



City of Rancho Palos Verdes

2013 Infrastructure Report Card

Evaluation of Storm Water 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 Storm Drain System Following the Kickoff Meeting.

Data/Information Evaluated

- 2004 Master Plan of Drainage Update (Report)
- 2004 Master Plan of Drainage Update (Atlas Maps)
- 1999 Storm Drain Priority Lists Spreadsheets
- 2011 Drainage Master Plan Development Program
- Current GIS Data (Spreadsheet Data)

Site Visits

- June 19th
- June 20th

Visited Various Storm Drain Sites in Ocean South and Ocean West Drainage areas along Palos Verdes Drive South, Including McCarrell Canyon Storm Drain.

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

Drainage Facilities Near Pacifica Del Mar



McCarrell Canyon Facilities



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

McCarrell Canyon Facilities



Drainage Facilities in Abalone Cove



San Ramon Canyon Stormwater Flood Reduction Project



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

San Ramon Canyon Stormwater Flood Reduction Project



Review of Provided Data/Reports

- **2004 Master Plan of Drainage (Report)**
Determined: Overall aspects of drainage system, land topography, drainage areas/basins, hydrology, and planned CIP improvements
- **2004 Master Plan of Drainage (Atlas Maps)**
Determined: 8 Discharge outlets to Ocean
- **Current GIS Data (Spreadsheets)**
Determined: 12 miles of SD lines
(3.4 mi of CMP; 7.2 mi of RCP/RCB; 0.4 mi of Steel; 0.3 mi of SRP; 0.1 mi of ACP; 0.6 mi "other")

Preliminary Evaluation

Evaluation Criteria:

- **Capacity of Infrastructure**
As it relates to flood prevention
- **Structural Condition of Infrastructure**
As it relates to operation and maintenance
- **Environmental Sustainability of Infrastructure**
As it relates to preserving the natural landscape and wildlife when operating, maintaining, and improving stormwater infrastructure

Preliminary Evaluation (cont.)

"Draft" Grades

Capacity of Infrastructure: **B (84%)**

Structural Condition of Infrastructure: **C (74%)**

Environmental Sustainability of Infrastructure: **B (84%)**

Overall Grade: B (81%)

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 storm water system was discussed. Data presented in 2004 Drainage Update was a little behind/outdated. Some portions of the storm water system were still lacking and some CIP projects have not yet been implemented. Funding concerns were also discussed, along with the current user fee status.

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

Final Grade of Storm Water 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 Storm Drain System

Criteria 1: The capacity of infrastructure as it relates to flood prevention

No.	Subcriteria	Score	Comments
1	Overall Coverage of Drainage Facilities	8	Good coverage throughout City
2	Size/sufficiency of storm drain lines	9	Only a small % require capacity upgrades
3	Redundancy of storm drain system	8	Multiple medium drains versus fewer large ones
4	Culvert coverage on major streets	8	Good coverage on PVDS
5	Cost of current or pending capacity improvements	7	City has made 1.3 mi of improvements since 04
Average Score		8	"B" Grade

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

No.	Subcriteria	Score	Comments
1	Overall structural condition of drainage facilities	8	Overall decent condition of facilities
2	Quantity of maintenance/structural problems	6	Moderate among of structural needs
3	Severity of maintenance/structural problems	8	Mostly spot repairs needed; not full replacement
4	Safety concerns of structural/maintenance problems	7	Some torn/cut CMP along roadways/bike paths
5	Cost of structural/maintenance problems	8	City routinely checks and repairs damaged pipes
Average Score		7.4	"C" Grade

Criteria 3: The environmental sustainability of infrastructure as it relates to preserving the natural landscape and wildlife when operating, maintaining, and improving stormwater infrastructure.

No.	Subcriteria	Score	Comments
1	Overall environmental utilization/optimization	9	Overall great utilization/enhancement
2	Location of drainage facilities in relation to landscapes	9	Drainage facilities blend in (not eyesore)
3	Use of natural features to extent practical	9	Great use of natural channels/canyons
4	Drainage improvements protect existing landscapes	8	Drains both protect and affect landscapes
5	Cost of cleaning/maintenance	7	City routinely cleans and inspects
Average Score		8.4	"B" Grade

Total Average Score 7.9 "C" Grade

Final Grade: "C"