

AGENDA
NEWPORT BAY WATERSHED EXECUTIVE COMMITTEE

September 19, 2012
1:30 – 3:30 p.m.

Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

John M. W. Moorlach, Chair
County of Orange

Peer Swan, Vice Chair
Irvine Ranch Water District

Jeff Lalloway
City of Irvine

Claudia Alvarez
City of Santa Ana

Kathryn McCullough
City of Lake Forest

Fred Ameri
Santa Ana Regional Water Quality Control
Board

Al Murray
City of Tustin

Nancy Gardner
City of Newport Beach

Ed Pert
California Department of Fish and Game

Wendy Leece
City of Costa Mesa

Sat Tamaribuchi
The Irvine Company

Meeting information available at
www.ocwatersheds.com/NewportBay_ExecComm.aspx

The Newport Bay Watershed Executive Committee welcomes you to this meeting and encourages your participation. This agenda contains a brief general description of each item to be considered. Except as otherwise provided by law, no action shall be taken on any items not appearing in the following agenda. However, items may be taken up in a different sequence. Any member of the public may ask the Executive Committee to be heard on the following items, as those items are called. Those persons addressing the Executive Committee are requested to give their names for the record.

Discussion Calendar 1-4

ITEM # 1. MINUTES OF THE MAY 16, 2012 MEETING

Recommended Action: Approve the minutes of the May 16, 2012 meeting.

ITEM # 2. INTEGRATED REGIONAL WATER MANAGEMENT PLAN UPDATE

Staff will present the draft final Central Orange County Watershed Management Area Integrated Regional Water Management Plan.

Recommended Action: Approve

ITEM # 3. UPDATE ON ONE WATER ONE WATERSHED PLAN

Staff from SAWPA will provide an update on the Regional Integrated Regional Water Management Plan.

Recommended Action: Receive and file

ITEM # 4. SERRANO CREEK TOUR

Staff will present a slideshow with highlights from the Serrano Creek tour conducted on May 19, 2012.

Recommended Action: Receive and file

Consent Calendar, Items 5-7

The Staff Report contains written updates on projects. All matters are approved by one motion unless pulled by a Board Member for discussion for separate action. At this time, any member of the public may ask the Board to be heard on any item on the Consent Calendar.

ITEM # 5. TOTAL MAXIMUM DAILY LOAD (TMDL) UPDATE

The Executive Officer will provide an update on the status of the TMDL's in the Central WMA.

Recommended Action: Receive and file

ITEM # 6. GROUNDWATER/SURFACE WATER BALANCE STUDY

The staff report provides a status of the Water Balance Study.

ITEM # 7 SANTA ANA DELHI STUDY

The City of Santa Ana, in conjunction with the Cities of Newport Beach and Costa Mesa, are currently developing conceptual engineering for a proposed urban discharge diversion facility.

ITEM # 8. EXECUTIVE COMMITTEE MEMBER COMMENTS

ITEM # 9. PUBLIC COMMENTS

ITEM # 10. ADJOURNMENT

Next meeting date: November 21, 2012

AGENDA STAFF REPORTS
NEWPORT BAY WATERSHED EXECUTIVE COMMITTEE
SEPTEMBER 19, 2012

DISCUSSION CALENDAR, ITEMS # 1 - 4

ITEM # 1. MINUTES OF THE MAY 16, 2012, MEETING

Recommended Action: Approve the minutes of the May 16, 2012 meeting as follows.

Date and Location: May 16, 2012, 1:44 p.m. – 2:07 p.m.
Foothill Ranch Library
27002 Cabriole Way, Foothill Ranch CA 92610

Participants: John M. W. Moorlach, Board of Supervisors and Committee Chair
Peer Swan, Irvine Ranch Water District and Vice Chair
Nancy Gardner, City of Newport Beach
Kathryn McCullough, City of Lake Forest
Al Murray, City of Tustin
Fred Ameri, Santa Ana Regional Water Quality Control Board
Amanda Carr, City of Irvine
Sat Tamaribuchi, Irvine Company

Agenda Item 1 – Minutes of the March 21, 2012 Meeting

The minutes of the March 21, 2012 meeting were presented to the Executive Committee.

