and encourage users on proper ways of reducing impacts to the sewer system, including the appropriate disposal of fats, oils, and grease (FOG). The program also notifies customers of free FOG pick-up services and nearby drop-off locations for convenient/safe disposal.

7.0 CHANGES IN PRETREATMENT PROGRAM OPERATIONS

No significant changes in pretreatment program operations occurred in 2023. Both the City and County have a contract with an engineering consultant to support the implementation of the IPP. In 2022, the WWTRF management had been modified under a new Joint Powers Agreement, but the IPP consulting remained under two separate contracts through 2023.

8.0 PRETREATMENT PROGRAM BUDGET

The combined budget for City and County pretreatment program activities in 2023 was \$100,000, split as \$80,000 for County activities and \$20,000 for City activities. About half these funds are intended to cover the consulting engineering services; the County’s budget also includes \$50,000 to cover County staff time for contracting and annual inspection monitoring, as well as analytical testing costs.

9.0 SUMMARY OF PUBLIC INFORMATION ACTIVITIES

No public information activities were conducted in 2023, except a newspaper notice was published in March 2023 for Kracon, as required by 40 CFR 403.8(f)(2)(viii), to report significant non-compliance in 2023. A proof of publication of this notice is provided in Appendix B to this report.

Appendix A

List of Enforcement Actions



Appendix A

List of Enforcement Actions

The City, including the City's consultant, took several enforcement actions in 2023 with regard to Kracon non-compliance with their IWDP. The following actions taken in 2023 followed several email and phone calls completed in 2022 regarding some overlapping items of non-compliance:

- **January 17, 2023:** Emailed Kracon staff, following up on December 9, 2022 email to Kracon staff requesting TTO monitoring and providing an SMR template to help ensure Kracon provides complete SMRs. Also called Kracon staff with similar request but had to leave a voicemail.
- **January 20, 2023:** Emailed Kracon staff following up on January 17 correspondence and notifying of annual site inspection visit on January 30 or 31.
- **February 1, 2023:** Forwarded prior email to Kracon staff with SMR template.
- **February 2, 2023:** Conducted site inspection and discussed non-compliance items, including outstanding SMR submittals and self-monitoring sampling, including for TTOs.
- **February 10 and 27, 2023:** Emailed Kracon staff as follow up on recent site visit discussion on completing SMRs.
- **March 22, 2023:** Issued letter of non-compliance to Kracon requesting additional monitoring be conducted and SMR be submitted by April 30, 2023.
- **March 23, 2023:** City staff had a telephone discussion with Kracon staff as follow-up to non-compliance letter.
- **March 28, 2023:** City and West Yost staff met at the Kracon facility with Kracon staff to discuss information needed to come into compliance. The original compliance date was retained of April 30, 2023.
- **March 30, 2023:** Published notice of significant non-compliance in local newspaper (see Appendix B).
- **May 11, 2023:** Provided Kracon link to City website that provides water consumption data (for reporting estimated discharge flows to City sewer).
- **June 6, 2023:** Emailed Kracon staff with noted deficiencies in Second Quarter 2023 SMR submitted on May 12, 2023.
- **June 6, 2023:** Called Kracon staff, leaving a voicemail, to follow up on June 6 email.
- **June 9, 2023:** Emailed Kracon staff to follow up on June 6 email.
- **November 16, 2023:** Conducted annual SIU inspection and relayed continued concerns with compliance.
- **November 27, 2023:** Emailed Kracon staff, following up on November 16 discussion during annual inspection, requesting Kracon to complete required effluent limit exceedance follow-up action items. The last of four action items requires submittal of a report within 5 days of becoming aware of the non-compliance, which would be by December 1, 2023.
- **December 8, 2023:** Emailed Kracon staff, following up on November 27 email, requesting confirmation of prior email receipt and submittal of the required report "as soon as possible."

In addition, a follow-up letter was issued on January 25, 2024, from the City to Kracon requesting repeat sampling for the elevated TTO result from Kracon's Third Quarter 2023 self-monitoring.

No fines were assessed on Kracon in 2023.

Appendix B

Proof of Publication

100603

LEGAL NOTICE

100603

Public Notification

In accordance with the requirements of the City of Lincoln's (City) Industrial Pretreatment Program, the City is required to publish an annual list of any Industrial Users, which at any time during the previous twelve months were in Significant Noncompliance (as defined in Lincoln Municipal Code Section 13.08.896). Kracon Aircraft Refinishing was found to be in Significant Noncompliance in the last twelve months. Kracon Aircraft Refinishing failed to conduct monitoring and reporting as required by its Industrial Waste Discharge Permit.
PUBLISHED IN THE LINCOLN NEWS MESSENGER: MARCH 30, 2023.

The above space is reserved for Court/County Filed Date Stamp

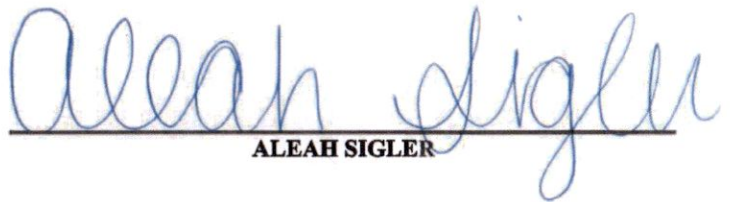
**PROOF OF PUBLICATION
(2015.5 C.C.P.)**

**STATE OF CALIFORNIA
County of Placer**

I am a citizen of the United States and employed by a publication in the County aforesaid. I am over the age of eighteen years, and not a party to the mentioned matter. I am the principal clerk of **The Lincoln News Messenger**, a newspaper of general circulation, in the **City of Lincoln**, which is printed and published in the **County of Placer**. This newspaper has been judged a newspaper of general circulation by the Superior Court of the State of California, in and for the **County of Placer**, on the date of November 13, 1951, (Case Number 16996). The notice, of which the attached is a printed copy (set in type not smaller than nonpareil) has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

MARCH 30

I certify, under penalty of perjury, that the foregoing is true and correct.



ALEAH SIGLER

Dated in Lincoln, California

MARCH 30, 2023.

**PROOF OF PUBLICATION
LINCOLN NEWS MESSENGER**

Concord

1001 Galaxy Way, Suite 310
Concord CA 95420
925-949-5800

Davis

2020 Research Park Drive, Suite 100
Davis CA 95618
530-756-5905

Lake Forest

23692 Birtcher Drive
Lake Forest CA 92630
949-420-3030

Lake Oswego

5 Centerpointe Drive, Suite 130
Lake Oswego OR 97035
503-451-4500

Oceanside

804 Pier View Way, Suite 100
Oceanside CA 92054
760-795-0365

Phoenix

4505 E Chandler Boulevard, Suite 230
Phoenix AZ 85048
602-337-6110

Pleasanton

6800 Koll Center Parkway, Suite 150
Pleasanton CA 94566
925-426-2580

Sacramento

8950 Cal Center Drive, Bldg. 1, Suite 363
Sacramento CA 95826
916-306-2250

San Diego

11545 West Bernardo Court, Suite 209
San Diego CA 92127
858-505-0075

Santa Rosa

2235 Mercury Way, Suite 105
Santa Rosa CA 95407
707-543-8506

March 2024 WWTRF Operations Report

4-12-24

Highlights

- 187.662 Million Gallons (MG) of influent, 2.101 MG was sent to reclamation and 142.727 MG of effluent flow was sent to Auburn Ravine.
- Influent Pump 1B was repaired under warranty and put back in service on February 28th. It is still running well. If it is still holding up well a new impellor should be ordered in the next budget cycle as it is operating about 22% below capacity.
- As of March 14th, the County has taken full operational responsibility for the SMD1 Pump Station and Regional Pipeline.
- Filter Feed Pump #2 failed during a recent rain event. After analysis we found the motor needs to be either rewound or replaced. Further pump analysis is being performed to determine if a full pump replacement is warranted.
- Outfall control valve was repaired and put back in service 4-1-24. See Photo 1.
- Added Clarifier pH probe to improve Oxidation Ditch pH monitoring.
- Working on the new budget and getting bids for a condition assessment of the LiSWA gravity sewer.
- Justin Gregory (Operations Supervisor) celebrated 20 years of excellent service at the LiSWA WWTRF.

Compliance

- Our contract lab missed running the daily coliform sample due to a power failure at their laboratory. All required notifications have been made. Enforcement by the Regional Board is discretionary and it is very unlikely a fine will be assessed as it is not reoccurring in nature.
- The first quarter chronic *Ceriodaphnia dubia* Whole Effluent Toxicity (WET) testing result passed for survival but failed on the reproduction portion of the test. The first retest passed and the second retest is currently under way. There are no fines associated with these failures but retests cost about \$2200 and multiple failures could result in expensive studies to determine the cause.

Major Equipment Out of Service

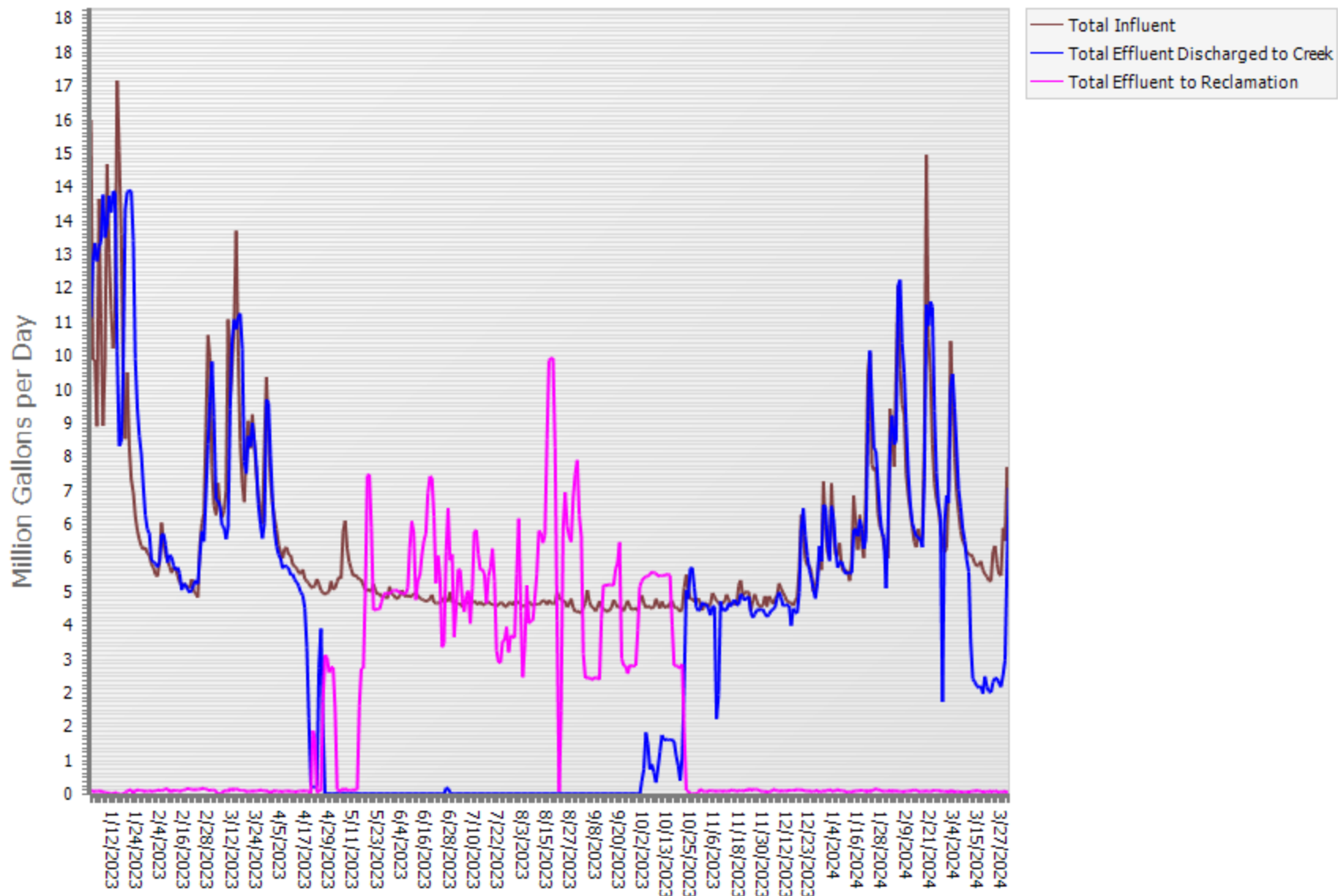
Equipment	Failure Date	Redundancy	Problem	Solution	Estimated Repair Cost	Estimated Return to Service Date
Centrifuge #1 Blended Polymer Flow Meter	2/5/24	1 of 2	Erratic readings >20% error	Replace meter and it's like kind meter for Centrifuge #3 proactively	Reduced from \$65,000 to \$25,000	4-30-24
Centrifuge #1 Solids Feed Flow meter	2-27-24	1 of 2	Meter has failed	Replace meter and it's like kind meter for Centrifuge #3 proactively		4-30-24
Warm Springs sump #2	3-18-24	1 of 1	Transformer failed	Replacing transformer	\$1000	4-10-24
Filter Feed Pump #2	3-25-24	1 of 4	Motor windings are broken down. Fails in wet weather.	Replace motor and pump to increase capacity.	TBD	TBD



Photo 1.

