

**AGENDA**

**ENGINEERING COMMITTEE MEETING  
LEUCADIA WASTEWATER DISTRICT**  
Wednesday December 6, 2023 – 11:00 a.m.  
1960 La Costa Avenue, Carlsbad, CA 92009

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1. **Call to Order**
2. **Roll Call**
3. **Public Comment**
4. **New Business**
  - A. Receive and file the FY2023 Audit of the District's 2019 Sewer System Management Plan (SSMP) completed by Dexter Wilson Engineering, Incorporated. (Pages 2 - 12)
5. **Information Items**
  - A. San Marcos Creek Pipeline Emergency Repair Status (Verbal)
6. **Directors' Comments**
7. **General Manager's Comments**
8. **Adjournment**

## MEMORANDUM

Ref: 24-8622

**DATE:** November 30, 2023  
**TO:** Engineering Committee  
**FROM:** Paul J. Bushee, General Manager   
**SUBJECT:** 2023 Audit of the District's 2019 Sewer System Management Plan (SSMP)

### RECOMMENDATION:

Staff requests that the Engineering Committee (EC) recommend that the Board of Directors:

1. Receive and file the FY2023 Audit of the District's 2019 Sewer System Management Plan (SSMP) completed by Dexter Wilson Engineering, Incorporated (DWEI).
2. Discuss and take other action as appropriate.

### DISCUSSION:

#### **Tactical Goal: Services / SSMP Audit**

The Statewide Sanitary Sewer Systems Waste Discharge Requirements (WDR), adopted in May 2006, imposed several regulations on all California agencies that operate Sewage Collection Systems. The Statewide WDR required sewer agencies to develop and implement a system-specific Sewer System Management Plan (SSMP). The District complied with all prescribed WDR provisions, including having a written SSMP that was originally adopted by the District's Board of Directors in 2009 and subsequently updated in June 2019. In December 2022, the State Water Resources Control Board adopted and reissued the WDR that changed the requirement for the SSMP update from a five year cycle to a six year cycle. Additionally, the reissued WDR changed the SSMP audit requirement from every two years to every three years. However, staff has elected to continue to conduct the SSMP audits annually which exceeds regulatory requirements.

The District retained DWEI to conduct the 2023 SSMP Audit. DWEI completed its audit and has concluded that the District's activities, programs, and efforts meet or exceed the requirements of our SSMP. Additionally, changes in District organization, practices, or regulations were not significant enough to require an update and readoption of the SSMP prior to August 2025, the deadline of the reissued WDR required six year update cycle.

The letter report of the FY2023 Audit is attached for your review. A copy of the complete report, including enclosures, is available upon request.

DWEI will present an overview of the FY2023 Audit at the meeting.

mg:PJB

Attachment

# DEXTER WILSON ENGINEERING, INC.

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DEXTER S. WILSON, P.E.  
ANDREW M. OVEN, P.E.  
NATALIE J. FRASCHETTI, P.E.  
STEVEN J. HENDERSON, P.E.  
FERNANDO FREGOSO, P.E.  
KATHLEEN L. HEITT, P.E.

October 20, 2023

103-019/7

Leucadia Wastewater District  
1960 La Costa Avenue  
Carlsbad, CA 92009

Attention: Paul Bushee, General Manager

Subject: Leucadia Wastewater District Sewer System Management Plan Fiscal Year  
2023 Audit

The Leucadia Wastewater District's (District) Sewer System Management Plan (SSMP) was adopted by the District Board and certified by the General Manager in June 2019. The purpose of the SSMP is to memorialize and publicly present in a central document the programs and activities utilized by the District to effectively manage its wastewater collection system. The SSMP requires audits at least every three years. The District has decided to conduct annual audits.

The purpose of this letter-report is to present the Fiscal Year 2023 (FY23) Audit (the fourth audit of the 2019 re-adoption of the District's SSMP) in fulfillment of the District's SSMP requirements. The Audit consists of completing the Section IX SSMP Evaluation Checklist and Section X SSMP Audit Checklist. These checklists are accompanied by summaries of the SSMP activities for the year.

### **Section IX SSMP Evaluation Checklist**

The Statewide Waste Discharge Requirements (WDR) governing sanitary sewers specify that each Wastewater Collection Agency shall:

- evaluate the implementation and effectiveness of the Enrollee's SSMP in preventing spills,
- evaluate the Enrollee's compliance with the WDR,
- identify SSMP deficiencies in addressing ongoing spills and discharges to waters of the State; and
- identify necessary modifications to the SSMP to correct deficiencies.