Motion: Approve minutes for March 21, 2012
First/Second: Ms. McCullough/Mr. Murray
Outcome: Approved

Agenda Item 2 – TMDL Program Update

Ms. Skorpanich presented an update on the discussions with the Santa Ana Regional Board staff regarding the Sediment TMDL. Discussion topics included requests to modify the monitoring and reporting requirements to account for program achievements and changed conditions in the watershed. These discussions have been progressing in a very positive manner with a response expected in the near future. Other TMDL programs that are ongoing in the Newport Bay Watershed include the renewal of a cooperative agreement that will expire on June 30, 2012.

There are fourteen participants who have been engaged in formulating a new agreement to fund compliance activities since August 2011. Provisions in this cooperative agreement continue to include review of the annual budget and work plan that the partners will approve. Consensus was recently reached on this cooperative agreement and it will be sent out for review and approval by the respective boards, councils or management for acceptance.

Agenda Item 3 - Executive Committee Member Comments

Ms. McCullough thanked everyone for participating in the Serrano Creek tour. She introduced Tom Wheeler, Public Works Director for the City of Lake Forest. She also noted that the Borrego Wash, another large sediment source in the City of Lake Forest, will be stabilized by Shea Baker.

Mr. Swan requested an additional tour stop at an area north of the 241 that is a flood retention basin he expressed the importance of this area to the Serrano Creek issue.

Agenda Item 4 - Public Comments

There were no public comments.

Agenda Item 5 - Serrano Creek Tour

Mr. Wheeler provided a short presentation about the tour of Serrano Creek. The tour will focus on the Serrano Creek subwatershed starting adjacent to Etnies Lake Forest Skate Park and will proceed downstream with stops at the Pedestrian Bridge and Autumnwood Homeowners Association, concluding with a final stop slightly upstream of the Bake Parkway crossing time permitting.

Agenda Item 6 - Adjournment

Meeting adjourned at 2:07 pm for tour.

Attendees:

- Alex Waite, City of Tustin
- Dave Webb, City of Newport Beach
- Dean Kirk, Irvine Company
- Devin Slaven, City of Lake Forest
- Doug Shibberu, Santa Ana Regional Water Quality Control Board
- Mark Tettermer, Irvine Ranch Water District
- Matt Rayl, Serrano Creek Ranch
- Patrick Bauer, City of Costa Mesa
- Phil Jones, County of Orange
- Robert Woodings, Citizen
- Roger Mallet, Newport Bay Conservancy
- Pamela Newcomb, County of Orange
- Tom Wheeler, City of Lake Forest

Committee Staff, County of Orange:

Mary Anne Skorpanich

Chris Crompton

Beatrice Musacchia

ITEM # 2. INTEGRATED REGIONAL WATER MANAGEMENT PLAN UPDATE

The purpose of the Central Orange County Watershed Management Area (WMA) Integrated Regional Water Management Plan (IRWMP) is to provide a bridge between existing and developing watershed planning efforts, allowing more effective collaboration and more opportunities to leverage agency resources across jurisdictions. Extensive development and implementation of water resource programs has occurred in this region over the past three decades, with agency partnerships, agreements, and the formation of a formal structure for stakeholder involvement. The water quality issues in this region are daunting, with eight water body segments listed on the State Water Resources Control Board 2010 Section 303(d) list and total maximum daily loads (TMDLS) for nutrients, fecal coliform bacteria, sediment, toxic pollutants, and organophosphate pesticides and more pending. While the agencies in the region have collaborated extensively on water importation, groundwater management, and flood protection, water quality has been the overarching issue that has brought the water resource and land use agencies, environmental groups, and other stakeholders within the region together in the spirit of integration. Public agencies and private interests have entered into numerous cooperative agreements to leverage financial resources for the development of programs that implement studies, best management practices, and other control measures that are consistent with the regulatory requirements and regional goals for watershed conditions. Key components of the IRWMP are the following:

- Central Orange County WMA
- Issues related to and priorities for the WMA
- Goals and objectives for the WMA
- Strategies for meeting the identified goals and objectives
- Current efforts within the watershed
- Ways to evaluate the IRWMP and update it as necessary

This Phase III IRWM Plan is a compilation and revision of the first two IRWM Plans; the information contained in the Phase I and Phase II plans was used as a foundation for the Phase III plan. The Phase III Plan was developed to meet the Proposition 84 guidelines.

Recommended Action: Approve

ITEM # 3. UPDATE ON ONE WATER ONE WATERSHED PLAN

The OWOW 2.0 plan update for the Santa Ana River Watershed consists of four distinct functional work efforts. First, the data in the plan is being reviewed and updated. Conclusions made based on previous data sets are being reviewed and updated by the Pillar Groups. In addition, the Pillar Groups are identifying any gaps in the previous plan that need to be addressed. For example, coastal resources were not adequately described in the previous plan and updated material is being developed.

