



Joshua Sweeney
Mayor

Don Caskey
Mayor Pro Tempore

Jared Mathis
Council Member

Erica Pezold
Council Member

Dave Wheeler
Council Member

City of Laguna Hills City Council

Special Meeting Agenda
Tuesday, April 22, 2025 - 4:30 PM

City Council Chamber
24035 El Toro Road
Laguna Hills, CA 92653

In Person Public Comments: Any person wishing to address the City Council only on items listed on this Agenda, is asked to complete a pink “Request to Speak” form available on the table at the back of the Chamber and submit the form to the City Clerk. The Request to Speak form assists the Mayor in ensuring that all persons wishing to address the City Council are recognized and ensures accurate identification of meeting participants in the City Council Minutes. Completion of the form is voluntary. It is City policy to limit public testimony to up to three minutes per person, as determined by the Mayor, and a total time limit of thirty minutes for Public Comments.

Submission of Electronic Public Comments: Those wishing to make electronic public comments may submit their comments by [email to the City Clerk](#) by 2:30 p.m. on Tuesday, April 22, 2025. In the subject line of the email, please state your name and the item number you are commenting on. All comments received by 2:30 p.m. on the date of the meeting will be provided to the City Council and will be provided for public inspection at the meeting. During the applicable agenda item, the City Clerk will announce the name of the sender and subject matter of all electronic comments received by 2:30 p.m. on Tuesday, April 22, 2025. Email comments will NOT be read by the City Clerk during the meeting. Electronic public comments may only be submitted via email and comments via text and social media (Facebook, X (formerly Twitter), etc.) will not be accepted.

For questions or assistance, please contact the City Clerk’s Office at (949) 707-2635 or via [email](#).

Call to Order

Resolution No. 96-04-09-1 established rules of decorum for public meetings held by the City of Laguna Hills. Resolution No. 96-04-09-1 is available on the table at the back of the City Council Chamber.

Roll Call of City Council Members

Public Comments

Members of the public may address the City Council only on items listed on this Agenda. Public Comments are limited to three minutes per person as determined by the Mayor and a total time limit of thirty minutes.

City Council Study Session Items

1 Proposed Clarrington Park and Ridge Route Drive Bioswale Projects, and the Proposed Regional Stormwater Capital Improvement Program

Recommendation: That the City Council discuss and provide direction to City staff.

Adjournment

The next Regular Meeting of the City Council/Planning Agency will be April 22, 2025, at 6:00p.m., in the City Council Chamber, located at 24035 El Toro Road, Laguna Hills, California.

CERTIFICATION

I, JENNIFER LEE, City Clerk of the City of Laguna Hills, do hereby certify that a copy of the foregoing Agenda was posted at Laguna Hills City Hall, Laguna Hills Community Center, and the Courtyard at La Paz Center by April 21, 2025, at 4:30p.m.



Jennifer Lee, CMC, City Clerk

It is the intention of the City of Laguna Hills to comply with the Americans with Disabilities Act in all respects. If as an attendee or a participant at this meeting you will need special assistance beyond what is normally provided, the City of Laguna Hills will attempt to accommodate you in every reasonable manner. Please contact the office of the City Clerk at (949) 707 2635. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.

Materials related to an item on this Agenda submitted to the City Council after distribution of the agenda packet are available for public inspection in the City Clerk's Office at 24035 El Toro Road, Laguna Hills, California, during normal business hours. In addition, such writings or documents will be made available for public review on the City's website at: <https://www.lagunahillsca.gov/supplementalagenda> and at the respective public meeting.



City of Laguna Hills City Council / Planning Agency Staff Report

Date: April 22, 2025
To: Mayor and Council Members
From: Joe Ames, Assistant City Manager
Issue: Proposed Clarington Park and Ridge Route Drive Bioswale Projects, and the Proposed Regional Stormwater Capital Improvement Program

Recommendation: That the City Council discuss and provide direction to City staff.

Background:

For some time now, the County of Orange and the South Orange County cities have been working to develop a plan to meet the onerous requirements of the Regional Municipal Separate Storm Sewer System (MS4) Permit's "wet weather" compliance targets for fecal indicator bacteria in urban runoff and storm water runoff. This Regional MS4 Permit was issued by the San Diego Regional Water Quality Control Board (SDRWQCB), a California State agency, to the South County cities and the County of Orange for the Aliso Creek and San Juan Creek Watersheds in 2013. The Regional MS4 Permit was updated in 2015. The Regional MS4 Permit contemplates that the County and the South Orange County cities will meet fecal indicator bacteria levels by 2031. Depending on what methodology is used to measure compliance, the County and the cities are exceeding these targets by 10x or 100x the maximum allowable levels.

In June 2024, the County of Orange, with the consent and assistance of the Chair of the Orange County City Manager's Association, Laguna Woods City Manager Chris Macon, disseminated a briefing paper introducing the concept of a Regional Stormwater Capital Improvement Plan to address compliance deadlines.

