



City of Rancho Palos Verdes

2013 Infrastructure Report Card

Evaluation of Sanitary Sewer System and Abalone Cove District Sewer System



Evaluation Strategy

Grading Shall be the Opinion of the Consultant Based on the Following Approach:

- Meet with City Staff (Kickoff Meeting)
- Gather Required Information (i.e. Data, Reports, etc)
- Visit Various Facility Sites
- Review Provided Information
- Evaluate Current Infrastructure Condition and Determine "Draft" Grade
- Discuss Analysis of Data and Obtain Written and Verbal Elaborations on Current Infrastructure Conditions from City Staff
(that Amend or Expand Written Report Data)
- Re-Evaluate Current Infrastructure Conditions and Draft Grade
(Based on Increased Understanding of Infrastructure Conditions from City Staff)
- Prepare Draft Report Summarizing the Infrastructure Conditions and Provide a Revised Grade (if Different from "Draft" Grade Above)
- Meet with City to Review Draft Report & Obtain Comments from City Staff
- Finalize Report Based on Comments from City and Provide Final Grade

Kickoff Meeting with City Staff

➤ June 12, 2013

➤ Attendees:

Siamak Motahari
Bindu Vaish
Nicole Jules
Ron Dragoo
Andy Winje
Nadia Carasco

➤ Ron Dragoo and Andy Winje Provided Information on The Overall Sewer System and the Abalone Cove District Sewer System Following the Kickoff Meeting.

Data/Information Evaluated

- 2009 Master Plan Update (Report)
- 2009 County Condition Assessment (partial)
- Abalone Cove Sewer Maintenance Fee Annual Reports (2010-2013)

Site Visits

- June 19th
- September 24th

Visited Various Sewer Sites throughout City

Photos from Site Visits (June 19, 2013 Site Visit:)

Calle Entradero Sewer Station



Abalone Cove District Facilities



Photos from Site Visits (September 24, 2013 Site Visit:)

Calle Entradero Sewer Station



Laurel Drive Sewer Station



Review of Provided Data/Reports

- 2009 Master Plan Update (Report)
Determined: Overall aspects of sewer system (150 miles of sewer lines; 3,707 manholes), land topography, number of lift stations, age of pipes, material of pipes, and planned CIP improvements
- 2009 County Condition Assessment (partial)
Determined: Condition of pipes in a portion of the overall sewer system
- Abalone Cove Sewer Maintenance Fee Annual Reports (2010-2013)
Determined: Annual maintenance costs of Abalone Cove sewer system (i.e. \$93,300 for 2013)

Preliminary Evaluation

Evaluation Criteria:

- Capacity of Infrastructure
As it relates to transmission of wastewater flows
- Structural Condition of Infrastructure
As it relates to operation and maintenance
- Environmental Sustainability and Safety of Infrastructure
As it relates to ensuring sanitary conditions and an aesthetic City landscape

Preliminary Evaluation (cont.)

"Draft" Grades

Overall Sewer System

Capacity of Infrastructure: **C (78%)**

Structural Condition of Infrastructure: **D (62%)**

Environmental Sustainability of Infrastructure: **C (77%)**

Overall Grade: C (72%)

Abalone Cove Sewer System

Capacity of Infrastructure: **C (78%)**

Structural Condition of Infrastructure: **D (66%)**

Environmental Sustainability of Infrastructure: **B (76%)**

Overall Grade: C (71%)

Progress Meeting

July 30, 2013 and August 8, 2013

Progress Meeting were held on above dates.

Data Evaluation and "Draft" Grades were discussed with City staff. Current condition of overall sanitary sewer system and Abalone Cove District sewer

system were discussed. Data presented in 2009 Master Plan Update was general but not very specific. Some portions of the sewer system were still lacking and some CIP projects have not yet been implemented. Funding concerns were also discussed, especially with the Abalone Cove District Sewer System (O&M Costs were very high), along with the current user fee status.