The second aspect of the OWOW update is based on the development of integrated, multi-benefit projects for the region. These projects will address systemic deficiencies and reduce overall costs for the region. For example, restoring natural hydrologic function as much as possible, will increase groundwater recharge, reduce surface water pollution and provide habitat for riparian species. The OWOW Pillar leaders participated in a series of facilitated meetings to produce a “white paper” containing examples of these sorts of projects.

Thirdly, the OWOW process is intended to provide incentives for the implementation of multi-benefit projects. Currently, there is a call for projects for approximately \$16 M in project funding. The project eligibility and selection criteria have changed somewhat from the first round of funding to further encourage the development of cooperative, multi-benefit projects. The deadline for on-line project submittal is October 1.

Finally, the OWOW 2.0 update will include a reporting mechanism to track the watershed’s progress toward its goals. This “report card” will provide a useful tracking tool for decision makers and provide assistance in allocating funds to future watershed projects to keep them in line with the region’s priorities.

Funding for the Tier 2 Grant Program will begin in Fiscal Year 2011-12 via bonding with up to \$38 million allocated through Fiscal Year 2014-15. Beyond Fiscal Year 2014-15, funding will be based on a pay-as-you-go basis. To further augment the amount of total funding available to all interested eligible jurisdictions, a 50 percent matching fund will be required of the total project costs.

Recommended Action: Receive and file.

ITEM #4. SERRANO CREEK TOUR

At the May 19, 2012 Newport Bay Executive Committee Meeting your Board participated on a tour of Serrano Creek subwatershed that started adjacent to Etnies Lake Forest Skate Park then continued downstream with stops at the Pedestrian Bridge and Autumnwood Homeowners Association. The slide show presentation highlights the various stops made during the tour.

Recommended Action: Receive and file.

CONSENT CALENDAR, ITEM # 5-7

The Staff Report contains written updates on projects. All matters are approved by one motion unless pulled by a Committee Member for discussion for separate action. At this time, any member of the public may ask the Committee to be heard on any item on the Consent Calendar.

ITEM #5. TOTAL MAXIMUM DAILY LOAD (TMDL) UPDATE

In 1998 the Santa Ana Regional Water Quality Control Board (Santa Ana Regional Board) began detailed evaluation of water quality in the Newport Bay watershed as a result of a number of water bodies being listed as water quality limited under Section 303 of the federal Clean Water Act. As required by the Clean Water Act, Total Maximum Daily Loads (TMDLs) have been established for four general pollutant categories (sediment, nutrients, fecal coliform, and toxics) to date. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. It sets the amount of pollutant that needs to be reduced and assigns responsibility for the reduction.

Following state ratification of the TMDLs, the Santa Ana Regional Board issued requests for monitoring and technical reports to the County of Orange, Cities of Costa Mesa, Irvine, Laguna Hills, Laguna Woods, Lake Forest, Newport Beach, Orange, Santa Ana, and Tustin (Newport Watershed Permittees) and The Irvine Company pursuant to its authority under Section 13267 of the State Water Code. Over a period of time the Santa Ana Regional Board has written TMDL requirements into National Pollutant Discharge Elimination System (NPDES) permits, including the 2009 Municipal NPDES Stormwater Permit for cities, the County, and the OC Flood Control District.

The following outlines the Newport Bay Watershed TMDL requirements, current status and activities:

Nutrient TMDL

The Nutrient TMDL for the Newport Bay/San Diego Creek Watershed was adopted as an amendment to the Basin plan by the Santa Ana Regional Board on October 9, 1998.

TMDL Requirements:

The nutrient TMDL establishes targets for reducing the annual loading of nitrogen and phosphorus to Newport Bay by 50% and meeting the numeric and narrative water quality objectives by 2012. The TMDL establishes a number of interim targets requiring a 30% and 50% reduction in nutrients in summer flows by 2002 and 2007, respectively, and a 50% reduction in non-storm winter flows by 2012.

September 2012 Update:

Monitoring program findings have indicated significant compliance with the 2002, 2007 and 2012 overall TMDL targets. Watershed wide improvement in nutrient and algae was cited by the Regional Board and United States Environmental Protection Agency (USEPA) as one of eleven 'success stories' in USEPA Regional IX.

