

AGENDA

**ENGINEERING COMMITTEE MEETING
LEUCADIA WASTEWATER DISTRICT**

Tuesday, November 1, 2022 – 9:00 a.m.
Via Teleconference

Pursuant to the State of California Executive Order N-29-20, and in the interest of public health, the District is temporarily taking actions to mitigate the COVID-19 pandemic by holding meetings by teleconference. The general public may not attend this meeting at the District's office due to social distancing requirements.

Members of the public attending via teleconference will be provided with an opportunity to comment on each agenda item prior to Committee discussion.

To join this meeting via Teleconference, please dial: 1-669-900-6833

Meeting ID: 823 1826 1776

Password: 346110

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1. **Call to Order**
 2. **Roll Call**
 3. **Public Comment**
 4. **New Business**
 - A. Receive and file the FY2022 Audit of the District's 2019 Sewer System Management Plan (SSMP) completed by Dexter Wilson Engineering, Inc. (Pages 2 - 12)
 5. **Information Items**
 - A. Development Projects Summary (Pages 13-14)
 6. **Directors' Comments**
 7. **General Manager's Comments**
 8. **Adjournment**

MEMORANDUM

Ref: 23-8228

DATE: October 26, 2022
TO: Engineering Committee
FROM: Paul J. Bushee, General Manager *RH for PJB*
SUBJECT: 2022 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 FY2022 Audit of the District's 2019 Sewer System Management Plan (SSMP) completed by Dexter Wilson Engineering, Inc. (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 has complied with all prescribed provisions, including having a written SSMP that was originally adopted by the District's Board of Directors in 2009. Per the State WDR, the SSMP must be updated every five years and requires each system to audit their SSMP every two years. The District last updated its SSMP in 2019 and conducts annual audits which exceeds regulatory requirements.

The District has retained DWEI to conduct the 2022 SSMP audit. DWEI has 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 a readoption of the SSMP prior to June 2024, the deadline of the next WDR-required 5-year review cycle.

The letter report of the FY2022 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 FY2022 Audit at the meeting.

jms:PJB

Attachment

**LEUCADIA WASTEWATER DISTRICT
SEWER SYSTEM MANAGEMENT PLAN
FISCAL YEAR 2022 AUDIT**

October 20, 2022



10-20-2022

**Prepared by:
Dexter Wilson Engineering, Inc.
2234 Faraday Avenue
Carlsbad, CA 92008**

Job No. 103-019/6

DEXTER WILSON ENGINEERING, INC.

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

October 20, 2022

103-019/6

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
2022 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 two years. The District has decided to conduct annual audits.

The purpose of this letter-report is to present the Fiscal Year 2022 (FY22) Audit (the third audit of the 2019 readoption 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:

- maintain relevant information that can be used to establish and prioritize appropriate SSMP activities,
- monitor the implementation and measure the effectiveness of each element of the SSMP,
- assess the success of the preventative maintenance program,
- update program elements, as appropriate, based on monitoring or performance evaluations, and
- identify and illustrate Sewer System Overflow (SSO) trends, including frequency, location, and volume.

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 SSMP. Minor changes were made to the SSMP to better reflect the District's CCTV inspection procedures of select gravity sewer pipelines more accurately. However, the changes do not necessitate a re-adoption of the SSMP prior to the scheduled June 10, 2024 revision, per the required five 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 SSOs. These audits must occur, at a minimum, every two 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 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 FY22 can be found in Attachment B.

Audit Discussion

The following paragraphs highlight notable elements of the FY22 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 is in the process of being revised. District staff have been active in this process toward reissuance of the WDR including attending a virtual State Water Board workshop in February 2022. There were no new field services staff hired in FY22.

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 FY23.

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. Seventeen additional line segments and two manholes utilized foam treatment for root control in FY22.

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 May 2018. Progress throughout FY22 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 FY22 SOP training schedule can be found in Attachment D and all updated SOPs are included on a CD in Attachment E.

Section VI (Overflow Emergency Response Plan). Minor revisions were made to the OERP (e.g. inclusion of GPS cell phone app in lieu of separate hand held GPS).

Section VII (FOG Control Program). Only one SSO has been attributable to FOG 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 (30 inspections in FY22). 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 FY20 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 2,455 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 manhole locations where inflow domes have been installed throughout the District.

Smoke testing was performed on approximately 13,000 linear feet in FY22. A total of 45 defects were identified. 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, and 2018 AMPs. All three 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 FY21 and FY22 can be found in Attachment F. In comparison to FY21, average daily flows have slightly decreased in FY22.