Re-Evaluation of Sewer System, Report Preparation, and Final Grade Determination

Final Grade of Sewer System based on review of existing data, site visits, and discussions with City staff, is shown on spreadsheet breakdown on the following page:

Evaluation of Sewer System

Criteria 1: The capacity of infrastructure as it relates to transmission of wastewater flows

<u>No.</u>	<u>Subcriteria</u>	<u>Score</u>	<u>Comments</u>
1	Overall Coverage of Sewer Facilities	8	Good coverage throughout City
2	Size/sufficiency capacity of sewer lines	8	Only a small % require capacity upgrades
3	Redundancy of sewer lines	8	Over 1 foot of sewer per foot of roadway
4	Capacity & Efficiency of Lift Stations	8	Good capacity/efficiency
5	Cost of current or pending capacity improvements	5	City has made 1.3 mi of improvements since 04
Average Score		7.4	"C" Grade

Criteria 2: The structural condition of infrastructure as it relates to operation & maintenance

<u>No.</u>	<u>Subcriteria</u>	<u>Score</u>	<u>Comments</u>
1	Overall structural condition of sewer facilities	7	Some maintenance/structural deficiencies
2	Quantity of maintenance/structural problems	6	Moderate # of maintenance/structural need locations
3	Severity of maintenance/structural problems	6	No gasketed joints/root intrusion & cracking
4	Safety concerns of structural/maintenance problems	6	Potential for sewer backups/spills (5 spills in 2009)
5	Cost of structural/maintenance problems	5	Costs are moderate over the near term
Average Score		6.0	"D" Grade

Criteria 3: The environmental sustainability & safety of infrastructure as it relates to ensuring sanitary conditions and an aesthetic City landscape

<u>No.</u>	<u>Subcriteria</u>	<u>Score</u>	<u>Comments</u>
1	Overall aesthetic/environmental utilization/enhancement	8	Overall good utilization/enhancement
2	Safety design/location of sewer facilities/manholes	6	Overall Decent
3	Slope of sewer lines for proper scour/cleaning velocity	9	Good slope/flow velocity
4	Odor Concerns/Problems	8	Master Plan does not specifically mention "odor"
5	Cost of cleaning/maintenance	6	City routinely cleans and inspects
Average Score		7.4	"C" Grade

Total Average Score	6.9	"D" Grade
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Final Grade: "D"

Evaluation of Abalone Cove Sewer System

Criteria 1: The capacity of infrastructure as it relates to transmission of wastewater flows

No.	Subcriteria	Score	Comments
1	Overall Coverage of Sewer Facilities	9	Good coverage throughout City
2	Size/sufficiency capacity of sewer lines	8	Only a small % require capacity upgrades
3	Redundancy of sewer lines	7	Decent Redundancy
4	Capacity of Lift Stations	8	Good capacity
5	Cost of current or pending capacity improvements	5	Abalone Cove Requires consistent maintenance
Average Score		7.4	"C" Grade

Criteria 2: The structural condition of infrastructure as it relates to operation & maintenance

No.	Subcriteria	Score	Comments
1	Overall structural condition of sewer facilities	7	Some maintenance/structural deficiencies
2	Quantity of maintenance/structural problems	6	Moderate # of maintenance/structural need locations
3	Severity of maintenance/structural problems	8	No gasketed joints/root intrusion & cracking
4	Safety concerns of structural/maintenance problems	6	Potential for sewer backups/spills
5	Cost of structural/maintenance problems	5	Abalone Cove Requires consistent maintenance
Average Score		6.4	"D" Grade

Criteria 3: The environmental sustainability & safety of infrastructure as it relates to ensuring sanitary conditions and an aesthetic City landscape

No.	Subcriteria	Score	Comments
1	Overall environmental utilization/enhancement	6	Overall decent utilization/enhancement
2	Safety design/location of sewer facilities/manholes	7	Overall Decent
3	Slope of sewer lines for proper scour/cleaning velocity	7	Moderate slope/flow velocity
4	Odor Concerns/Problems	8	Master Plan does not mention "odor"
5	Cost of cleaning/maintenance	5	City routinely cleans and inspects
Average Score		6.6	"D" Grade

Total Average Score	6.8	"D" Grade
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Final Grade: "D"