Prefacing the introduction of this concept, City Manager Macon wrote in an e-mail to the Orange County City Managers Association members:

"Understanding that each of our cities have long histories of taking actions – many of which have been costly – to reduce and treat stormwater runoff, the reality is that permit requirements change and the future will require greater levels of investment. While the NPDES permit requirements giving rise to this discussion are new to Orange County (and, for now, most pressing for South Orange County), they exist elsewhere in the state. From that comes a reliable precedent that although we may succeed in challenging or negotiating portions of the permit requirements, they are unlikely to go away all together.

Since 1990, all Orange County cities, the County of Orange, and the Orange County Flood Control District have collaborated to comply with NPDES permit requirements. While the County of Orange acts as the “principal permittee” and provides core staffing for the countywide stormwater program, the program is truly a partnership involving staff from all 34 cities. The success and cost-effectiveness of the countywide stormwater program over these past 33 years has validated the idea that we’re better together when it comes to stormwater compliance. It is in that spirit that a Regional Stormwater Capital Improvement Plan is being considered. If fewer, higher-performing capital projects can be built, the regional benefits – including cost savings – could be significant. As you might imagine, the placement of capital projects matters a great deal in effectively intercepting stormwater runoff. That alone will likely create a need for collaboration and coordination between agencies. I will also mention that regional stormwater capital improvement plans already exist in both Los Angeles and San Diego counties."

The briefing paper indicates a Regional Stormwater Capital Improvement Plan might cost as much as \$1 billion to build bioswales and other storm water treatment devices (also known as structural “best management practices” or BMPs) to treat stormwater during wet weather events. Up until now, fortunately, most of the compliance efforts have been with “dry weather” compliance targets, which have been mostly met with lower-cost structural BMPs funded largely by the Orange County Transportation Authority (OCTA) Measure M2 Environmental Cleanup Program, such as catch basin debris screens, and common sense non-structural BMPs/housekeeping practices, such as catch street sweeping and prohibitions on wash water and motor oil discharges into the storm drain system. Orange County Public Works Deputy Director Amanda Carr is scheduled to present the briefing paper at this City Council meeting.

Recently, in an effort to jump-start the concept and implementation of a Regional Stormwater Capital Improvement Plan, the County provided funding for the preliminary design of several BMPs in South County cities, including a proposed bioswale at Clarington Park in Laguna Hills designed to treat rain event storm water flows to help

meet the requirements of the wet weather compliance target deadline in 2031. Some of these proposed projects were designed with a scope and a design and construction budget that would allow them to be submitted for grant funding under the OCTA Measure M2 Environmental Cleanup Program.

Currently, OCTA is soliciting projects for grant funding under its Tier 1 Environmental Cleanup Program. Applications are due May 8, 2025. Each city is eligible for up to \$600,000 in grant funding with a minimum of 20% match (i.e. \$600,000 in grant funding plus \$150,000+ minimum matching funds for a total project cost of \$750,000+). Consequently, the County has requested updates from cities on their intention to submit proposed projects for the current call for projects.

The Tier 1 Environmental Cleanup Program is a competitive grant program. Projects submitted for funding are largely scored based on their cost efficiency as a function of total project cost divided by treated drainage area.

The proposed bioswale at Clarington Park, according to the County's consultant, is estimated to cost \$1,114,000 including construction contingencies and final design expenses. If the City were to submit this project to OCTA for consideration, the City's match might be \$486,000 after receipt of OCTA grant funds and a contribution from the Municipal Water District of Orange County (MWDOC) turf removal rebate program that provides \$4 per square foot of removed turf. The proposed project will treat approximately 19.6 acres of upstream residential area runoff that would otherwise flow into Aliso Creek.

Alternatively, City staff has been working on a concept to construct a bioswale at the western terminus of Ridge Route Drive to treat stormwater from residential areas in North Laguna Hills that flow into the City of Irvine's open space west of the City limits and ultimately into Laguna Beach via the drainage system along Laguna Canyon Road. While this bioswale would not count towards meeting the wet weather compliance target deadline in the Regional MS4 Permit (because this permit only applies to the Aliso Creek and San Juan Creek watersheds), this project may offer ancillary benefits, because the construction of the gravel access road and fine grading may also support the future construction of a proposed community garden adjacent to the gravel access road. This proposed bioswale project is estimated to cost \$550,000 including construction contingencies and final design expenses. If the City were to submit this project to OCTA for consideration, the City's match might be \$110,000 after receipt of OCTA grant funds. The proposed project will treat approximately 130 acres of upstream residential area runoff. Therefore, given this information, the Ridge Route Drive bioswale will likely compete better for grant funding under the Tier 1 Environmental

Cleanup Program and be less costly to the City to implement.