Compliance Category	Compliance Target in 2002	Compliance Target in 2007	Compliance Target in 2012	Most Recent Finalized Loads
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Total Nitrogen – Summer Load (Apr-Sept)	200,097 lbs.	153,861 lbs.	N/A	42,042 lbs. (Apr-Sept 2010)
Total Nitrogen – Winter Load (Oct-Mar)	N/A	N/A	144,364 lbs.	71,897 lbs. (Oct 2010-Mar 2011)
Total Phosphorus Annual Load (Oct-Sept)	86,912 lbs.	62,080 lbs.	N/A	65,971 lbs. (Oct 2009-Sep 2010)
Urban Allocation Total Nitrogen Summer Load (Apr-Sept)	20,785 lbs.	16,628 lbs.	N/A	19,618 lbs. (Apr-Sept 2010)
Urban Allocation Total Nitrogen – Winter Load (Oct-Mar)	N/A	N/A	55,442 lbs.	17,475 lbs. (Oct 2010-Mar 2011)
Urban Allocation Total Phosphorus Annual Load (Oct-Sept)	4,102 lbs.	2,960 lbs.	N/A	12,061 lbs. (Oct 2009-Sep 2010)

Data reports are submitted to the Regional Board quarterly. The last quarterly data report, covering data from January through March 2012, was submitted to the Regional Board on July 16, 2012. The annual total phosphorus load for October through September 2010 was slightly above the 2007 target, primarily due to an unusually heavy storm in January 2010. This anomalous result was explained in greater detail in the quarterly report submitted to the Regional Board on January 18, 2011. The cumulative load from urban sources for total phosphorus from October through September 2010 was also above the 2007 target. Data analysis shows a strong correlation between total phosphorus loading and total rainfall. It is estimated that achieving the Phosphorus Urban Allocation targets would require sustained drought conditions. Therefore, either the Urban Allocation is not assessed properly (i.e., the monitoring program is not measuring urban vs. other sources accurately) or the Urban Allocation needs to be reevaluated.

Sediment TMDL

The State of California approved the Sediment TMDL for the Newport Bay Watershed in March 1999.

TMDL Requirements:

- The Sediment TMDL targets are to reduce the annual average sediment load in the San Diego Creek watershed from a total of 250,000 tons per year to 125,000 tons per year, thereby reducing the sediment load to Newport Bay to 62,500 tons per year within 10 years (a 50% reduction); to lower the frequency of dredging within the Bay; and to maintain habitat types within the Bay.

- Two annual reports are required each year, one verifying that the watershed sediment basins have at least 50% capacity, the other presenting a compilation of sediment monitoring data and an analysis of TMDL compliance.
 - The 2011 Newport Bay Watershed Sediment TMDL Basin Capacities Report shows that the current sediment capacity of all basins is greater than 50% and meets the targets established by the sediment TMDL.
 - Evaluation of compliance with the sediment reduction target is determined on a 10-yr running average, not on a yearly basis, since annual sediment deposition can vary widely based on weather and other conditions. To date the 10-yr running average of suspended sediment loading, covering the period of 2002-2011, as measured at the San Diego Creek at Campus monitoring station is approximately 51,056 tons per year and meets the target.

September 2012 Update:

A compliance study of the suspended sediment monitoring data collected since the TMDL was adopted was completed earlier this year. Final comments are being addressed and a final report is expected soon. The study shows compliance with the 50% reduction target is being achieved and highlights that sediment concentrations have progressively declined at several monitoring stations. The report recommends removal of monitoring stations that are no longer representative of their original land use type and those that are insignificant contributors. Efforts to modify the Monitoring Program for the sediment TMDL have been underway with Regional Board staff.

A small study looking at potential available long term funding options for future maintenance of the Upper Newport Bay Basins is set to begin. The study will document existing funding sources and options and will look at the possibilities of developing new funding options and partnerships.

Survey field work is underway to determine the available capacity of the in-channel basins within San Diego Creek. The Basin Capacities Report for 2012 will be submitted to the Regional Board on November 15, 2012.

Fecal Coliform TMDL

The State of California approved the Fecal Coliform TMDL for Newport Bay on December 30, 1999.

TMDL Requirements:

The Fecal Coliform TMDL established a long-term, prioritized, phased approach to meeting recreational contact (REC-1) by December 30, 2013 and shellfish harvesting (SHELL) water quality standards by December 30, 2019 in Newport Bay. The TMDL requires a series of investigations and studies intended to result in the development of a TMDL implementation plan.