LiSWA WWTRF Operation and Maintenance Budget FY 2023-2024 Report Month: February		Current Period			Project to Date				Project to Date Total Annual Budget			
Month: # 8	Actual	Budgeted	Variance	Actual	Budgeted	Variance	% Budget	Actual	Budgeted	Budget Remaining	% Budget	
DIRECT PERSONNEL (Stantec O&M Labor)												
Reg Labor Direct (223.000)	241076.50	249255.25	-8178.75	1941441.00	1994042.00	-52601.00	97%	1941441.00	2991063.00	1049622.00	65%	
Over Time (223.001)	5255.00	4166.67	1088.33	18943.25	33333.33	-14390.08	57%	18943.25	50000.00	31056.75	38%	
Standby Pay (223.006)	1848.00	1975.00	-127.00	16632.00	15800.00	832.00	105%	16632.00	23700.00	7068.00	70%	
R&R Labor(223.007)		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		
DIRECT PERSONNEL (Stantec Labor)												
Groundwater Testing Labor (223.004)	0.00	916.67	-916.67	7937.50	7333.33	604.17	108%	7937.50	11000.00	3062.50	72%	
Permit, Planning & Reporting Eng Services (223.003 & 223.003.1 & 223.003.2 & 223.003.3 & 223.003.4)	23680.85	8333.33	15347.52	69622.00	66666.67	2955.33	104%	69622.00	100000.00	30378.00	70%	
Sub Total	271,860.35	264,646.92	7,213.43	2,054,575.75	2,117,175.33	62,599.58	97%	2,054,575.75	3,175,763.00	1,121,187.25	65%	
WWTRF DIRECT EXPENSES												
Operating Supplies	846.07	1916.67	-1070.60	8123.60	15333.33	-7209.73	53%	8123.60	23000.00	14876.40	35%	
Maintenance Supplies	2003.58	2083.33	-79.75	13559.49	16666.67	-3107.18	81%	13559.49	25000.00	11440.51	54%	
Chemicals	59922.66	41666.67	18255.99	451152.81	333333.33	117819.48	135%	451152.81	500000.00	48847.19	90%	
Laboratory Supplies	371.89	666.67	-294.78	5184.35	5333.33	-148.98	97%	5184.35	8000.00	2815.65	65%	
Outside Lab Services	357.00	6666.67	-6309.67	36856.76	53333.33	-16476.57	69%	36856.76	80000.00	43143.24	46%	
Safety Supplies	104.35	416.67	-312.32	5699.47	3333.33	2366.14	171%	5699.47	5000.00	-699.47	114%	
Repair Parts	13890.50	20833.33	-6942.83	131027.85	166666.67	-35638.82	79%	131027.85	250000.00	118972.15	52%	
Outside Services	62997.91	29166.67	33831.24	316467.77	233333.33	83134.44	136%	316467.77	350000.00	33532.23	90%	
Equipment Rental-Outside	4705.38	125.00	4580.38	4705.38	1000.00	3705.38	471%	4705.38	1500.00	-3205.38	314%	
Telephone	450.00	416.67	33.33	2800.00	3333.33	-533.33	84%	2800.00	5000.00	2200.00	56%	
Postage & Freight	32.45	83.33	-50.88	419.99	666.67	-246.68	63%	419.99	1000.00	580.01	42%	
Vehicle Expense/Mileage	929.15	125.00	804.15	6087.37	1000.00	5087.37	609%	6087.37	1500.00	-4587.37	406%	
Utilities/Plant Diesel Fuel	28386.38	666.67	27719.71	31853.05	5333.33	26519.72	597%	31853.05	8000.00	-23853.05	398%	
Uniform Expense	1513.34	1500.00	13.34	13269.87	12000.00	1269.87	111%	13269.87	18000.00	4730.13	74%	
Tools	338.72	250.00	88.72	419.13	2000.00	-1580.87	21%	419.13	3000.00	2580.87	14%	
Taxes & Licenses	0.00	750.00	-750.00	205.50	6000.00	-5794.50	3%	205.50	9000.00	8794.50	2%	
Training	0.00	500.00	-500.00	0.00	4000.00	-4000.00	0%	0.00	6000.00	6000.00	0%	
Computer Expense	0.00	291.67	-291.67	-0.05	2333.33	-2333.38	0%	-0.05	3500.00	3500.05	0%	
Ground Water Monitoring	0.00	1500.00	-1500.00	7741.00	12000.00	-4259.00	65%	7741.00	18000.00	10259.00	43%	
Biosolids Disposal	94744.08	66666.67	28077.41	554564.37	533333.33	21231.04	104%	554564.37	800000.00	245435.63	69%	
Membership & Certificates	0.00	416.67	-416.67	0.00	3333.33	-3333.33	0%	0.00	5000.00	5000.00	0%	
UV Maintenance		8333.33	-8333.33	52915.94	66666.67	-13750.73	79%	52915.94	100000.00	47084.06	53%	
R&R Outside Labor and Expenses (223.007)	0.00	57083.33	-57083.33	395078.38	456666.67	-61588.29	87%	395078.38	685000.00	289921.62	58%	
Contingency	0.00	8333.33	-8333.33	1247.61	66666.67	-65419.06	2%	1247.61	100000.00	98752.39	1%	
Sub Total	271,593.46	250,458.33	21,135.13	2,039,379.64	2,003,666.67	35,712.97	102%	2,039,379.64	3,005,500.00	966,120.36	68%	
WWTRF Total	\$ 543,453.81	\$ 515,105.25	28,348.56	\$ 4,093,955.39	\$ 4,120,842.00	-26,886.61	99%	\$ 4,093,955.39	\$ 6,181,263.00	\$ 2,087,307.61	66%	

Total Treatment Plant Flow





Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting

Agenda Item #5

SUBJECT: Old Business - Wastewater Treatment and Reclamation Facility PLC Replacements

Programmable Logic Controllers (PLC)

We brought this item to the Board last month and the Board requested some additional research. WWTRF staff purchased one controller and completed a pilot test of the replacements. The test was successful, and the process is attached to this memo. Staff had determined just before the last meeting that some equipment was not necessary with the upgraded PLC's so the anticipated cost at that time was about \$165,000. Staff also searched for additional quotes and found a reseller that has surplus, factory sealed Allen-Bradley components with a two-year warranty for less cost. This company sells equipment to Ford and Coca Cola. The two quotes attached are for the replacements and the "on the shelf" recommended back up components in a total amount just under \$82,000 with tax. While the quotes show they are expired, we have email confirmation the price will hold until the Board makes a decision. Also attached is the replacement process established and proven correct by staff.

We have had issues with some failing PLC's and we have some controllers that are obsolete. The plan was to replace and upgrade these units with the WWTRF improvement project. Gary Hengst recommends we move forward with the replacements now and the WWTRF staff can do the work. Once purchases they are property of LiSWA so the potential change in operators should not impact moving forward.

The perspective operators visited the plant and met with staff. They agreed that the replacements made sense as the only other option is to replace the entire SCADA system at a much higher cost.

By doing these replacements with staff, we save the cost of adding the equipment to the electrical and instrumentation drawings and specifications as well as the potential contractor markups and installation costs.

Staff Recommendation:

"Approval to add \$82,000 to the LiSWA Capital Projects budget and amend the Stantec budget in an equal amount."

Industrial Automation Co.

544 Pylon Drive
Raleigh, NC 27606
United States

T: 877-727-8757
F: 919-336-4357

Prepared for Stantec
Danny Rivas
United States

T: (805) 696-3627
E: Danny.Rivas@stantec.com

Quote #	70937
Date	04/01/2024
Expires	04/08/2024
Contact	Kadison Clarke

BUY NOW

Allen Bradley RFQ

Item	Qty	Price	Total
Allen Bradley 1756-EN2T - Surplus Original Box In Stock - Can Ship Today	2	\$1,672.00	\$3,344.00
Allen Bradley 1756-DNB - Surplus Original Box 1 - 2 Week Lead Time	1	\$425.00	\$425.00
Allen Bradley 1756-CNB - Surplus Original Box 1 - 2 Week Lead Time	1	\$255.00	\$255.00
Allen Bradley 1756-DHRIO - Surplus Original Box 1 - 2 Week Lead Time	1	\$522.00	\$522.00
Allen Bradley 1756-IF16 /A - Surplus Original Box In Stock - Can Ship Today	2	\$898.00	\$1,796.00
Allen Bradley 1756-IF8 /A - Surplus Original Box In Stock - Can Ship Today	2	\$604.00	\$1,208.00
Allen Bradley 1756-OF8 /A - Surplus Original Box In Stock - Can Ship Today	2	\$1,193.00	\$2,386.00
Allen Bradley 1756-IA16 - Surplus Original Box 1 - 2 Week Lead Time	4	\$450.00	\$1,800.00
Allen Bradley 1756-OW16I - Surplus Original Box 1 - 2 Week Lead Time	2	\$498.00	\$996.00

One-Time Subtotal **\$12,732.00**

Shipping

Item	Qty	Price	Total
Free UPS Ground Shipping*	1	\$0.00	\$0.00
<input type="checkbox"/> Over Night Shipping <i>Optional</i>	1	\$160.00	Not Selected
<input type="checkbox"/> Customer Shipping Account Info (Please add info on the notes section) <i>Optional</i>	1	\$0.00	Not Selected

Please select this option if you have a UPS or FedEx account number.

One-Time Subtotal **\$0.00**

Summary

Please contact us if you have any questions.

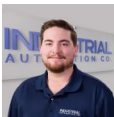
Total One-Time **\$12,732.00 USD**

BUY NOW

Cost Breakdown

Category	One-Time Fees
Shipping	—
Product	\$12,732.00
Total	\$12,732.00 USD

Please contact me if you have any questions:



Kadison Clarke
Inside Sales Representative



877-727-8757 ext.712
kclarke@iac.us.com

iac.us.com
544 Pylon Drive
Raleigh, NC
27606

Shipping & Warranty 2 Year Warranty.

Our same-day shipping cutoff is 4 PM Eastern.

* Free UPS Ground Shipping for Items Under 50 Pounds.

If you require expedited shipping needs, please contact me [877-727-8757](tel:877-727-8757) Ext 2

Payment & Terms

All major credit cards are accepted.

We offer NET 30 terms for established companies.

Accommodations can be made for Wire Transfer payments, 3% discount if ACH payment is applied.

All sales are bound by these [Terms and Conditions](#).

Industrial Automation Co.
544 Pylon Drive
Raleigh, NC 27606
United States

T: 877-727-8757
F: 919-336-4357

Prepared for Stantec
Danny Rivas
United States

T: (805) 696-3627
E: Danny.Rivas@stantec.com

Quote #	71060
Date	04/02/2024
Expires	04/09/2024
Contact	Kadison Clarke

BUY NOW

Allen Bradley RFQ

Item	Qty	Price	Total
Allen Bradley 2080-L50E-24AWB - Surplus Original Box 1 - 2 Week Lead Time (For All Line Items)	6	\$471.00	\$2,826.00
Allen Bradley 2080-L50E-24QWB - Surplus Original Box	2	\$473.00	\$946.00
Allen Bradley 2080-PS120-240VAC - Surplus Original Box	8	\$98.00	\$784.00
Allen Bradley 2080-IF4 - Surplus Original Box	4	\$200.00	\$800.00
Allen Bradley 1756-L81E - Surplus Original Box	13	\$4,950.00	\$64,350.00
End of Month 10% off	1	(\$6,970.60)	(\$6,970.60)

One-Time Subtotal	\$69,706.00
Discount	(\$6,970.60)

Shipping

Item	Qty	Price	Total
Free UPS Ground Shipping*	1	\$0.00	\$0.00
<input type="checkbox"/> Over Night Shipping <i>Optional</i>	1	\$165.00	Not Selected
<input type="checkbox"/> Customer Shipping Account Info (Please add info on the notes section) <i>Optional</i>	1	\$0.00	Not Selected

Please select this option if you have a UPS or FedEx account number.

One-Time Subtotal	\$0.00
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Summary

Please contact us if you have any questions.

One-Time Subtotal	\$69,706.00
Discount	(\$6,970.60)
Total One-Time	\$62,735.40 USD

BUY NOW

Cost Breakdown

Category	One-Time Fees
Shipping	—
Product	\$69,706.00
Discount	(\$6,970.60)
Total	\$62,735.40 USD

Please contact me if you have any questions:



Kadison Clarke
Inside Sales Representative



877-727-8757 ext.712
 kclarke@iac.us.com

iac.us.com
544 Pylon Drive
Raleigh, NC
27606

Shipping & Warranty
2 Year Warranty.

Our same-day shipping cutoff is 4 PM Eastern.

* Free UPS Ground Shipping for Items Under 50 Pounds.

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Payment & Terms

All major credit cards are accepted.

We offer NET 30 terms for established companies.

Accommodations can be made for Wire Transfer payments, 3% discount if ACH payment is applied.

All sales are bound by these [Terms and Conditions](#).

Upgrading an L55 Processor to an L81

1. Upload program from L55 Processor to be upgraded.
2. Go offline and change program Controller to the L81 type and firmware revision to be used.
3. Identify and resolve any Program Conversion Errors (PCE) when conversion finishes.
4. Set aside for now.
5. Remove L55 Processor and insert L81 Processor into the chassis
6. Flash upgrade the L81 Processor to desired firmware you declared in Step 2.
7. Download converted program into the L81 Processor including configuration of onboard Ethernet port.
8. Put program in Run Mode and set internal Processor Time of Day (TOD).
9. Verify I/O cards ownership, program execution, communications and data collection to SCADA.



Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting

Agenda Item #5

SUBJECT: Consider the cancellation of the July 2024 Board meeting and set a Special Meeting on a date to be chosen by the Board.