Other FY22 system evaluation activities included the monitoring of COVID-19 impacts to wastewater flows as well as converting the Inframap data transfer to a cloud-based system.

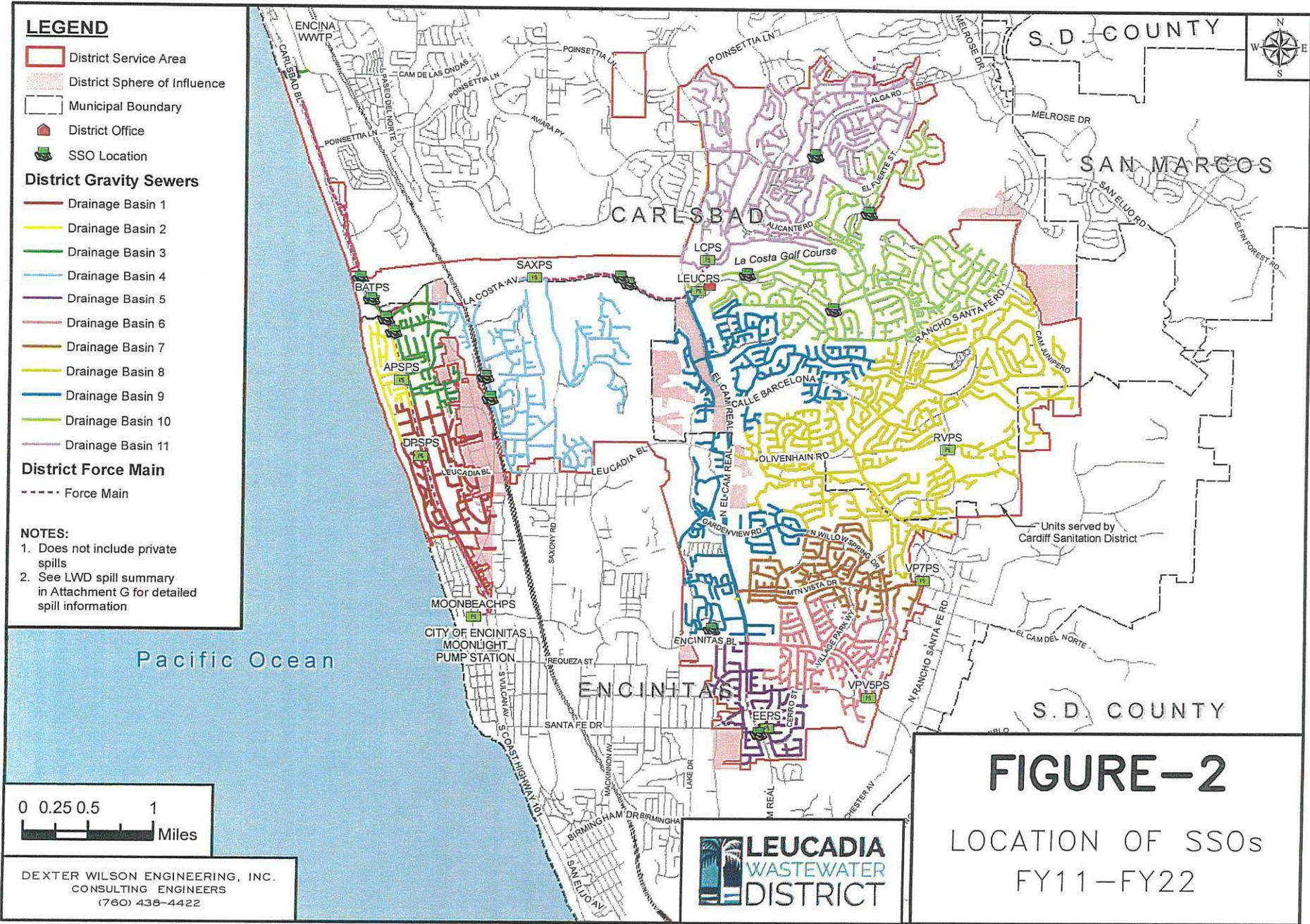
Section IX (Monitoring, Measurement, and Program Modifications). The District's Spill Summary through June 30, 2022 can be found in Attachment G. No spills occurred in FY22.

Spill review checklists for each SSO event are on file at the District office. Figure 2 identifies the location of each spill in a public line or manhole over the last ten years. There were no private lateral spills in FY22. Spill occurrence and volume continues to decline which demonstrates the District's successful preventative maintenance program.