September 2012 Update:

A Source Management Plan for sources of fecal coliform was completed and submitted to the Santa Ana Regional Board in fulfillment of requirements of a Prop. 13 grant. A report recommending revisions to the TMDL is expected to be finalized by the end of 2012.

Toxics TMDLs

On June 14, 2002, EPA Region 9 established the Toxics TMDL for San Diego Creek/Newport Bay.

TMDLs Requirements:

The Santa Ana Regional Board is currently dividing the EPA Toxics TMDL into five separate constituent and geographically specific TMDLs. TMDL requirements will vary by constituent and TMDL as they are developed:

- Diazinon and Chlorpyrifos (pesticides) TMDL status: approved by State and EPA. TMDL targets are being met through the ban on use of the pesticides. However, due to their short half-lives, diazinon and chlorpyrifos have been consistently below detection limit recently. Therefore, no further activity is anticipated for this TMDL.
- Organochlorine Compounds (e.g., legacy pesticides such as DDT) TMDL status: approved by Santa Ana Regional Board, pending approval by State Water Resources Control Board
- Selenium TMDL status: consideration by Santa Ana Regional Board in 2013
- Selected heavy metals TMDL status: in development
- Rhine Channel in Lower Newport Bay (primarily for metals) TMDL status: A dredging project to remove contaminated sediment has been completed by the City of Newport Beach. Clear and positive water and sediment quality improvements have been identified and these improvements could render a separate TMDL unnecessary. A post-dredging monitoring program has been prepared and executed to establish a new water quality baseline.

September 2012 Update:

Selenium: The Nitrogen and Selenium Management Program (NSMP) was established in 2004 to comprehensively assess nitrogen and selenium processes and best management practices. Current work efforts include:

- A Time Schedule Order was adopted on December 10, 2009 by the Santa Ana Regional Board in December to allow ongoing dewatering discharges.
- NSMP is assisting the Regional Board on revising the draft Selenium TMDL anticipated to be considered by the Santa Ana Regional Board in 2013.
- NSMP is evaluating the implementation requirements for the draft Selenium TMDL and engaging Regional Board staff and its legal counsel in the discussion of compliance strategies.
- On September 3, 2012, Cities of Irvine and Tustin, Transportation Corridor Agency, Orange County Flood Control District, and Irvine Ranch Water District jointly applied OCTA Environmental Cleanup Program Tier 2 Grant for the Peters Canyon Wash Water Capture and Reuse Pipeline Project. The estimated grant amount is \$8.68 million.
- On September 3, 2012, Cities of Santa Ana, Newport Beach, Costa Mesa, and Orange County Flood Control District jointly applied OCTA Environmental Cleanup Program Tier 2 Grant for the Santa Ana Delhi Channel Diversion Project. The estimated grant amount is \$4.29 million.

- City of Newport Beach has retained Daniel B. Stephens & Associates and Weston Solutions to conduct water balance studies for the Big Canyon Wash watershed. The results of the investigation will help guide future watershed-wide selenium management measures.

Organochlorine Compounds: The TMDL implementation plan allows for the development of a working group of stakeholders to develop a work plan of tasks to achieve the TMDL targets and address broader toxicity issues within the watershed. The Toxicity Reduction and Investigation Program (TRIP) Working Group was formed in October 2007 and has two primary work products:

- An Independent Advisory Panel was convened to review and comment on the targets set in the TMDL. The final report of the Independent Advisory Panel entitled, “Final Report of the April 7-8, 2009 Meeting of the Independent Advisory Panel for the Assessment of TMDL Targets for Organochlorine Compounds for the Newport Bay” was received and distributed to the TRIP Working Group members on August 8, 2009.
- A draft comprehensive work plan for the TRIP program was discussed during a meeting of the Working Group on August 14, 2012. The work plan is expected to be finalized in the third quarter of 2012.

ITEM #6. GROUNDWATER/SURFACE WATER BALANCE STUDY

Description

On December 10, 2009, the Santa Ana Regional Water Quality Control Board issued a Time Schedule Order (TSO) R8-20009-0069 to regulate groundwater-related discharges, particularly those containing elevated selenium levels, in the Newport Bay Watershed. The TSO requires the watershed stakeholders to develop and implement a Best Management Practices Strategic Plan (Plan) describing a phased approach for complying with the TSO requirements. In order to develop an effective plan, it is critical to understand the movement between groundwater and surface waters, and in particular how selenium is transferred from one to the other.