Director Andreatta has a conflict for the July Board meeting. This agenda item provides the option to cancel the regular meeting and set a special meeting date. Another option is to ask the alternate Council Member Joiner to sit in.

Staff Recommendation:

“Cancellation of the July 2024 Regular Board meeting and setting a special meeting on _____.”



Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting
Agenda Item #7
SUBJECT: WWTRF Improvement Project UV Options

We have been working with the Design staff at Stantec on the best option for Ultraviolet Disinfection replacement at the WWTRF. The current model is still available, with some minor upgrades. We wanted to determine if it was the best course of action to take this time to upgrade to a newer model moving forward.

Are current system is a Wedeco TAK55 and the system needs to be replaced as it is 20 years old. Also, in the improvement project the plan is to install equipment in all of the constructed channels to match the new filter capacity after the project.

We looked at Wedeco's Duron 6 and Trojan's UV 3000Plus as potential upgrades to the current. There are a lot of factors that were considered including the fact that either of the upgrades would require a channel modification at an additional cost.

The results are included in the attached memo from Stantec. We could not justify the additional cost even factoring employee safety and failure risk. One of the benefits of the upgrades is ease of servicing the lamps. The current process requires lifting the equipment out of the channel and the winds experienced causes concerns at times and we can't always schedule around the wind.

Our recommendation is to replace the UV with the same TAK55 model we have, but include some walls around the roof structure to mitigate the wind issues.

Staff Recommendation:

“Direct Stantec to plan for replacement of the UV system with the same model and include walls as appropriate around the roof structure.”



Stantec Consulting Services, Inc.
2250 Douglas Boulevard, Suite 260, Roseville, CA 95661

March 22, 2024
File: 184031798

Attention: George Barber PE, LiSWA General Manager
gbarber@westyost.com

Dear Mr. Barber,

Reference: WWTRF UV Upgrade Options

The current Phase 1 improvement project includes replacing the existing WWTRF UV disinfection equipment, which is 20 years old and near the end of its useful life. The current plan is to replace the aged equipment with new in-kind equipment. However, in developing the design for this upgrade, and conferring with plant operators and UV equipment vendors, it is apparent that there are new, more operator friendly options available since the original system was installed. We'd like to bring two apparent best options to your attention and request confirmation of the current in-kind replacement plan, or for direction to consider a change to a more modern system.

The current UV equipment is produced by Wedeco and is the TAK55 model. This is an older model, though it is effective, and continues to be maintained and supported by the manufacturer with new versions of the same equipment. Wedeco offers a newer equipment model called the Duron 6 that is a simpler arrangement and allows for easy removal of individual lamps and general system service. The Duron 6 equipment itself is less expensive than new TAK55 equipment, but it requires removal and rebuilding of the existing concrete channels, significantly increasing its total capital costs. An alternative upgrade is also possible using the Trojan (different manufacturer) 3000Plus model. The 3000Plus equipment is more expensive than the Duron 6 equipment and also requires channel modifications, though the modifications are less extensive than for the Duron 6. Like the Duron 6 system, the Trojan 3000Plus system offers modern design operational advantages.

Please refer to the attached Table 1 summarizing the equipment costs, capital costs, and operation and maintenance costs for the in-kind Wedeco TAK55 replacement, the new Wedeco Duron 6 system and the new Trojan 3000Plus system. The table also lists additional functional and practical factors for each system for comparison. It can be seen in this table that strictly looking at capital costs, replacing the existing TAK55 system is the most cost effective, without considering operational benefits of the newer systems. There is significant budget refinement that can occur for the demolition and new channel work required for the Duron 6 and 3000Plus systems, but even if these estimates are off by 50%, they still have a higher capital cost than the TAK55 system.

The operation and maintenance (O&M) costs presented in Table 1 are also lowest for the TAK55 system. It should be noted that the O&M costs for each system are for electricity and expected service parts and lamp replacement costs as provided by the manufacturers. The manufacturer O&M costs may be low, as they favorably project their own service needs. However, it is anticipated that this trend applies to each system and therefore results in a relatively accurate O&M projection for comparison. In reality, it is known that additional operator attention and monitoring is required for each system than presented. For example, far

Reference: WWTRF UV Upgrade Options

more operator attention is required of the existing TAK55 system than presented here, though it is an aged system. It is anticipated that a new upgraded TAK55 system will incur reduced operator attention in contrast to existing expenditures, and that that operator attention will be even less for the new Duron 6 and 3000Plus systems, though the reduction in operator attention for these newer systems is difficult to quantify.

The decision to replace the TAK55 system or upgrade to a newer system based on costs will favor the TAK55 upgrade. Alternatively, if there's a preference to embrace a newer technology moving into the future, the Duron 6 system is recommended and the 3000Plus system is also a good option. Operations staff prefer the Duron 6 option from a maintenance perspective.

To procure these systems in accordance with Public Contract Code (PCC), replacing the TAK55 system is simple. PCC allows LiSWA to sole-source new equipment to match existing equipment without competitive bidding. To ensure good pricing, LiSWA can negotiate directly with the vendor or manufacturer to an agreed-to price and then build that price into the bid documents.

To procure the Duron 6 or 3000Plus systems, PCC requires competitive selection. Due to the uniqueness of each system (they each require different structural, electrical and mechanical infrastructure), it is undesirable to design a generic UV system and name multiple manufactures and "or equal" manufacturers, and let the Contractor provide the lowest bidder. This adds uncertainty to an important disinfection process, takes control away from LiSWA as to the final product they will receive, and can result in confusion and change orders during construction, as the Contractor has to customize the design to match the equipment they bid. Therefore, it is recommended to preselect the equipment with a performance specification and bid, allowing vendors to competitively submit proposals for their product. Then, with the equipment pre-selected, the infrastructure design can proceed around the details of that specific equipment. The actual purchase can be made directly by LiSWA, or the pre-selected equipment (and quote) can be included in the improvement project bid documents for the Contractor to procure and deliver with the overall project. A risk to preselection per PCC is the requirement to allow "or qual" equipment to bid, which may result in selection of unanticipated equipment.

Please let us know if you have any questions about this information and provide direction as to how to proceed, either with the in-kind replacement of the Wedeco TAK55 system, or pre-selection of alternative equipment.

Regards,

Stantec Consulting Services, Inc.



Gabe Aronow PE

Principal

Phone: 530-913-9197

Gabe.aronow@stantec.com

Attachment: Table 1 - LiSWA WWTRF UV System Alternative Analysis
c. Gary Hengst, CPO, Kelly Valencia, Stantec

Table 1 - LiSWA WWTRF UV System Alternative Analysis 20-Year Present Worth ⁽¹⁾

Improvement	Wedeco TAK55 ⁽²⁾	Wedeco Duron 6 ⁽³⁾	Trojan UV 3000Plus ⁽⁴⁾
Wedeco Equipment Removal	\$100,000	\$100,000	\$100,000
Channel Demolition	-	\$1,000,000	-
Equipment Capital ⁽⁵⁾	\$3,051,000	\$2,138,000	\$3,552,000
Equipment Installation (50% of Capital Cost)	\$1,513,000	\$1,070,000	\$1,776,000
New Channel Construction	-	\$3,000,000	\$2,000,000
Total Capital Costs	\$4,664,000	\$7,308,000	\$7,428,000
20-year O&M Present Worth ⁽⁶⁾⁽⁷⁾	\$1,730,000	\$2,220,000	\$2,450,000
20-year O&M \$/gallon treated ⁽⁶⁾⁽⁷⁾	\$0.29	\$0.37	\$0.41
Total 20-Year Present Worth	\$6,390,000	\$9,530,000	\$9,880,000

Additional System Factors

Channels	-Able to use existing channels without structural modification.	-Requires demolition of existing interior walls and reconstruction of new channels.	-Requires modifications of channels to reduce width.
Equipment	-Replacement in-kind (operators already familiar with equipment).	-All equipment and controls are new.	-All equipment and controls are new.
Chemicals	-None	-None	-Addition of chemical cleaning requirements.
Cleaning	-Mechanical (pneumatic). Compressor creates potential single point of failure risk.	-Mechanical (electric).	-Mechanical (hydraulic) and chemical. Hydraulic pump creates potential single point of failure risk.
Lamp Access	-Lamp modules can be lifted individually using a crane or all together in the bank magazine. -Module must be removed to remove individual lamps.	-Automatic mechanism lifts an individual module, while other modules remain in service. -Lamps can be removed without removing the modules.	-Lamps and sleeves are preassembled, facilitating maintenance, with o-rings and seals permanently built-in, preventing problems with reassembly and water leaks.
Lamp Count	-Total lamps: 1,080.	-Total lamps: 432	-Total lamps: 1,152.
Lamp Life	Up to 14,000 hours (reflected in O&M costs above).	Up to 14,000 hours (reflected in O&M costs above).	Up to 12,000 hours (reflected in O&M costs above).
Channel Impact During Lamp Service	Off-line	On-line	On-line
Overhad Crane	-Required. Can be difficult to operate in inclement weather.	-Not required	-Required. Can be difficult to operate in inclement weather.
Lamp Replacment Relative Effort	Hardest	Easiest	Moderate
Ballast Location	-In control building with AC. Indoor setting improves serviceability. AC dependence is a risk.	-In control building with AC. Indoor setting improves serviceability. AC dependence is a risk.	-Outdoors above the channel. Reduces need, and liability, for AC. -Makes service in inclement weather difficult. -Reduced AC dependence reduces risk. -Outdoor rated ballast cards simplify replacement.
Overall System Relative Complexity	High	Low	Moderate/High
Installation Disruption	Low	High	Moderate

- This is a high-level analysis presenting equipment capital costs provided by UV manufacturers (9% tax was applied to all equipment capital costs), estimated O&M costs (using information provided by manufacturers), and estimate of channel construction costs (currently judgement based placeholder values). Nonmonetary items related to operational advantages or disadvantages are not quantified (though same major items are noted herein), but are important and should be considered.
- TAK55 has a design capacity of 22.6 MGD and includes 6 channels, with 5 banks/channel (including 1 redundant), 3 modules/bank, and 12 lamps/module for a total of 1,080 lamps. No channel modifications are needed for the TAK55 system. Final capacity and costs will depend on Division of Drinking Water approved water design UV Transmittance (UVT), lamp Fouling Factor (FF), and End of Lamp Life (EOLL) values.
- Duron 6 design has a design capacity of 19.6 MGD and includes 4 channels, with 9 banks/channel (including 1 redundant bank in each channel), and 12 lamps/bank for a total of 432 lamps. The width of the existing channels would be increased by demolishing and rebuilding the interior walls. Final capacity and costs will depend on Division of Drinking Water approved design UVT, FF, and EOLL.
- UV3000Plus design has a design capacity of 21.3 MGD and includes 6 channels, with 4 banks/channel (including 1 redundant bank in each channel), 6 modules/bank, and 8 lamps/module for a total of 1152 lamps. The width of the existing channels would be decreased. Final capacity and costs will depend on Division of Drinking Water approved design UVT, FF, and EOLL.
- Capital costs are based on quotes for half a system, reflecting the original assignment to replace one half of the system at a time. The costs shown are for the full system and the original quotes are doubled. Economies of scale may exist that are not incorporated here.
- The 20-year operation and maintenance (O&M) present worth (PW) is based on an interest rate of 3% and includes power (using an assumed energy cost of \$0.25/kWh), lamp replacement, ballast replacement, quartz sleeve replacement, wiper ring/seal replacement (mechanism not included), cleaning system chemical, and labor (using an assumed labor rate of \$125/hr). It should be noted that Wedeco recommended a 3% failure rate for replacement of operating ballasts, compared to the 3.5% failure rate recommended by Trojan.



Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting

Agenda Item #8

SUBJECT: Regional Water Quality Control Board's Notice of Public Hearing for April 19, 2024 for the Tentative Order.

We spent some time at a previous Board meeting discussing the renewal of LiSWA's NPDES Waste Discharge permit. We provided comments on the process and Regional Board staff reviewed those comments. Based upon the comments there were some positive changes, and the item is currently on their consent calendar for April 19th.

Here is a review of the changes by Stantec engineering support:

For the most part, they concurred and incorporated our comments. Some comments not incorporated:

- Regarding the Land Discharge locations, in our cover letter, we proposed two options- 1) status quo (preferred) or 2) combine Mat Ponds 1 and 2 as one discharge location and TSB 1 and 2 as one discharge location and remove the liner monitoring/reporting. They said they can't remove the Land Discharge locations but they did incorporate our second option so at least the liner monitoring and reporting was removed.*
- Regarding the instrument failure NOV, their response was "Staff do not concur. Compliance and Enforcement Staff indicated that they do not have the requested language, but Compliance and Enforcement Staff do have discretion regarding issuance of NOVs for instrumentation failures depending on the supporting information provided by the Discharger." I don't think there's anything more we can do about this, but at least they have discretion regarding issuance of NOVs for instrument failures.*
- We had a note clarifying a specific location (below) where "Discharge Point 001" should be changed to EFF-001B as Discharge Point 001 is defined at EFF-001A and EFF-001B. I feel they didn't understand the comment. We were trying to clarify that even if there is flow at EFF-001A, there may not be discharges to Auburn Ravine Creek (EFF-001B) as we may be sending the water to the TSBs or reclamation. Their response was "Staff do not concur. The intention of the note is to compare the influent and effluent of the Tertiary Storage Basins. Furthermore, there is no monitoring for electrical conductivity at EFF-001B." We weren't proposing to change EFF-001A to EFF-001B, but rather note that this is only needed when actually discharging to Auburn Ravine Creek. Their response may indicate that this monitoring is needed regardless. Further, we divert to the TSB downstream of EFF-001A and return it upstream of EFF-001A (downstream of INT-*

001), so I'm not sure how monitoring these two locations within 12 hours of each other would provide a comparison of influent and effluent of the TSBs. In any case, I don't think this comment would be enough to contest it, but we may want to clarify with the Regional Board so Gary knows when to sample.

