



OJAI VALLEY SANITARY DISTRICT

A Public Agency

1072 Tico Road, Ojai, California 93023

(805) 646-5548

FAX (805) 640-0842

www.ojaisan.org

MEETING OF THE LATERAL INSPECTION PROGRAM COMMITTEE

Date & Time:

September 12, 2013

Thursday, 9:00 a.m.

Location:

OVSD Board Room

1072 Tico Road, Ojai

Members:

Stan Greene

William D. O'Brien

William M. Stone

AGENDA

1. **Select Chairman For The Committee**
2. **Public Comment - (Items not on the agenda - 3 minute limit)**
3. **Private Lateral Maintenance and Damage Assessment**
4. **Discussion**
 - a. Audience
 - b. Committee Members
 - c. General Manager

A staff report providing more detailed information is available for most agenda items, and may be reviewed in the District office during regular business hours. Copies of individual reports may be requested from Brenda Krout (646-5548).

ATTEST TO POSTING:

Brenda Krout - Clerk Of The Board

Sept. 5, 2013 @ 10:30 a.m.

Date & Time Posted At District Office



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September 5, 2013

Board of Directors
Ojai Valley Sanitary District
Ojai, CA 93023

PRIVATE LATERAL MAINTENANCE AND DAMAGE ASSESSMENT

Over the past years, Staff has presented and completed many Inflow and Infiltration (I&I) projects and studies. In 2010, OVSD completed an I&I investigation to identify "likely" areas and causes of I&I. With the passage of the Nutrient (Algae) TMDL, controlling I&I becomes even more important. With exact limits on the number of pounds of nutrients and/or lower discharge concentration limits at the Treatment Plant, excess water from I&I becomes a critical part of reducing the overall discharge of nutrients.

OVSD owns and maintains 120 miles of sewer main, from 6-inch up to 21-inch diameters. General assumptions would indicate that there are an additional 80 miles of private laterals. Studies of I&I within the industry indicate that private laterals may contribute 30-40% of the I&I that a sewer system collects.

OVSD regular average daily flow in dry conditions is approximately 1.5 mgd as is currently being measured. Average daily flows in recent years have averaged 3.0 mgd in wet seasons and 2.0 mgd in dry seasons. This indicates that between .5 – 1.5 mgd of I&I enters the system on a daily basis in normal or wet conditions. In 2005, during a heavy rainstorm, the highest ever recorded flow at the treatment plant exceeded 9.0 mgd, or over 7.5 mgd due to I&I. An extra 1.0 mgd at a concentration of 3.0 mg/l of nitrogen is equal to 25 pounds of nitrogen each day. Extrapolating this over the course of a year would result in a significant nitrogen discharge load.

The Capital Improvement Program identifies projects that will address the I&I in the mainlines, manholes and pump stations. However, the private laterals represent a potential significant additional I&I source.

Section 406 of the District Code requires that each parcel lateral is the responsibility of each parcel owner for maintenance. Maintenance and repair of private laterals has several potential benefits; some that benefit the District as a whole, some that benefit the property owner. Broken, cracked, collapsed, root infested and damaged laterals have the following effects:

1. Result in I&I
2. Potential source of spills
3. Increased repair costs to Owners
4. Mainline blockages due to roots

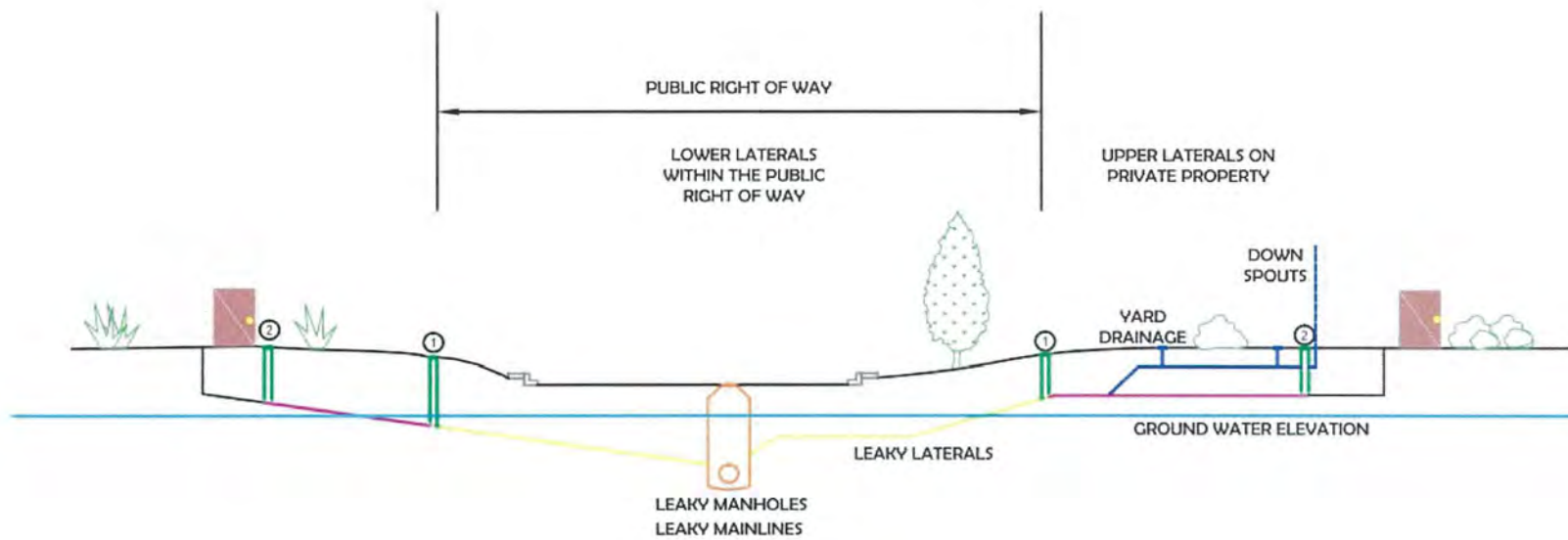
Staff has begun to analyze the potential and likely areas of I&I and other problems in private laterals. Staff has begun to formulate options to address private laterals from video inspections, groundwater elevations, age and type of pipe analysis, mainline and lateral condition assessments, voluntary lateral repair programs and point of sale repair programs. Each of these options has various issues, costs and results.