Daniel B. Stephens and Associates (DBS&A) was selected to conduct a groundwater-surface water balance study to identify and quantify the sources of water (including precipitation, irrigation application, and aquifer up-welling) that influence discharges of selenium-laden groundwater into creeks and channels in the Watershed (See figure 1). As of August 20, 2012, the draft final report was completed for review. The preliminary conclusions of the study include the following:

- 82 percent of total groundwater input is estimated to originate from lateral groundwater inflow. Lateral groundwater flow is driven by regional recharge in upgradient areas of the watershed.
- The next largest groundwater inflow components are deep percolation of precipitation (8 percent), sewer/water line exfiltration (7 percent), and, lastly, deep percolation of irrigation (3 percent).
- On average, approximately 63 percent of total groundwater output is due to passive discharge (drainage) to surface water channels via weeps, seeps, springs and through

collect the low flows and divert them via gravity feed to a storm water treatment device. The treatment device will capture sediment, trash, and debris prior to discharging the flows into an underground storage vault where it will eventually be pumped into the OCSD sanitary sewer line or harvested for irrigation use at the Newport Beach Golf Course. Figure 1 below is the primary location for the diversion system while Figure 2 is an alternative location.

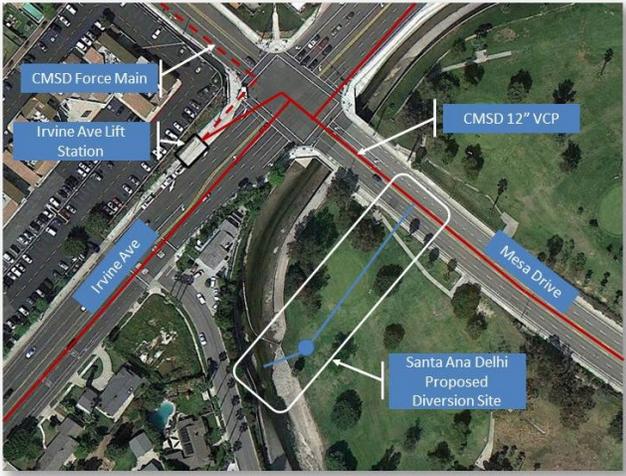
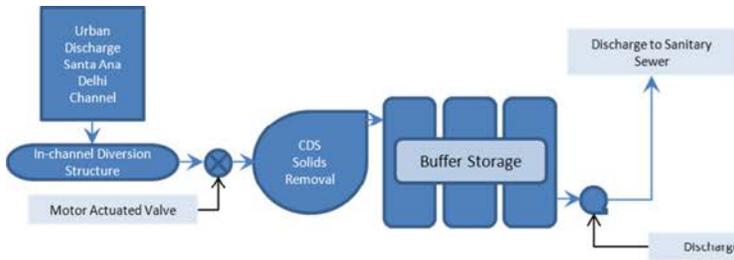


Figure 1: Proposed project site

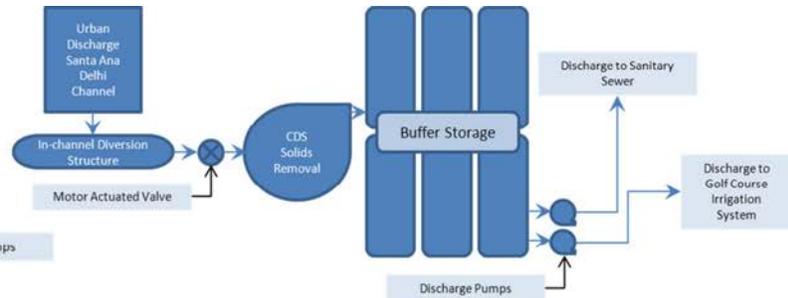


Figure 2: Alternative Project site

Each project location will develop two scenarios for discharging the treated non-storm water flows. The first scenario will be based on a capture and pump discharge to the sanitary sewer system. The second scenario will be based on a capture and harvesting for irrigation use at the Newport Beach Golf Course.



Process No. 1 – Discharge to Sanitary Sewer Flow Diagram



Process No. 2 – Discharge to Newport Beach Golf Course Flow Diagram

Recommended Action: Receive and file Items # 6-9

Next meeting date: November 21, 2012