- f. **Electrical Conductivity.** When discharge occurs at **Discharge Point 001**, the electrical conductivity samples collected at EFF-001A and INT-001 shall be collected within a 12-hour period of each other.
- - We requested chloride monitoring to and in the ponds be removed. They said chloride is a stable tracer for municipal wastewater effluent so it's needed to monitor for potential discharges to groundwater. They did reduce the monitoring for discharges to the ponds from monthly to quarterly. They also removed chloride from the standard minerals list for the ponds.
 - We requested that it be noted that asbestos monitoring isn't needed for the effluent and receiving water characterization. They clarified that it's not needed for the pretreatment monitoring, but is needed for the effluent and receiving water characterization.
 - We had a comment to note the correct pH effluent limit range. They noted the table that was commented on was to show the "technology-based effluent limitations" rather than the "water-quality based effluent limitations" (which are more conservative).

There were also comments made by Joanne Kipps and revisions were made in response to her comments (e.g., moved ammonia, nitrate, and nitrate limitations/monitoring back to EFF-001A, removed BOD land discharge specifications, included EC trigger of 700 umhos/cm, added additional pond details we sent them, added Attachment I Standard Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports, language modifications, etc.).

I have attached the information from the Regional Board staff for your information.

It is our recommendation that we have done the best we can expect and are appreciative of the Regional Board Staff working with us, therefore we do not recommend contesting the action.

We will have Wes and Stantec join the meeting virtually so we can be assured that there are no questions from the Board and can respond as necessary.

Staff Recommendation:

"LiSWA does not contest the Central Valley Regional Water Quality Control Board tentative order for NPDES No. CA0084476."

Central Valley Regional Water Quality Control Board
18/19 April 2024 Board Meeting

Response to Written Comments on
Tentative Waste Discharge Requirements for
Lincoln-SMD1 Wastewater Authority
Lincoln-SMD1 Wastewater Authority Wastewater Treatment and Reclamation Facility
Placer County

At a public hearing scheduled for 18/19 April 2024, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of tentative Waste Discharge Requirements (NPDES No. CA0084476) for the Lincoln-SMD1 Wastewater Authority (LiSWA), LiSWA Wastewater Treatment and Reclamation Facility. This document contains responses to written comments received from interested persons in response to the tentative Order. Written comments from interested persons and parties were required to be received by the Central Valley Water Board by 1 March 2024 in order to receive full consideration. Comments were received prior to the deadline from:

1. LiSWA (Discharger) (received 1 March 2024)
2. Joanne Kipps (received 1 March 2024)

Written comments from the above interested persons and party are summarized below, followed by the response of Central Valley Water Board staff.

DISCHARGER COMMENTS

DISCHARGER COMMENT #1 – The Discharger indicated that effluent stored in Tertiary Storage Basins 1 and 2 can be transferred between basins as well as process water can be transferred between Maturation Ponds 1 and 2; therefore, Tertiary Storage Basin 1 and 2 should be considered as a single unit process, as should Maturation Ponds 1 and 2. The Discharger also indicated that the liners for all four ponds were installed for pond maintenance and levee integrity purposes and not to prevent discharges to groundwater. For these reasons, the Discharger requested that both Tertiary Storage Basin 1 and 2 be either declared Discharge Point 002 and Maturation Ponds 1 and 2 be declared Discharge Point 003 or both discharge points be removed, and the ponds and basins be declared unit processes that may have incidental leakage that do not require a liner. Under either scenario, the Discharger also requests the removal of liner integrity and maintenance reporting because the reporting was focused on preventing discharge from the liners, not pond maintenance and levee integrity as the liners were designed to accomplish. The Discharger wants to focus their efforts on the additional land discharge, pond and groundwater monitoring and reporting along with possible expansion of the groundwater monitoring well network that would come with combining the storage basins as a single discharge point along with the maturation ponds as another single discharge point.

RESPONSE: Staff do not concur with the Discharger's request to remove Discharge Points 002 and 003. Without fully lined and maintained storage ponds, discharge to the subsurface beneath the ponds is occurring and with the available data and information a conclusion cannot be made as to the quantity of wastewater discharge from the ponds or impacts to groundwater. Therefore, staff have added Discharge Points 002 and 003 and additional monitoring and reporting in the proposed Order to best determine impacts, if any, to groundwater from the Tertiary Storage Basin 1 and 2 and Maturation Ponds 1 and 2.

Central Valley Water Board staff concur with the Discharger's request to combine Tertiary Storage Basins 1 and 2 into Discharge Point 002 and Maturation Ponds 1 and 2 into Discharge Point 003 and removal of the liner integrity and maintenance reporting for the reasons provided by the Discharger above. Staff have revised the proposed Order sections shown below to incorporate both Tertiary Storage Basin 1 and Tertiary Storage Basin 2 into Discharge Point 002 and Maturation Pond 1 and Maturation Pond 2 into Discharge Point 003 throughout the proposed Order as appropriate.

Modify section IV.B.1 of the Waste Discharge Requirements (WDRs) to the following:

1. Beginning 1 June 2024, the Discharger shall maintain compliance with the following effluent limitations for discharge to Tertiary Storage Basin 1 and Tertiary Storage Basin 2, with compliance measured at monitoring location LND-001 and Maturation Pond 1 and Maturation Pond 2, with compliance measured at monitoring location LND-002, as described in the attached MRP. The Discharger shall maintain compliance with the effluent limitations specified in Table 6.

Remove sections VI.C.2.c Annual Pond Liner Assessment Report and VI.C.2.d Pond Liner Integrity Assessment Report from the WDRs.

Modify Table E-1 Monitoring Station Locations of Attachment E – Monitoring and Reporting Program as shown in part below:

002	LND-001	Land discharge monitoring location where a representative sample of the effluent from the Treatment Facility can be collected prior to discharge into Tertiary Storage Basin 1 and/or Tertiary Storage Basin 2. Latitude: 38° 51' 38" N Longitude: 121° 20' 55" W
-----	---------	--

003	LND-002	Land discharge monitoring location at the Maturation Pond Pump Station where a representative sample of process water can be collected prior to discharge into Maturation Pond 1 and/or Maturation Pond 2. Latitude: 38° 51' 40" N Longitude 121° 20' 51" W
-----	---------	--

Remove liner integrity and maintenance reports numbered 20 through 25 from Table E-15 Technical Reports of Attachment E – Monitoring and Reporting Program.

Modify section II.A.1.b, bullet two of Attachment F – Fact Sheet as shown below:

- Two maturation ponds, which are designed to equalize flow within the treatment process, effluent temperatures with receiving water temperatures, and to effectively equalize effluent concentrations. The maturation ponds operate as one unit as these can be operated in parallel and/or in a series. Maturation Pond 1's slopes are lined with high-density polyethylene (HDPE) and Maturation Pond 2 is completely lined with a single 60-mil HDPE liner, but not double lined with leak detection. Due to use, exposure to the weather, and other factors, liners can degrade in time and result in unregulated discharges to groundwater. The liners in Maturation Ponds 1 and 2 were installed to aid in the maintenance of the ponds, not to prevent percolation of process water to groundwater. Therefore, for the above-mentioned reasons this Order considers both Maturation Ponds 1 and 2 a combined discharge point to groundwater;

Modify section II.A.1.b, bullet seven of Attachment F – Fact Sheet as shown below:

- Two existing storage basins for holding tertiary treated effluent from the Facility labeled as Tertiary Storage Basin 1 and 2 (capacity of 90 MG each). The Tertiary Storage Basins operate as one unit as these can be operated in parallel and/or in a series. Tertiary Storage Basin 1 slopes on the north and west are lined to prevent wave erosion. Tertiary Storage Basin 2 is fully lined with single 60-mil HDPE, but not double lined with leak detection. Due to use, exposure to the weather, and other factors, liners can degrade in time and result in unregulated discharges to groundwater. The liners in Tertiary Storage Basins 1 and 2 were installed to aid in the maintenance of the basins, not to prevent percolation of process water to groundwater. Therefore, for the above-mentioned reasons this Order considers both Tertiary Storage Basins 1 and 2 a combined discharge point to groundwater;

Modify the five sentences of section IV.B.4.b. Groundwater, Attachment F – Fact Sheet as shown below:

- b. **Groundwater.** The Discharger utilizes a partially lined maturation pond and a fully lined maturation pond and a partially lined tertiary wastewater storage pond and a fully lined tertiary wastewater storage pond. The partially lined and fully

lined tertiary wastewater storage ponds (Tertiary Storage Basin 1 and 2, respectively) are designed to store tertiary treated wastewater before discharge to Auburn Ravine creek or the reclamation system. However, because Tertiary Storage Basin 1 is not completely lined and both Tertiary Storage Basin 1 and 2 liners were designed for pond maintenance and levee integrity, not leak prevention, discharge to the groundwater beneath the ponds may occur. The partially lined and lined maturation ponds (Maturation Pond 1 and 2, respectively) are designed to equalize flow within the Facility, to equalize effluent temperatures with receiving water temperatures, and to equalize constituent concentrations in the process water. However, because Maturation Pond 1 is not completely lined and both Maturation Pond 1 and 2 liners were designed for pond maintenance and levee integrity, not leak prevention, discharge to the groundwater beneath the ponds may occur.

Remove sections VI.B.2.b Annual Pond Liner Assessment Report and VI.C.2.c Pond Liner Integrity Assessment Report from Attachment F – Fact Sheet.

DISCHARGER COMMENTS #s 2-6, 8-12, 14, 17-20, 23-33, 35-42: The Discharger submitted 33 minor comments on the tentative amending order, including editorial changes, cross-references, and typographical corrections.

RESPONSE: Central Valley Water Board staff concur and have revised the proposed Order accordingly.

DISCHARGER COMMENT #7: Please add language to Section VII, Compliance Determination, that instrument failures will not be considered a Notice of Violation (NOV). Regional Board Enforcement staff said they have a version of this language, and it must be in the permit to apply.

RESPONSE: Staff do not concur. Compliance and Enforcement Staff indicated that they do not have the requested language, but Compliance and Enforcement Staff do have discretion regarding issuance of NOVs for instrumentation failures depending on the supporting information provided by the Discharger.

DISCHARGER COMMENT #13: It is requested that note f on section IV.B.2 of the MRP be clarified to be EFF-001B (as Discharge Point 001 is defined as EFF-001A and EFF-001B).

RESPONSE: Staff do not concur. The intention of the note is to compare the influent and effluent of the Tertiary Storage Basins. Furthermore, there is no monitoring for electrical conductivity at EFF-001B.

DISCHARGER COMMENT #15: Please clarify the value of chloride sampling at this sampling location or remove it from Table E-6.

RESPONSE: Chloride is a stable tracer for municipal wastewater effluent; therefore, to monitor the potential discharge of wastewater to groundwater from Discharge Points 002 and 003, chloride monitoring is included in Table E-6.

Attachment F – Fact Sheet, section VII.E.3 Pond Monitoring of the proposed Order has been revised as shown below to provide the rationale for chloride monitoring:

3. Pond Monitoring

Pond monitoring is required to ensure proper operation of the Maturation Ponds and Tertiary Storage Basins per the Facility Pond Operating Requirements in section VI.C.4.c of this Order. Weekly monitoring for presence of water, discharge to storage pond, freeboard, dissolved oxygen, and pond conditions are included in this Order. Chloride is a stable tracer for municipal wastewater effluent, therefore to monitor the potential discharge to groundwater from the Facility's Ponds, this Order requires quarterly monitoring for chloride at the Tertiary Storage Basins and Maturation Ponds.

In the tentative Order, Table E-6 included chloride as part of the standard minerals and separately as its own parameter. Staff have removed specific parameter monitoring for chloride in Table E-6 of Attachment E – Monitoring and Reporting Program. The chloride monitoring frequency in Table E-6 has been revised to quarterly from monthly to match the chloride groundwater monitoring well frequency. Section VI.A.2.d of Attachment E – Monitoring and Reporting Program has been modified to the following:

- d. **Standard minerals (except for Chloride)** shall be sampled quarterly for the first two years after the effective date of this Order, but can be reduced to an annual monitoring frequency after the two year period.

DISCHARGER COMMENT #16: It is not believed to be necessary to require chloride sampling in Tables E-6 and E-7.

RESPONSE: Staff do not concur. The proposed Order requires chloride monitoring to the ponds and in the ponds to determine the possible impacts evaporation, rainfall, etc. have on chloride concentrations in the ponds to determine if future monitoring of the land discharge points should be maintained, reduced or removed.

DISCHARGER COMMENT #21: Please add the sentence, "The Discharger is not required to sample and analyze for asbestos." as a note to Table E-13.

RESPONSE: Staff do not concur. Asbestos is a California Toxics Rule parameter, number 15, which is one of the 126 parameters that the Board requires to be sampled during the permit term consistent with the Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2005) and 40 C.F.R. § 122.21(j)(4), to evaluate reasonable potential during the next permit renewal. Asbestos monitoring is excluded from pretreatment monitoring of the influent and effluent, not the effluent and receiving water characterization monitoring.

DISCHARGER COMMENT #22: Please list the Pond Liner Integrity Assessment Report under the items required to be included in the ROWD for completeness.