Maintaining the applicability of the SSMP to District activities necessitates ongoing evaluation of the activities the District performs, their success, and improvement, if necessary. The Section IX SSMP Evaluation Checklist (Evaluation Checklist) is used on an annual basis to evaluate the applicability and effectiveness of the District's SSMP.

In completing the Evaluation Checklist (found in Attachment A), we find that, in general, the District's activities, programs, and efforts meet or exceed the requirements of the WDR and SSMP. Minor changes were made to the SSMP to reflect the overall WDR update. However, the changes do not necessitate a re-adoption of the SSMP prior to the scheduled August 2, 2025 revision, per the required six year cycle. In completing the Evaluation Checklist, there are several items to note, as discussed in the Audit Discussion section below.

### **Section X SSMP Audit Checklist**

The Statewide WDRs governing sanitary sewers specify that the District shall conduct periodic internal audits, appropriate to the size of the system and the number of spills. These audits must occur, at a minimum, every three years and a report must be prepared and kept on file. The audit shall focus on evaluating the effectiveness of the SSMP and the District's compliance with the WDR and SSMP requirements, including the identification of any deficiencies in the SSMP and the steps taken to correct them.

The District has chosen to conduct their SSMP audit on an annual basis. In completing the Audit Checklist, we find all requirements of the checklist to be current and implemented. The completed Audit Checklist for FY23 can be found in Attachment B.

### **Audit Discussion**

The following paragraphs highlight notable elements of the FY23 Audit organized by the relevant SSMP Section. Additional notes can be found on the Evaluation Checklist in Attachment A.

**Sections I, II, and III (District Goals, Organization, and Legal Authority).** No appreciable changes have occurred to the District's Goals, Organization, or Legal Authority since the 2019 SSMP. The statewide WDR which governs the SSMP was revised/updated and became effective on June 5, 2023. District staff have been active in this process toward reissuance of the WDR including attending virtual State Water Board workshops and updating pertinent SOPs. There were two new field services staff hired in FY23.

**Section IV (Preventative Maintenance Program).** General statistics regarding the District's preventative maintenance activities are provided in Attachment C. Also in Attachment C, Exhibit C-1 graphically illustrates those areas within the District which are readily accessible for hydrocleaning and closed circuit television (CCTV) inspection and those areas which have additional needs or requirements in order to hydroclean or CCTV, such as the need for significant traffic control procedures or night work due to day time traffic volume or wastewater flows.

Exhibit C-2 tracks the general progress of CCTV inspections in the District. Per the District's SSMP, the District strives to CCTV their entire system every three years. The District is on track to meet its goal of CCTV inspecting its 200 mile gravity sewer system within a three-year timeframe. However, in review of Exhibit C-2, there are select areas within the District which have not been CCTV inspected in the last three years. These areas will be CCTV inspected in FY24.

The District has decided to reduce the CCTV inspection frequency of select gravity sewer lines with additional requirements (El Camino Real and the Batiquitos influent) to five year intervals similar to the Lanikai sewer line. These will be further assessed and a determination of CCTV inspection frequency will be made at the overall SSMP update.

In FY20, the District's portable flow meters (Echo meters) were relocated to strategic gravity sewer locations which are difficult to clean and CCTV inspect. In addition to monitoring capacity, the meters have assisted in determining whether the frequency of the resource intensive cleaning and CCTV activities of these locations can be extended. These locations are also being further evaluated in terms of inflow and infiltration.

In FY16, the District began introducing foam treatments in pipelines and manholes for the treatment of roots. The initial results were favorable and the District has incorporated foam treatment into the regular schedule of preventative maintenance activities. Additional line segments and manholes utilized foam treatment for root control in FY23.

In FY21, a mutual maintenance services and equipment agreement between the District and Olivenhain Municipal Water District (OMWD) was prepared. The agreement enables the District to have access to OMWD's hydraulic valve turning equipment services. These services will be utilized to exercise three large valves every six months at the major District pump stations. In return, the District will provide services to clean two of OMWD's pump station wet wells.

The District's Asset Management Plan (AMP) was revised in April 2023. Progress throughout FY23 with respect to the AMP (and other asset planning efforts) is summarized in the Attachment I letter-report at the end of the audit. The District's revised AMP is summarized as well in Attachment I.

The FY23 SOP training schedule can be found in Attachment D and all updated SOPs are included on a CD in Attachment E.

**Section VI (Spill Emergency Response Plan).** An overall update to the District's Spill Emergency Response Plan (SERP), previously titled Overflow Emergency Response Plan (OERP), was completed in FY23. The OERP had been reviewed and revised (as needed) on

an annual basis since the original SSMP adoption in 2009 by the District. Per the new Statewide WDR update, the OERP was required to be updated and implemented as the SERP per the Order's guidance.