This first Lateral Committee meeting is intended to familiarize the Committee members of the issues, present videos of the types of issues that Staff has identified and provide a power-point presentation of data for discussion and direction.



Jeff Palmer
General Manager

I&I Reduction Options



- ❓ INSTALL CLEANOUT AT RIGHT OF WAY LINE
- ❓ INSTALL CLEANOUT AT HOUSE
- ❓ SEAL MANHOLES
- ❓ LINE/REPLACE LOWER LATERALS
- ❓ LINE/REPLACE UPPER LATERALS
- ❓ REDUCE ELIMINATE YARD DRAINS AND DOWN SPOUTS

Groundwater Monitoring Well Data

| DATE | SHADY | CHEVRON | STARR | EL PASEO | SIERRA | SARZOTTI | TOPA TOPA | SUMMER |
|------------|-------|----------|-------|----------|--------|----------|-----------|----------|
| Invert El. | 8.0' | 9.5' | 6.5' | 5.0' | 6.5' | 8.0' | 6.5' | 6.5' |
| 1/4/2011 | | 10.52 | 5.33 | 0.5 | 9.35 | 8.23 | 3.7 | 15.35 |
| 2/17/2011 | 3.45 | 14.61 | 5.53 | 2.65 | 10.7 | 8.78 | 4.45 | 15.2 |
| 2/28/2011 | 2.51 | 10.3 | 5.28 | At G.S. | 8.1 | 6.35 | 2.91 | 15.3 |
| 3/18/2011 | 3.36 | Not read | 5.31 | At G.S. | 9.08 | 7.29 | 4 | Not Read |
| 3/21/2011 | 1.75 | 9.73 | 3.58 | At G.S. | 4.7 | 3.3 | 0.5 | 13.4 |
| 3/22/2011 | 1.74 | 9.56 | 4.48 | At G.S. | 4.49 | 3.11 | 1.55 | 11.9 |
| 3/25/2011 | 1.65 | 9.28 | 4.43 | At G.S. | 3.45 | 1.11 | 0.5 | 10.33 |
| 4/7/2011 | 3.02 | 10.14 | 5.06 | At G.S. | 6.86 | 5.03 | 1.58 | 13.63 |
| 4/18/2011 | 3.45 | 10.51 | 5.33 | At G.S. | 8.1 | 6.41 | 1.68 | 15.18 |
| 5/4/2011 | 3.75 | 10.92 | 5.58 | At G.S. | 10.13 | 7.42 | 1.68 | 18.25 |
| 9/15/2011 | 4.73 | Not Read | 7.41 | 7.85 | 14.5 | 10.72 | 4.77 | 20.5 |
| 10/6/2011 | 4.4 | Not Read | 7.71 | 7.22 | Dry | 10.82 | 4.91 | Dry |
| 11/9/2011 | 4.78 | dry | 8 | 8.5 | dry | 11.16 | 6.82 | dry |
| 11/18/2011 | 4.6 | Dry | 8 | 6.53 | Dry | 10.96 | 7.31 | Dry |
| 1/31/2012 | 4.42 | Dry | 7.93 | 8.9 | Dry | 11 | 9.5 | Dry |
| 3/23/2012 | 4.24 | Dry | 7.83 | 8.58 | Dry | 10.98 | 10.2 | DRy |
| 3/26/2012 | 3.58 | Dry | 7.55 | 7.48 | Dry | 10.8 | 9.1 | Dry |
| 4/4/2012 | 4.1 | Dry | 6.47 | 8 | Dry | 10.5 | 9.55 | Dry |
| 4/16/2012 | 3.51 | Dry | 6.31 | 6.58 | Dry | 10.14 | 8.57 | Dry |
| 4/25/2012 | 4.05 | dry | 5.94 | 6.95 | Dry | 10.14 | 9.03 | Dry |
| 9/28/2012 | 6.9 | Dry | 8.8 | 10.1 | Dry | 14.3 | 12.1 | Dry |
| 12/17/2012 | 5.85 | DRy | 8.8 | Not Read | Dry | 12.75 | 12.95 | Dry |
| 1/8/2013 | 6 | Dry | 8.32 | Not Read | Dry | 13.62 | 12.95 | Dry |

- Pipe submerged by 1' gw
- Pipe submerged between 1' and 3' by gw
- Pipe submerged over 3' by gw
- Groundwater already starting to rise due to the rain this year, even the generally light drizzle affects GW

Note:

1. Groundwater monitoring has been underway since 2008 using existing wells around town