RESPONSE: Comment 22 was addressed as part of Discharger Comment 1. Please see Discharger Comment 1.

DISCHARGER COMMENT #34: For Table F-16, the instantaneous minimum and maximum pH effluent limitations are 6.5 and 8.5, respectively.

RESPONSE: Staff do not concur. The requested changes represent the water quality-based effluent limitations for pH. Table F-16 represents the technology-based effluent limitations for pH which are 6.0 and 9.0, as indicated in the tentative Order and maintained in the proposed Order.

JOANNE KIPPS COMMENTS

JOANNE KIPPS COMMENT #1

Please clarify the 85% BOD₅ /TSS removal requirement and monitoring location. Why does the tentative order move effluent limitations for ammonia and nitrate plus nitrite from Discharge Point 001 (EFF-001A) to Monitoring Location INT-001? Which of the effluent limitations in Section IV.A are subject to Minimum Mandatory Penalties?

RESPONSE: Central Valley Water Board Staff have modified Attachment F – Fact Sheet, paragraph four of section IV.B.2.a to clarify the 85% BOD₅ /TSS removal requirement and monitoring location as shown below:

Section 133.102 of 40 C.F.R., in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average BOD₅ and TSS percent removal shall not be less than 85 percent. However, wastewater held in Tertiary Storage Basins 1 and 2 is no longer part of the treatment process, but may be held for a period longer than 30 days before discharge to Auburn Ravine Creek, making the 30-day average percent removal determination after treatment infeasible at times. Therefore, this Order contains a limitation requiring an average of 85 percent removal of BOD₅ and TSS over each calendar month, applicable at internal monitoring location INT-001. Monitoring location INT-001 provides a feasible monitoring location to determine the 30-day average BOD₅ and TSS percent removal following completion of the tertiary treatment process by comparing the influent BOD₅ and TSS concentrations with the post tertiary treatment process BOD₅ and TSS concentrations.

The tentative Order moved effluent limitations for ammonia and nitrate plus nitrite from Discharge Point 001 (EFF-001A) to Monitoring Location INT-001 because INT-001 represents the discharge point of the tertiary treatment system; however, this is not the appropriate point for determining compliance when discharging to surface water for these constituents. EFF-001A is the appropriate location because it represents the

quality of effluent being discharged to surface water since the discharge can be a mix of effluent from the tertiary treatment system, the Tertiary Storage Basins or one or the other, not just the effluent from the tertiary treatment system. Therefore, Staff have revised the proposed Order to revert the ammonia and nitrate plus nitrite limits back to EFF-001A, as they were in Order R5-2018-0082, along with the respective monitoring and reporting requirements from INT-001 to EFF-001A as shown below and throughout the proposed Order as necessary:

Remove ammonia and nitrate limits from Table 4. Effluent Limitations – Filter Clearwell Internal Waste Stream Compliance Point (Monitoring Point INT-001) and add them to Table 5. Effluent Limitations EFF-001A of the WDRs as follows:

Table 5. Effluent Limitations – EFF-001A

Parameter	Units	Average Monthly	Average Weekly
Biochemical Oxygen Demand, 5-day @ 20°Celsius (BOD ₅)	milligrams per liter (mg/L)	30	45
Total Suspended Solids (TSS)	mg/L	30	45
Ammonia (as N)	mg/L	1.2	2.8
Nitrate Plus Nitrite (as N)	mg/L	10	17

Remove ammonia and nitrate plus nitrite monitoring and reporting from Table E-3. Effluent Monitoring – Monitoring Location INT-001 and add them to Table E-4. Effluent Monitoring – Monitoring Location EFF-001A of Attachment E – Monitoring and Reporting Program as shown in part below:

Table E-4. Effluent Monitoring – Monitoring Location EFF-001A

Parameter	Units	Sample Type	Minimum Sampling Frequency
Ammonia (as N)	mg/L	Grab	1/Week
Nitrate (as N)	mg/L	Grab	1/Month
Nitrite (as N)	mg/L	Grab	1/Month
Nitrate plus Nitrite (as N)	mg/L	Calculate	1/Month

All effluent limitations included in section IV.A Effluent Limitations of the WDRs are subject to mandatory minimum penalties because they have been identified as effluent limitations in this proposed Order. Monitoring location nomenclature or location within the treatment system does not override section IV.A Effluent Limitations specifying where the compliance point is within the treatment system and specifically the applicable limitation or limitations to that compliance point.

JOANNE KIPPS COMMENT #2

Discharge Point 003 in Table 2, Discharge Location, has the same latitude and longitude for monitoring locations EFF-001A and LND-001. Shouldn't it be the same as LND-002 (Latitude: 38°51'36"N, Longitude: 121°21'01"W)? The Flow Schematic, Attachment C, does not identify D-002, LND-002 (below EFF-001A), D-003, and LND-001.

RESPONSE: Central Valley Water Board staff concur. Staff have revised the proposed Order to correct the longitude and latitude for Discharge Points 002 and 003 as updated by the Discharger, along with a revised Flow Schematic that identifies Discharge Points 002 and 003 as well as LND-001 and LND-002, as follows and throughout the proposed Order as appropriate:

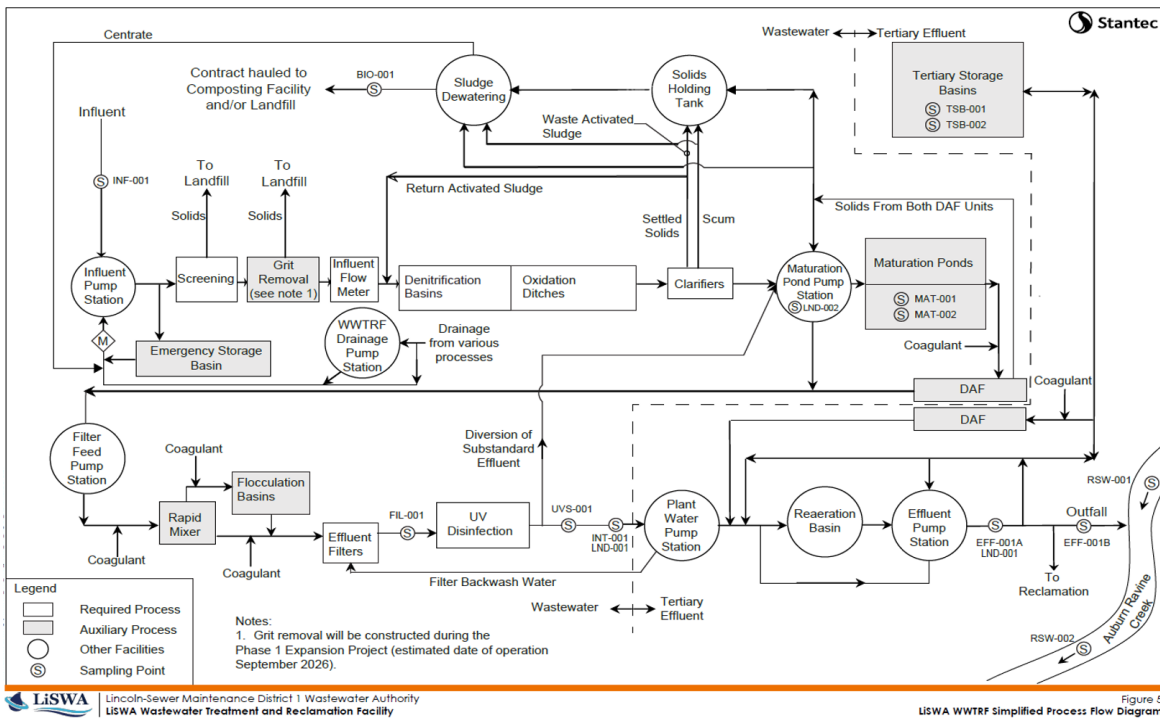
Table 2. Discharge Locations of the WDRs has been modified to the following:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Tertiary Treated Effluent	38° 51' 05"	121° 21' 23"	Auburn Ravine Creek
002	Tertiary Treated Effluent	38° 51' 38"	121° 20' 55"	Groundwater
003	Secondary Treated Effluent	38° 51' 40"	121° 20' 51"	Groundwater

Attachment C – Flow Schematic has been updated with the following diagram:

ATTACHMENT C – FLOW SCHEMATIC



JOANNE KIPPS COMMENT #3

Tertiary Storage Basin 1 receives only disinfected tertiary effluent, why doesn't the Land Discharge Specification for BOD5 reflect tertiary treatment for Discharge Point 002 (i.e., 10 mg/L average monthly and 15 mg/L average weekly)? Since nitrogen removal treatment generally results in low effluent BOD5, consider eliminating the BOD5 limitation altogether in the Land Discharge Specification. In other words, the effluent limitation of 10 mg/L for nitrate (as N) generally assures that effluent BOD5 concentrations will consistently be below 30 mg/L, rendering the proposed BOD5 limitation unnecessary.

And, consider implementing the effluent EC trigger of 700 umhos/cm (calendar average) as a performance-based salinity effluent limitation in Table 6, applicable to both Discharge Point 002 and Discharge Point 003.

RESPONSE: Central Valley Water Board staff concur that the BOD5 land discharge specification should be 10 mg/L average monthly and 15 mg/L average weekly at Discharge Point 002, since the wastewater has been tertiary treated prior to this discharge point. However, as Ms. Kipps points out that nitrogen removal treatment results in low effluent BOD5, the highest average monthly BOD5 last permit term was 6.9 mg/L; therefore, as Ms. Kipps recommends, the land discharge specifications for BOD5 are unnecessary with inclusion of the 10 mg/L nitrate effluent limitation. Staff

have revised Table 6 of the WDRs to remove the BOD5 average monthly and weekly land discharge specifications.

Staff also concur that an EC trigger should be included for Discharge Points 002 and 003; therefore, Staff have revised the proposed Order to include an effluent EC trigger of 700 umhos/cm (calendar average) for monitoring locations EFF-001A, LND-001, and LND-002 to section VI.C.3.a of the WDRs, as shown below and throughout the proposed Order as appropriate.

3. Best Management Practices and Pollution Prevention

- a. **Salinity Evaluation and Minimization Plan (SEMP).** The Discharger shall continue to implement a SEMP to identify and address sources of salinity discharged from the Facility. An evaluation of the effectiveness of the SEMP shall be submitted with the ROWD. The evaluation shall include, at minimum, the calendar annual average concentrations of effluent electrical conductivity during the term of the Order. If the average electrical conductivity concentration for any calendar year exceeds a performance-based **trigger of 700 µmhos/cm** at monitoring locations EFF-001A, LND-001, and/or LND-002, the Discharger shall evaluate possible sources of salinity contributing to the exceedance of the trigger and update the SEMP to include a plan of action to control salinity.

JOANNE KIPPS COMMENT #4

Please revise the proposed Order to provide for the Tertiary Storage Basins and Maturation Ponds: pond area (acres), working liquid depth (feet), pond invert elevations (feet amsl), and vertical separation distance (feet) between pond invert and highest anticipated groundwater.

RESPONSE: Central Valley Water Board staff concur. Staff received the requested information from the Discharger and revised Attachment F – Fact Sheet, section II.A as shown below.

2. Pond Area

- a. **Maturation Ponds 1 and 2**
 - Maturation Pond 1 is 19.5 acres at maximum water surface (less area at reduced depths).
 - Maturation Pond 2 is 20.8 acres at maximum water surface.
- b. **Tertiary Storage Basins 1 and 2**

- Tertiary Storage Basin 1 and 2 are 20.7 acres and 21.9 acres, respectively, at maximum water surface.

3. Pond Working Liquid Depths

a. Maturation Ponds 1 and 2

- High water level elevation is 114.0 feet above mean sea level (AMSL) with 2 feet overflow freeboard. The low water level elevation is 96.5 feet AMSL, drained.
- Working depth is 0 feet to 17.5 feet with overflow freeboard. Working depth is usually 10 feet to 12 feet to retain equalization storage capacity.

b. Tertiary Storage Basins 1 and 2

- High water level elevation is 123.0 feet AMSL. Low water level elevation is 108.5 feet AMSL, usually 110.5 feet to prevent plant growth in Tertiary Storage Basin 1.
- Working Depth 13.5 feet in Tertiary Storage Basin 1 and 15.5 feet in Tertiary Storage Basin 2 when fully drained.

4. Pond Invert Elevations

a. Maturation Ponds 1 and 2

- 96.5 feet AMSL at the lowest point (floor slopes up).

b. Tertiary Storage Basins 1 and 2

- 108.5 feet AMSL at the lowest point (floor slopes up).

5. Vertical Separation Distance Between Pond Invert and Highest Anticipated Groundwater

Groundwater elevations vary over time, as do projected groundwater gradients between monitoring wells

a. Maturation Ponds 1 and 2

- Groundwater Monitoring Well MW-2 appears most in line with Maturation Ponds 1 and 2 and indicates a maximum recorded groundwater elevation of 85.0 feet AMSL.

- The minimum vertical separation between pond inverts and groundwater is 11.5 feet.
- The average groundwater elevation is approximately 78 feet AMSL.
- The average separation is approximately 18.5 feet.

b. Tertiary Storage Basins 1 and 2

- Groundwater Monitoring Well MW-4 appears most in line with the Tertiary Storage Basins 1 and 2 and indicates a maximum recorded groundwater elevation of 96.0 feet AMSL.
- The minimum vertical separation between the Tertiary Storage Basins invert and groundwater is 12.5 feet.
- The average groundwater elevation is approximately 88 feet AMSL.
- The average separation is approximately 20.5 feet.