**Section VII (Sewer Pipe Blockage Control Program).** Only one spill has been attributable to a FOG sewer pipe blockage since FY11, continuing the District's SSMP determination that a formal FOG control program is not warranted at this time. The District continues to require BMP agreements for all new FSEs as well as further continuing its outreach via newsletters, door hangers, inspections, etc. Additionally, the District is training field staff and conducting inspection of grease interceptors/traps in shopping plazas that show significant corrosion of manholes (42 inspections in FY23). District FSE inspections have included notification of sufficient grease cleaning as well as ensuring that certified grease haulers are being utilized by the FSEs.

**Section VIII (System Evaluation and Capacity Assurance).** The District continues to monitor (and address as necessary) the presence of scale in the Alga Hills area. The area was most recently CCTV inspected in FY23 and is hydrocleaned as deemed necessary. Any defects discovered during the CCTV inspections are incorporated into the District's Repair Priority List.

Inflow domes have been installed in 2,687 of the District's 5,103 manholes to aid in reducing inflow. The District will continue to repair/replace inflow domes as it becomes necessary. Figure 1 shows the locations where inflow domes have been installed throughout the District.

Smoke testing was performed in the Leucadia area FY23. A majority of the defects were found along private laterals and cleanouts.

Flow analyses of the District were conducted as part of the District's 2008, 2013, 2018, and 2023 AMPs. All four documents concluded that estimates of average and peak ultimate flows are within the design values of the District and less than the flows utilized in the District's detailed capacity analyses conducted as part of the 1999 Wastewater Master Plan. There are no capacity-driven replacement projects currently identified for the District. For reference, the current buildout flows for the District are projected to be 4.7 mgd in comparison to the 1999 Master Plan where buildout flows were projected at 6.5 mgd.







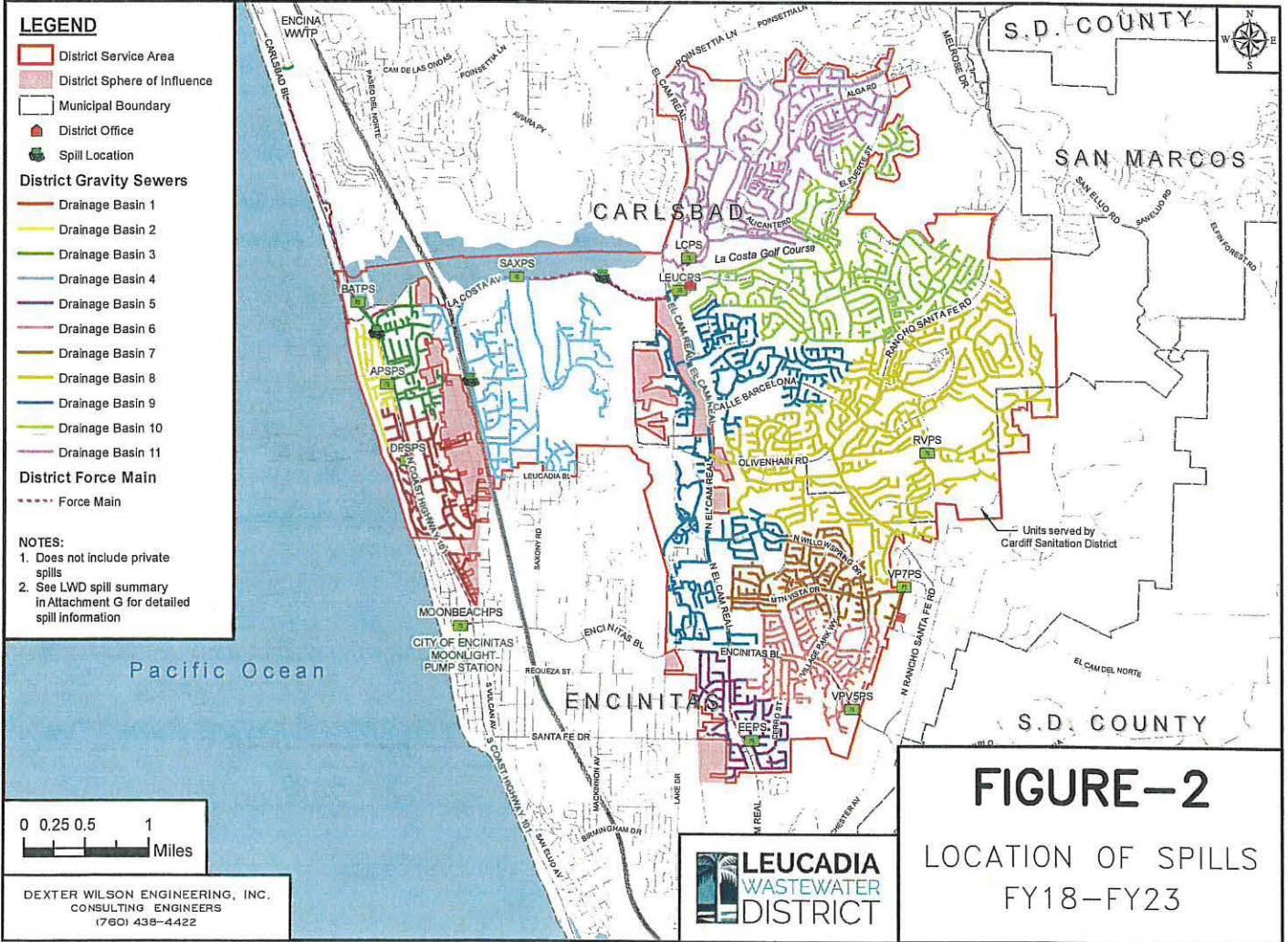
The District's monthly flow comparison for FY22 and FY23 can be found in Attachment F. In comparison to FY22, average daily flows have slightly increased in FY23.