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 FY22 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, a formal SSMP presentation is provided to the Engineering Committee and Board of Directors and is part of those agendas and meeting packets.

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 FY22 Audit. 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 June 10, 2024 revision.



Summary of Recommendations

The following section summarizes recommended items as a result of the FY22 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 FY23 (see Attachment D for reference).

Next Steps

This SSMP FY22 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 FY22 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.

NF:SH:ah

Attachment(s)

New projects this month: 2
 Total active projects: 21

**LEUCADIA WASTEWATER DISTRICT
 Development Services
 Oct-2022**

District Location Code		Project Name	Project Description	Estimated EDUs	Status
1	0929	CASCADA VERDE	Development with Sewer Connection	35	Plans signed. Inspection pending.
2	0943	LEUCADIA STREETScape	Streetscape Plan Check	Public Improvement	Phase 1 approved and under inspection. Further phases in review.
3	1006	Jason Street Storm Drain	Utility Conflict	Public Improvement	Waiting on mylars. Project on hold pending funding.
4	1015	Orpheus Avenue Drainage Improvements	Utility Conflict	Public Improvement	In Review. Provided PC1 and now waiting on City of Encinitas.
5	1032	Weston Annexation - La Costa Avenue	Annexation/Subdivision with Sewer Connection	48	In Review. Waiting on plan submittal.
6	1033	1528 N. Coast Highway	Development with Sewer Connection	14	Plans approved. Inspection ongoing.
7	1058	El Camino Real Building	Development with Sewer Connection	8.2	Plans approved. Construction start (lateral inspection) in progress.
8	1079	City of Encinitas - Leucadia Blvd & Hygela Roundabout	Public Street Improvement	Public Improvement	Plans signed. Inspection pending.
9	1111	Marea Village 1900 & 1950 N Coast Hwy 101	Development with Sewer Connection.	148.9	Preliminary sewer study approved. Waiting on plan submittal.
10	1114	1143 Eolus Avenue Public Sewer Improvement Plan	Public Sewer Improvement	1	In-review.
11	1115	555 & 571 North Vulcan	Public Sewer Improvement	12	Plans signed. Construction/inspection pending.
12	1135	Woodside Development - La Costa Avenue	Development with Sewer Connection	95	Preliminary sewer study approved. Plans In-review..
13	1139	1967 Vulcan Avenue	Development with Sewer Connection	73	Sewer Study and Plans approved. Lateral Inspection pending.
14	1151	Omni La Costa Resort-Spa	Tenant Improvement	Private Improvement Affecting LWD Sewer	In-review.
15	1152	Piraeus Point	Development with Sewer Connection	149	Waiting on sewer study submittal.
16	1153	Thai One On	Tenant Improvement	22	Plans signed. Waiting on BMP.
17	1158	For Giving LLC Annexation - 936 Hymettus Ave	Annexation with Public Sewer Extension	3	Annexation under review.
18	1161	Stits Annexation - 1177 Eolus Avenue	Annexation with Public Sewer Extension	2	Annexation under review.
19	1165	400 Gibraltar Street - APN 216-300-05	Development with Sewer Connection	9	In-review.
20	1166	Chin's Gourmet - 214 N. El Camino Real STE A&B	Tenant Improvement	10	In-review.
21	1167	Board & Brew - 119-A El Camino Real	Tenant Improvement	5	In-review.

DEVELOPMENT PROJECTS

1. Cascada Verde
2. Leucadia Streetscape
3. Jason Street Storm Drain
4. Orpheus Avenue Drainage Improv.
5. Weston Annexation – La Costa Ave.
6. 1528 N. Coast Highway 101
7. 777 N. El Camino Real Building
8. City of Encinitas – Leucadia Blvd/ Hygeia Ave. Roundabout
9. Marea Village – 1900 & 1950 N. Coast Highway 101
10. Aldern Annexation – 1143 Eolus Ave.
11. 555 & 571 N. Vulcan Avenue
12. Woodside Development – La Costa Ave.
13. 1967 N. Vulcan Avenue
14. Omni La Costa Resort-Spa
15. Piraeus Point – Piraeus/Plato
16. Thai One On Restaurant
17. For Giving LLC Annex. – 936 Hymettus Ave.
18. Stits Annexation – 1177 Eolus Avenue
19. 400 Gibraltar Street – APN: 216-300-05
20. Chin's Gourmet – 214 N. El Camino Real
21. Board & Brew – 119-A El Camino Real