JOANNE KIPPS COMMENT #5

Please revise the Draft to carry over the Current Order's language regarding metals.

RESPONSE: Central Valley Water Board staff concur. Staff have revised the proposed Order, in Attachment F – Fact Sheet, section II.B.4 as shown below.

4. Secondary treated, undisinfected municipal wastewater is discharged to groundwater at Discharge Point 003 from Maturation Ponds 1 and 2 at an approximate latitude of 38° 51' 40" N longitude 121° 20' 51" W. Discharge to groundwater occurs when process water is stored in Maturation Ponds 1 or 2, which are treatment ponds designed to equalize flow within the Facility, to equalize effluent temperatures with receiving water temperatures, and to effectively equalize effluent concentrations of conservative contaminants, such as metals in the process water.

JOANNE KIPPS COMMENT #6

Please revise Table F-5 to identify groundwater beneficial uses as existing. Or, provide technical and regulatory justification for identifying apparent existing groundwater beneficial uses as potential.

RESPONSE: Central Valley Water Board staff concur with identifying the beneficial use as existing and have revised Table F-5 of Attachment F – Fact Sheet of the proposed Order as shown in part below.

Table F-5 Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
002 and 003	Groundwater	<u>Existing:</u> Municipal and domestic water supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PRO).

JOANNE KIPPS COMMENT #7

Please consider including an Order attachment specifying groundwater well work plan and installation reporting information in the attachment common to land discharge WDRs, *Standard Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports* (see Attachment E in WDR Order R5-2021-0025 for the City of Corcoran WWTF, Kings County).

RESPONSE: Central Valley Water Board staff concur and have revised the proposed Final Order to add Attachment I - Standard Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports, with similar requirements to Attachment E in WDR Order R5-2021-0025 for the City of Corcoran WWTF, Kings County. Section VI.C.2.b Groundwater Monitoring Well Network Evaluation Report of the WDRs was revised to incorporate the requirements of Attachment I as shown below:

- b. **Groundwater Monitoring Well Network Evaluation Report.** The Discharger shall conduct an assessment of the current groundwater monitoring well network and propose additional wells, where necessary, to characterize groundwater gradient and quality near and downgradient from Tertiary Storage Basins 1 and 2 and Maturation Ponds 1 and 2, and, if necessary, to better characterize background concentrations. The report shall include a project schedule not to exceed one year, include, if necessary, a closure plan for the decommissioning of existing wells, and satisfy the information requirements, as part of the Groundwater Monitoring Well Network Evaluation Report. The Discharger must submit the Groundwater Monitoring Well Network Evaluation Report to the Central Valley Water Board on the date provided in the Technical Reports Table of the MRP (Attachment E).
- i. **Groundwater Monitoring Well Installation Work Plan (if necessary).** If the Discharger determines there is a need to install new groundwater monitoring wells, then the Discharger shall follow the requirements of Attachment I – Standard Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports and provide a Groundwater Monitoring Well Installation Work Plan to the Central Valley

Water Board by the date provided in the Technical Reports Table of the MRP (Attachment E).

- ii. **Groundwater Monitoring Well Installation Report (if necessary).** If the Discharger determines there is a need to install new groundwater monitoring wells, then the Discharger shall follow the requirements of Attachment I – Standard Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports and provide a Groundwater Monitoring Well Installation Report to the Central Valley Water Board by the date provided in the Technical Reports Table of the MRP (Attachment E).

If the Discharger determines there is a need to install new groundwater monitoring wells, then the Discharger shall follow the monitoring requirements for groundwater monitoring wells in Attachment E – Monitoring and Reporting Program, section VIII.B.

JOANNE KIPPS COMMENT #8

The Facility is near two surface water drainages, so it is unclear why the tentative order indicates otherwise.

RESPONSE: The language Attachment F – Fact Sheet, section III.E.1, paragraph four, sentence four is ambiguous as pointed out by Ms. Kipps and has been revised in the proposed Order as follows for clarity:

There are no ponds or lakes in the immediate vicinity of the Facility, except for seasonal rice fields and the Facility’s treatment plant ponds.

JOANNE KIPPS COMMENT #9

F-68, Item B. Effluent Monitoring, item 5. Second sentence should read: This Order requires effluent monitoring for Ammonia once per week at Monitoring Location ~~EFF-001A~~ **INT-001**. (if that is what staff decides).

RESPONSE: Staff would have made the proposed correction by Ms. Kipps; however, Staff revised the compliance point for ammonia to EFF-001A from INT-001. Therefore, no change was required to the proposed Order.

JOANNE KIPPS COMMENT #10

F-74, E.3. Consider revising:

~~Treatment pond~~ *Pond* monitoring is required to ensure proper operation of the storage ~~Pond~~ *Maturation Ponds and Tertiary Storage Basins*. Weekly monitoring for presence of water, discharge to storage pond, freeboard, dissolved oxygen, and pond conditions are included in this Order, *along with monthly monitoring for chloride*.

RESPONSE: Staff concur and revised Attachment F – Fact Sheet section VII.E.3 Pond Monitoring of the proposed Order as shown below:

3. Pond Monitoring

Pond monitoring is required to ensure proper operation of the Maturation Ponds and Tertiary Storage Basins per the Facility Pond Operating Requirements in section VI.C.4.c of this Order. Weekly monitoring for presence of water, discharge to storage pond, freeboard, dissolved oxygen, and pond conditions are included in this Order. Chloride is a stable tracer for municipal wastewater effluent, therefore to monitor the potential discharge to groundwater from the Facility's Ponds, this Order requires quarterly monitoring for chloride at the Tertiary Storage Basins and Maturation Ponds.

JOANNE KIPPS COMMENT #11

F-74, E.4. Consider revising:

Land discharge monitoring is required to ensure that the discharge to *Maturation Pond 1 and Tertiary Storage Basin 1* ~~the land disposal area~~ complies with *the Land Discharge Specification in section IV.B.1 of this Order*. ~~Storage Pond and Land Disposal Operating Requirements in section VI.C.4 of this Order~~. *This Order includes weekly* Weekly monitoring for flow, BOD₅, ~~total suspended solids~~, pH, *nitrate (as N)*, ~~total nitrogen~~, electrical conductivity; *monthly monitoring for total nitrogen and chloride; and annual monitoring for standard minerals*.

RESPONSE: Staff concur and have revised Attachment F – Fact Sheet section VII.E.4 Land Discharge Monitoring of the proposed Order as shown below:

4. Land Discharge Monitoring

Land discharge monitoring is required to ensure that the discharge to Maturation Ponds 1 and 2 and Tertiary Storage Basins 1 and 2 complies with the Land Discharge Specifications in section VI.B.1 of this Order. This Order includes monitoring for flow (daily), BOD₅ (weekly), pH (weekly), nitrate (as N) (weekly), electrical conductivity (weekly), total nitrogen (monthly), chloride (quarterly), and standard minerals (annual).

JOANNE KIPPS COMMENT #11

What is the reference(s) for the cited past geotechnical data? (Page F-6)

RESPONSE: The reference to “past geotechnical data” was included in error in the tentative Order. Staff removed the referenced text from the proposed Order.



Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting

Agenda Item #9

SUBJECT: Operations Contract Ad Hoc Committee Recommendation

The Operations Contract Ad Hoc Committee will meet on Wednesday before the Board Meeting. They will provide a recommendation on which firm to begin final contract negotiations with. It is anticipated that the contract will be ready for Board consideration at the May Board meeting.

Staff Recommendation:

“I move approval to direct the General Manager and Legal Counsel to negotiate a proposed contract with _____ and bring it back for consideration at the May Board meeting.”



Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting

Agenda Item #10

SUBJECT: Consider providing consent from LiSWA to Total Energies to participate in the Demand Side Grid Support program.

On Thursday April 5th, I had a virtual meeting with representatives of Total Energies, the company LiSWA has a power purchase agreement with for the solar panels and batteries at the WWTRF. They are requesting we provide consent for them to participate in California's Demand Side Grid Support program.

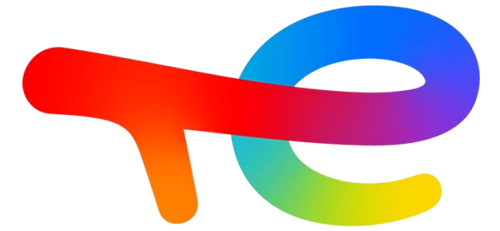
This program offers financial incentives to reduce demand on the power grid during times when the grid is stressed in the summer. This can happen a dozen or so times each year. The presentation they provided is attached to this memo. Based upon the information they provided in the contract we assumed from the City of Lincoln, it is their opinion there would be no financial benefit to LiSWA.

This came very late in preparation of the Board packet and Wes and I have not had time to review to provide a recommendation. Also, the specific consent questions will not be available until Monday.

This recommendation is for process purposes only and I will confirm the recommendation at the meeting.

Staff Recommendation:

“Authorize the General Manager to provide consent for Total Energies to participate in the California Demand Side Grid Support program in 2024 with the battery system at the WWTRF.”



TotalEnergies

California's new demand response program and Lincoln-Sewer Maintenance District 1 Wastewater Authority (LiSWA)

Frantz Tony

Sr. Asset Management

Alex Dey

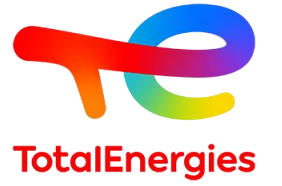
Director of Asset Management

Allegra Donadio

Sr. Business Development Manager

April 2024

Agenda



01

Current Operations and Performance

02

Demand Side Grid Support (DSGS) Program

03

Contract Review

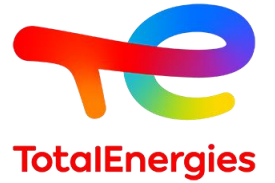
01.

Current Operations and Performance

Lincoln-Sewer Maintenance District 1 Wastewater Authority (LiSWA)

Operating Report

Billing Period: January 29, 2024 – February 27, 2024

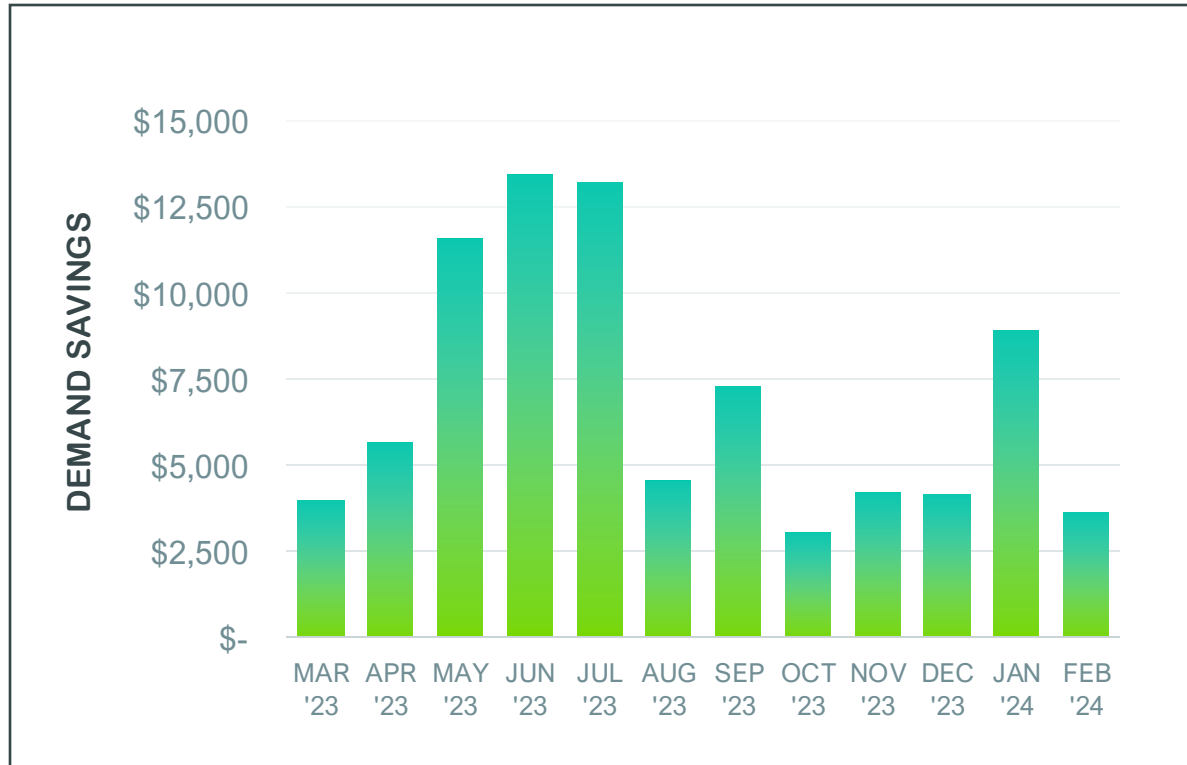


	Billing Period Actual	Actual Year-to-Date	Expected Year-to-Date	Actual Lifetime
		(for Guarantee Year starting June 28, 2023)		(Since June 28, 2022)
Demand Savings	\$3,660	\$49,239	\$50,899	\$127,110

SITE INFORMATION

- Location
1245 Fiddymont Rd,
Lincoln, CA 95648
- Solar System Size
3,732 kWp (AC)
- Energy Storage System Size
1000 kW / 2000 kWh
- Storage Operation Date
June 01, 2022
- Utility and Tariff Information
PGE E-20 P

System on track through strong PV output and expected high production summer month performance.