Other FY23 system evaluation activities included the continuance of converting the Inframap data transfer to a cloud-based system.

**Section IX (Monitoring, Measurement, and Program Modifications)**. The District's Spill Summary from the most recent SSMP update in 2018 through June 30, 2023 can be found in Attachment G. No spills occurred in FY23.

Spill review checklists for each spill event are on file at the District office. Figure 2 identifies the location of each spill in a public line or manhole since most recent SSMP update. There were four private lateral spills in FY23 totaling 115 gallons which were all captured and vacuumed up. The District does not own, operate, or maintain laterals that connect into its collection system. The District responds to and assists with the clean-up of private lateral spills as a courtesy to residents. Spill occurrence, volume, and lateral reimbursement continues to decline which demonstrates the District's successful preventative maintenance programs.

**Section XI (Communication Program)**. The District has made the 2019 SSMP and subsequent audits available on its website. The District also actively posts to Facebook to communicate generally with the public. Examples of Facebook posts by the District in FY23 included reminders about the problems that wipes and grease cause in the sewer system, tips on how customers can better maintain their private sewer plumbing, keeping easements clear, and information on District activities such as smoke testing, routine maintenance work/traffic control, etc. Additionally, SSMP updates and SSMP Audits are formally presented to the Engineering Committee and Board of Directors.



### **Recommended SSMP Edits**

Attachment H to this audit document is a place holder for specific edits to the 2019 SSMP; there are no edits/change recommended to the SSMP based on the FY23 Audit. The revisions stemming from the SERP update are included for reference. Future edits, if necessary, will be documented in the SSMP change log (Appendix B of the SSMP and Attachment H of subsequent audits): Future edits/revisions to the SSMP will be evaluated to determine whether or not they are significant enough to warrant re-adoption of the District's SSMP prior to the scheduled August 2, 2025 revision.

### **Summary of Recommendations**

The following section summarizes recommended items as a result of the FY23 Audit:

- Ensure that La Costa Golf Course and La Costa Avenue, Alga Road, and Rancho Santa Fe Road sewers, which all require additional measures (e.g. traffic control, easements, etc.), maintain cleaning/CCTV cycles (See Attachment C, specifically locations 7 and 13). The La Costa Golf Course and Batiquitos influent gravity sewers are recommended to be scheduled for CCTV inspection next.
- Ensure that the planned O&M activities (e.g. hydroclean and CCTV inspect every 5 years) for the Lanikai and Occidental sewer lines are on track (see AMPI memorandum Attachment A). The Occidental sewer line was hydrocleaned by Carlsbad in FY22.
- Complete all applicable scheduled SOP trainings in FY24 (see Attachment D for reference).
- Ensure that revised SERP is implemented and integrated into District training.

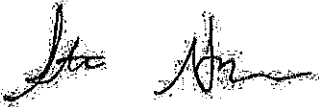
Paul Bushee  
October 20, 2023  
Sewer System Management Plan Fiscal Year 2023 Audit

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**Next Steps**

This SSMP FY23 Audit should be received and filed by the District Board as well as retained for inclusion in the current District's 2019 SSMP. Please be sure to post this FY23 Audit on the District's website and include a hardcopy in the District's 2019 SSMP counter copy. We appreciate the opportunity to have worked with the District on this project. Should you have any questions please do not hesitate to contact us.

Dexter Wilson Engineering, Inc.



Steven Henderson, P.E.

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Attachment(s)