Calculated Charges for Billing Period

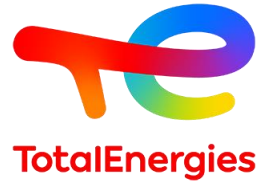
Without TotalEnergies (a)	\$29,751
Actual (b)	\$26,091
Savings (a-b)	\$3,660

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This report reflects calculations made with TotalEnergies monitoring equipment and the latest billing and tariff information provided by the customer named above. It does not incorporate actual utility-billed charges. Solar System and Energy Storage System power and energy ratings are total nameplate values for all systems interconnected at this site. Billing period dates are inclusive. Differences between modeled and actual billing periods may be the cause of significant variance between Guaranteed Year-To-Date savings and Actual Year-To-Date savings in the beginning of a Guarantee Year.

Lincoln-Sewer Maintenance District 1 Wastewater Authority (LiSWA)

Operating Report



Billing Period: January 29, 2024 – February 27, 2024

	Billing Period Actual	Actual Year-to-Date	Expected Year-to-Date	Actual Lifetime (Since June 28, 2022)
		(for Guarantee Year starting June 28, 2023)		
ITC Solar charging	100.0%	100.0%	100.0%	100.0%
Discharge throughput	9,268 kWh	238,767 kWh	173,333 kWh	699,779 kWh
	4.6 cycles	119.4 cycles	86.7 cycles	349.9 cycles
GHG emissions impact	224 kg	11,733 kg	n/a	32,235 kg
	0.1 kg/kWh	5.9 kg/kWh	n/a	16.1 kg/kWh

* Annual SGIP target is 130.0 cycles

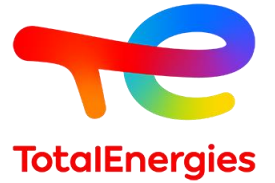
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This report reflects calculations made with TotalEnergies monitoring equipment and the latest billing and tariff information provided by the customer named above. It does not incorporate actual utility-billed charges. Solar System and Energy Storage System power and energy ratings are total nameplate values for all systems interconnected at this site. Billing period dates are inclusive. Differences between modeled and actual billing periods may be the cause of significant variance between Guaranteed Year-To-Date savings and Actual Year-To-Date savings in the beginning of a Guarantee Year.

02.

Demand Side Grid Support (DSGS) Program

Demand Side Grid Support (DSGS) and LiSWA as a "good grid citizen"

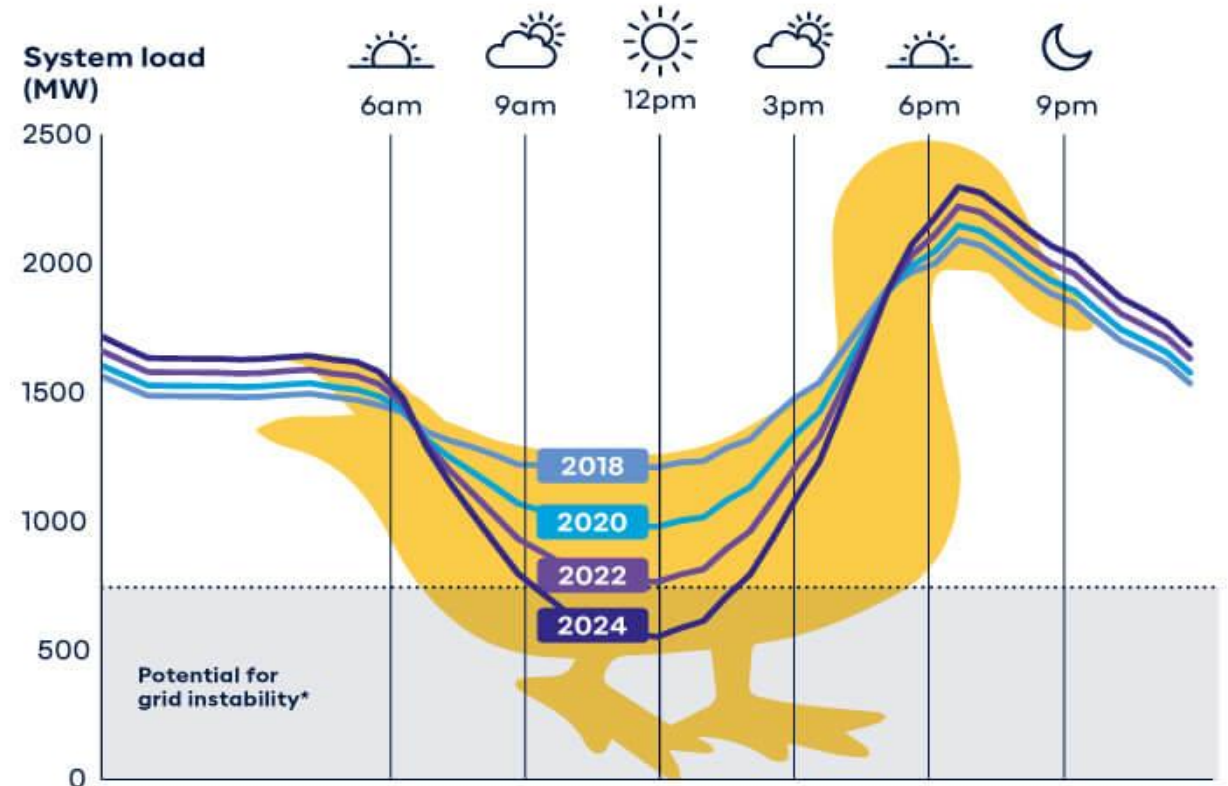


- As more solar is developed in CA, the system load versus generation takes the shape of a "duck curve"
- The grid is vulnerable as solar comes offline starting around 4pm
- DSGS is a new strategy the CA Energy Commission (CEC) developed and Olivine administrates to incentivize flexible generation to commit to offering predictable capacity to the grid when low generation is paired with extreme load during emergency events



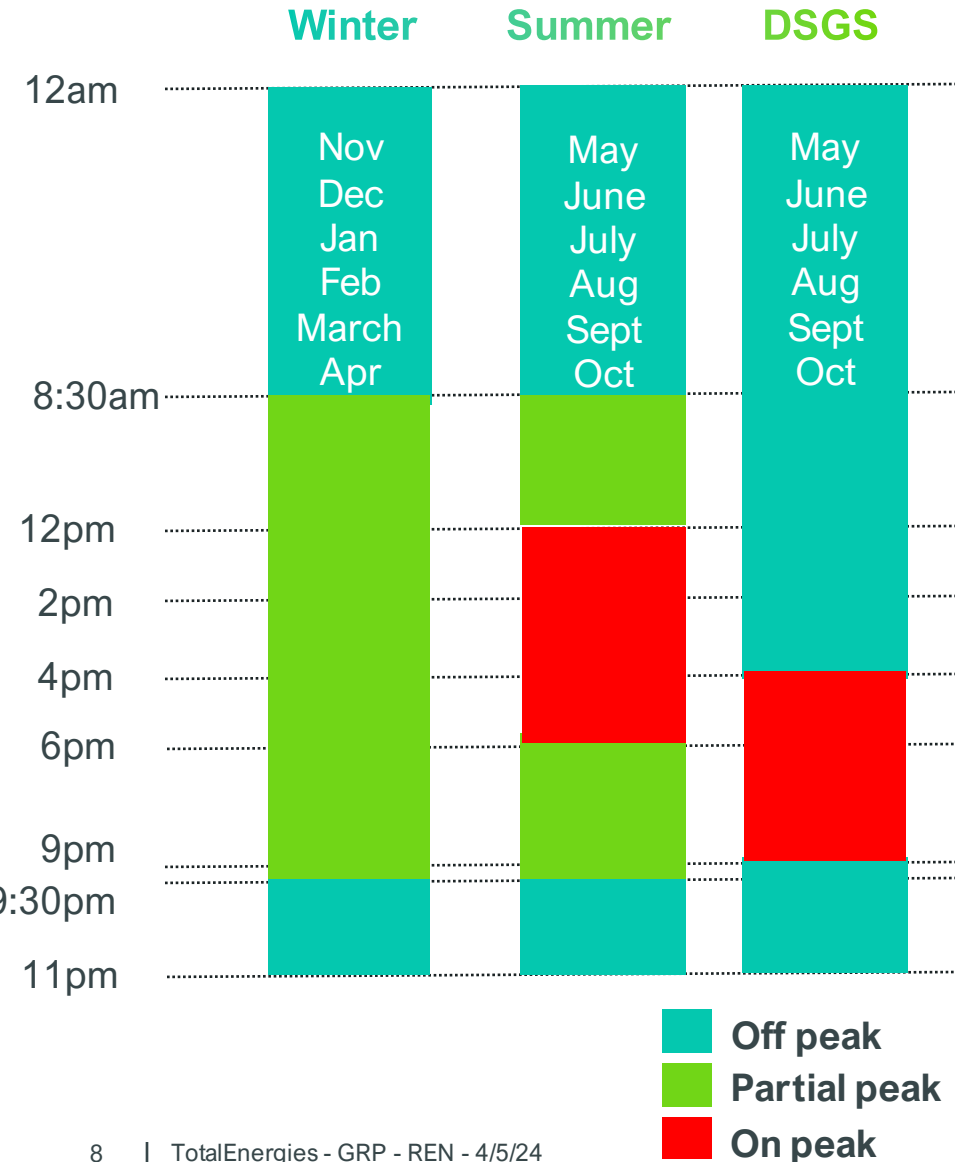
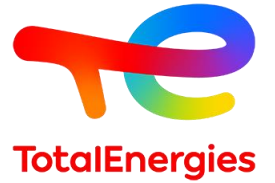
Support Californians

Contribute to community resilience



TotalEnergies is requesting support for program enrollment and participation

What is DSGS and what does it mean for LiSWA?



Program at a Glance	
Program Hours	4pm - 9pm
Program Season	May 1 – October 31
Event Frequency	Min: 1 per month, Max: 35 per season
Enrolled capacity	Propose 4hr nomination: 500kW / 2000kWh

PG&E 2023 DSGS Events		
Month	Date	Event Duration (hr)
July	21	1
	14	2
August	15	5
	16	4
	17	1
October	18	1
	19	2
Notes	7 total event days	2 hr average duration

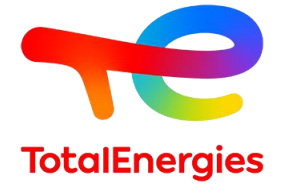
Site Information

- Energy Storage System Size **1000 kW / 2000 kWh**
- Utility and Tariff Information **PGE E-20 P**

Synergistic operations

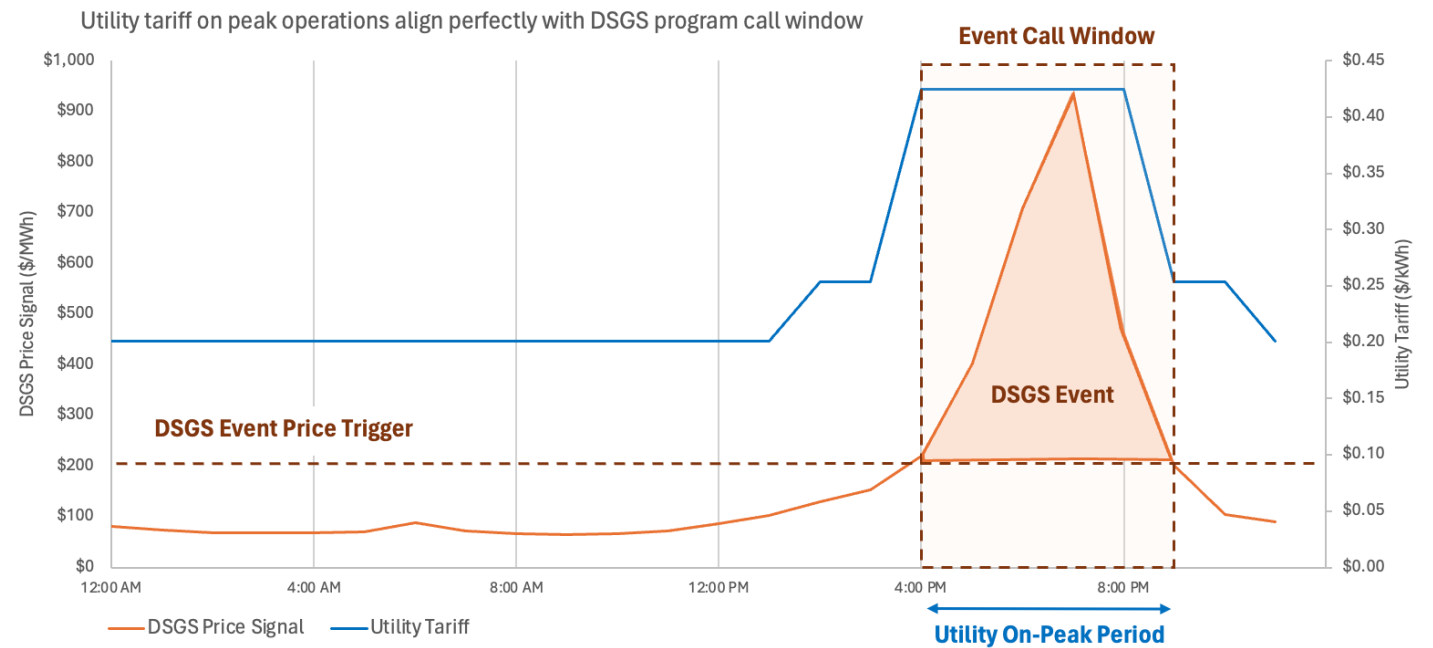
- The on peak period 12-6pm of the site tariff overlaps with the 4-9pm DSGS dispatch window
- DSGS for the 2024 season is triggered when the Day Ahead energy market price signal is $\geq \$200/\text{MWh}$ between 4-9pm

DSGS Program in Action

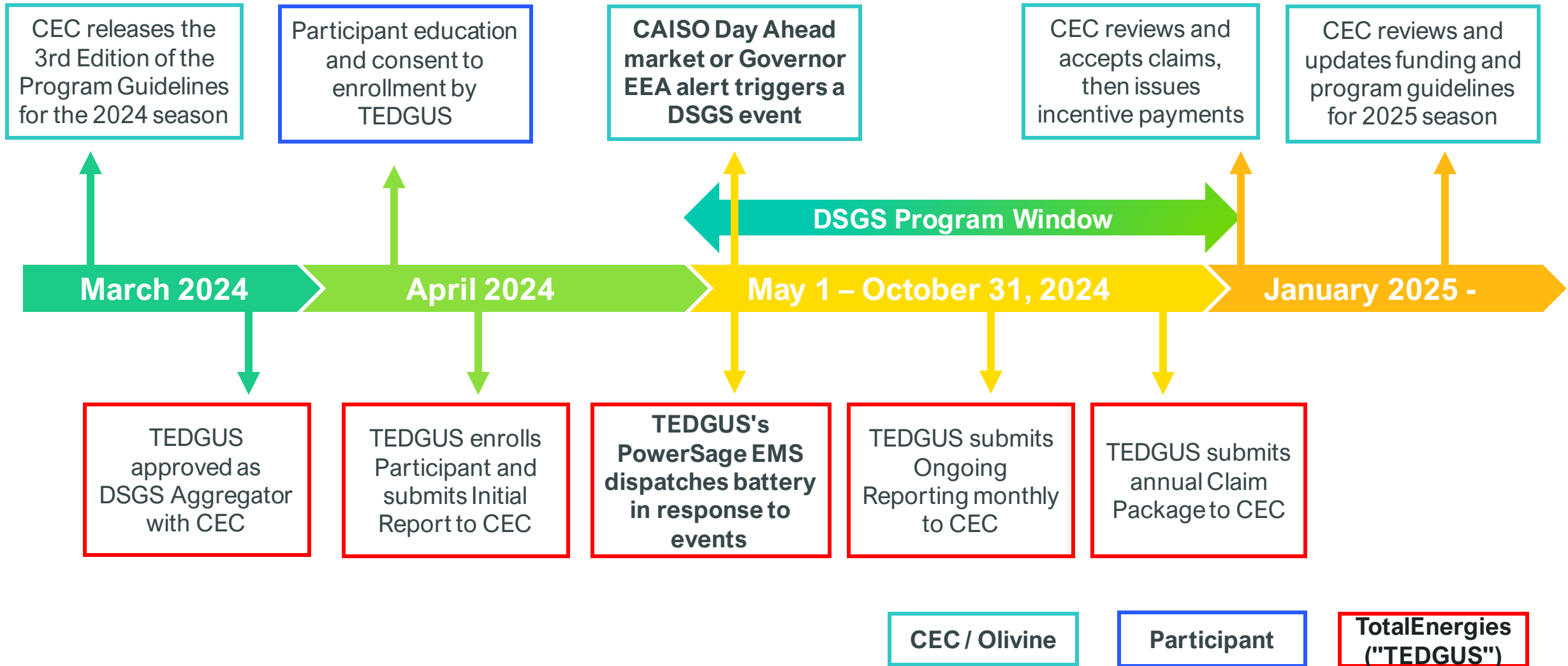
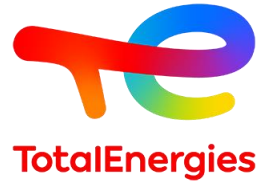


On August 14, 2023, there was extreme heat leading to statewide energy generation scarcity, triggering a DSGS event.

As solar energy resources came offline toward the end of the day, battery systems like one TotalEnergies operates at your facility were called upon during a peak period to provide power. The graph illustrates how events like this align with existing operational strategies.



DSGS Program Timeline

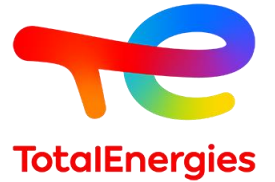


03.

Contract Review



LiSWA (formerly Lincoln WWTP) PPA

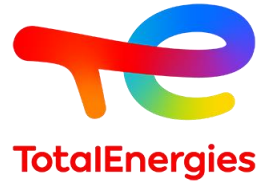


- Please note the below sections of your existing Power Purchase Agreement (PPA) with TotalEnergies / Lincoln Solar Star, LLC committing to supporting our enrollment of the storage asset into performance-based incentives, such as DSGS.
- **Supporting program enrollment does not impact your Performance Guarantee or guaranteed system savings!**

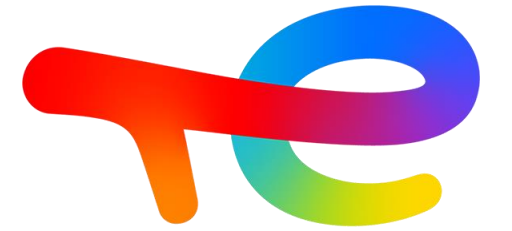
5.2.2 Environmental Financial Incentives. All Environmental Financial Incentives and associated Reporting Rights available in connection with the System are retained and owned by Provider or its assignee. Customer shall take all reasonable measures to assist Provider in obtaining all Environmental Financial Incentives currently available or subsequently made available in connection with the System. At Provider's request and expense, Customer shall execute all such documents and instruments reasonably necessary or desirable to effect or evidence Provider's or its assignee right, title and interest in and to the Environmental Financial Incentives. If the standards used to qualify the Environmental Financial Incentives to which Provider is entitled under this Agreement are changed or modified, Customer shall, at Provider's request and expense, use all reasonable efforts to cause the Environmental Financial Incentives to comply with new standards as changed or modified. If Customer fails to act in good faith in completing documentation or taking actions reasonably requested by Provider, and such failure results in the loss of an Environmental Attribute that would otherwise be available, Customer shall reimburse Provider for the full amount of such lost Environmental Attribute.

"Environmental Financial Incentives" shall mean each of the following financial rebates and incentives that is in effect as of the Effective Date or may come into effect in the future: (i) performance-based incentives, rebates and any other incentive programs offered by or in the State of California (or any political subdivision thereof) under the federal government's, any municipality's, any utility's or any other state's program or initiative (including, if applicable, subsidies available under the Self Generation Incentive Program administered through the California Public Utilities Commission), incentive tax credits (including investment tax credits arising under the Code) other tax benefits or grants in lieu thereof (including without limitation the monetization of tax benefits), and accelerated depreciation (collectively, "incentives"), howsoever named or referred to, with respect to any and all fuel, emissions, air quality, energy generation, energy storage, or other environmental or energy characteristics, resulting from the construction, ownership or operation of the System or from the use of solar generation or energy storage or the avoidance of the emission of any gas, chemical or other substance into the air, soil or water attributable to the sale of Energy and Storage Services generated by the System; and (ii) all reporting rights with respect to such incentives.

Next Steps



- **Sign a PPA addendum by April 17th**
 - Authorizing Site as program Participant (CEC)
 - Attesting Site is not in conflicting programs (CEC)
- **That's it!**



TotalEnergies

Thank you!



Lincoln-SMD1 Wastewater Authority

Memorandum

To: Board of Directors
From: George Barber, General Manager
Date: 04/12/24 Regular Board Meeting
Agenda Item #11
SUBJECT: 2024/25 BUDGET PRESENTATION

Attached is the 2024/25 Budget for your review and input. The final draft budget will come to you at the May meeting. We have moved the June meeting until the end of the month, so adopting it in May will be appropriate. LiSWA expenses expect to be below budget in the first fiscal year.

Staff Recommendation:

Review and provide input.

LiSWA FYE 2025 BUDGET- DRAFT		Estimated	Final	Proposed					
ASSUMPTIONS		FY Amount	Budget	Budget	Projected	Projected	Projected	Projected	Projected
3% increase annually		2022-23	2023-24	2024-25	2025-2026	2026-27	2027-28	2028-29	2029-30
EXPENDITURES	Notes	FY Amount	Budget	Budget	Projected	Projected	Projected	Projected	Projected
		FYE 2024	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
COMMUNICATION	Web Hosting	16,000	12,000	2,000	2,060	2,122	2,185	2,251	2,319
INSURANCE		335,000	330,000	339,900	350,097	360,600	371,418	382,560	394,037
FLEET MAINTENANCE		20,000	20,000	20,000	20,600	21,218	21,855	22,510	23,185
FUEL & OIL (Estimate \$1,500 per month potential Transfer to Stantec)		18,000	18,000	18,000	18,540	19,096	19,669	20,259	20,867
MEMBERSHIP DUES		1,000	1,000	1,000	1,030	1,061	1,093	1,126	1,159
CONSULTANT SERVICES									
GM Services - West Yost		485,000	531,000	485,000	499,550	514,537	529,973	545,872	562,248
Legal - Atkinson, Andleson, Loya, Ruud & Romo									
Accounting/Audit- Placer County	Placer County Treasurer Assistance and Audit	5,000	50,000	100,000	103,000	106,090	109,273	112,551	115,927
Sonitrol		20,000	20,000	20,000	20,600	21,218	21,855	22,510	23,185
LEGAL FEES		-	100,000	100,000	103,000	106,090	109,273	112,551	115,927
TECHNICAL SERVICES			100,000	160,000	164,800	169,744	174,836	180,081	185,484
Operations Contract Stantec		5,400,000	5,496,263	5,661,151	5,830,986	6,005,915	6,186,093	6,371,675	6,562,826
Engineering		100,000	100,000	100,000	103,000	106,090	109,273	112,551	115,927
City Of Lincoln IT and Public Works Services		70,000	100,000	20,000	20,600	21,218	21,855	22,510	23,185
RENTS AND LEASES - PROPERTY		57,400	57,400	64,000	65,920	67,898	69,935	72,033	74,194
Western Placer Waste Management Authority									
LiSWA Board members (\$200/member/mtg/mo)	Budget for Full Board	-	9,600	9,600	9,888	10,185	10,490	10,805	11,129
ADVERTISING/OUTREACH	Community Information	7,500	7,500	7,500	7,725	7,957	8,195	8,441	8,695
UTILITIES (Includes PGE and Solar)		1,691,000	1,745,000	1,797,350	1,851,271	1,906,809	1,964,013	2,022,933	2,083,621
PG&E									
City of Lincoln Water									
Total Energies - Lincoln Solar Star									
Cyber security/VPN		10,000	10,500	10,500	10,815	11,139	11,474	11,818	12,172
Web Hosting				20,000	20,600	21,218	21,855	22,510	23,185
REGULATORY FEES		85,000	90,000	90,000	92,700	95,481	98,345	101,296	104,335
TOTAL O & M EXPENDITURES-----		8,320,900	\$ 8,798,263	\$ 9,026,001	\$ 9,296,781	\$ 9,575,684	\$ 9,862,955	\$ 10,158,844	\$ 10,463,609
CAPITAL PROJECTS (annual ave. excluding expansion)		600,000	785,000	785,000	500,000	500,000	500,000	500,000	500,000
DEBT (Phase 1 & 2, Scenario 1)		-	-	-	-	-	-	-	-
DEBT PGE Loan		86,300	205,200	205,200	205,200	205,200	205,200	205,200	205,200
TOTAL CAPITAL/DEBT EXPENDITURES-----		\$ 686,300	\$ 990,200	\$ 990,200	\$ 705,200	\$ 705,200	\$ 705,200	\$ 705,200	\$ 705,200
ESTIMATED REVENUES-----									
BILLING TO PARTNERS									
WWTRU Estimated Growth					1850	2775	3625	4475	5325
WWTRU Estimate			30,532	31,200	33,050	35,825	39,450	43,925	49,250
Operations Charge per WWTRU			23.47	\$ 24.18	\$ 24.90	\$ 25.65	\$ 25.65	\$ 25.65	\$ 25.62
Capital/Debt Charge per WWTRU			11.09	\$ 11.42	\$ 11.77	\$ 12.12	\$ 12.12	\$ 12.12	\$ 12.12
Operations Charge			\$ 8,599,032	\$ 9,052,992	\$ 9,875,340	\$ 11,026,935	\$ 12,142,710	\$ 13,520,115	\$ 15,141,420
Capital/Debt Charge			\$ 4,063,199	\$ 4,275,648	\$ 4,667,982	\$ 5,210,388	\$ 5,737,608	\$ 6,388,452	\$ 7,162,920
OTHER									
Reclaimed Water Charges									
Agriculture Rents				\$ 101,090.00	\$ 101,090.00	\$ 101,090.00	\$ 101,090.00	\$ 101,090.00	\$ 101,090.00
TOTAL REVENUES-----			\$ 12,662,231	\$ 13,429,730	\$ 14,644,412	\$ 16,338,413	\$ 17,981,408	\$ 20,009,657	\$ 22,405,430
Projected Operational Balance-----			\$ (199,231)	\$ 128,081	\$ 679,649	\$ 1,552,341	\$ 2,380,845	\$ 3,462,361	\$ 4,778,901
Projected Capital/Debt Balance-----			\$ 3,072,999	\$ 3,285,448	\$ 3,962,782	\$ 4,505,188	\$ 5,032,408	\$ 5,683,252	\$ 6,457,720