In light of the discussion above and the briefing paper, City staff desires direction from City Council regarding what, if any, projects to submit to OCTA for the Tier 1 Environmental Cleanup Program, and thoughts on the concept and implementation of a Regional Stormwater Capital Improvement Plan.

Fiscal Impact:

Any matching funds required to receive OCTA Tier 1 Environmental Cleanup Program grant funds will likely need to come from General Fund Reserves.

For the proposed Clarington Park bioswale project, the estimated total project costs and sources of funding are as follows:

Estimated Expenses

Construction	\$663,000
Design, Permitting, and Construction Management	\$200,000
Construction Contingencies	\$251,000
Total Project Cost	\$1,114,000

Estimated Sources of Funding

OCTA Measure M2 Environmental Cleanup Program Grant	\$600,000
MWDOC Turf Removal Rebate Program	\$28,000
City General Fund Reserves	\$486,000
Total Project Cost	\$1,114,000

For the proposed Ridge Route bioswale project, the estimated total project costs and sources of funding are as follows:

Estimated Expenses

Construction	\$309,390
Design, Permitting, and Construction Management	\$153,000
Construction Contingencies	\$92,478
Total Project Cost	\$554,868 (~ \$550,000)

Estimated Sources of Funding

OCTA Measure M2 Environment Cleanup Program Grant	\$440,000
City General Fund Reserves	\$110,000
Total Project Cost	\$550,000

Attachments:

1. Regional Stormwater CIP Briefing Paper
2. Clarington Park Bioswale Presentation
3. Ridge Route Bioswale Presentation

Regional Stormwater Capital Improvement Plan Needed to Address Compliance Deadlines

This briefing is intended to provide an overview of the State-imposed regulatory deadlines that are driving the need for a regional stormwater capital improvement plan (CIP) and funding source. The initial focus is on South Orange County due to differences in current stormwater permit requirements, but the issue will apply countywide in subsequent permit cycles, anticipated for Central/North Orange County in 2024.

State water quality standards include significant monetary penalties for non-compliance beginning in 2031.

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act require the State to set scientific standards to ensure swimmable and fishable waters and protect the economic value of these waters. In South Orange County, the State's water quality standards for fecal bacteria in urban runoff have compliance deadlines of 2031 for wet weather (i.e. during rain events) that, if not met, will trigger statutory minimum penalties for cities and the County that could add to millions of dollars and escalate over time. The State will also be able to levy discretionary penalties, in addition to the statutory minimum penalties. Third-party lawsuits from environmental groups or others are also a significant threat based on the recent history of water quality-related lawsuits in Orange County and elsewhere.

Compliance with State water quality standards has not yet been demonstrated, but is due by 2031. Many Orange County streams, beaches, and bays have levels of fecal bacteria during and after rain events that often exceed State water quality standards by 10x-100x. While existing maintenance programs and low flow diversions have been effective in protecting swimming beaches particularly during dry weather, those and other programmatic and non-structural approaches have limitations for improving water quality during and after rain events in a manner that satisfies the State's forthcoming compliance deadlines. During wet weather conditions there are still exceedances of bacteria water quality standards, when sources of bacteria are mobilized.

New capital projects are needed to comply with State water quality standards. Based on several years of study by the Permittee group, including review of how cities and counties elsewhere in California are addressing similar compliance deadlines, new stormwater capital projects are necessary to avoid significant monetary penalties. Programmatic and non-structural solutions will be insufficient to satisfy the State's compliance requirements for fecal bacteria. In addition, stormwater capital projects would also mitigate other pollutants where compliance requirements may arise in the future. Cost estimates for regional stormwater capital project implementation in South Orange County range from approximately \$300M to \$1.5B depending on the number and scale of projects and the ability of the Permittee group to coordinate and negotiate with the San Diego Regional Water Quality Control Board (Regional Water Board) on achieving compliance. While the magnitude of costs for North Orange County cannot yet be estimated, it is likely to be equivalent to or greater than South Orange County due to larger land area and additional regulated pollutants such as nutrients, sediments, and toxics.

Action is needed now to develop a regional stormwater CIP and associated capital projects with a dedicated funding source to comply with State water quality standards and avoid significant monetary penalties. Regional stormwater capital projects require a collaborative approach to management and planning, as well as innovative funding, to ensure their cost effectiveness and utility as instruments of regulatory compliance both now and in the future. The Permittee group is seeking support to build upon the more than 30 years of successful countywide collaboration on stormwater compliance to develop a regional stormwater CIP and options for funding.

Frequently Asked Questions (FAQ)

1. What is the Permittee group?

The Permittee group includes the County of Orange, Orange County Flood Control District (Flood Control District), and 34 cities in Orange County (Permittees) who are regulated by Phase I Municipal Stormwater Sewer System (MS4) Permits to control stormwater and non-stormwater discharges to receiving waters such as streams and beaches. North Orange County and South Orange County are regulated by two different MS4 Permits issued by the Santa Ana and San Diego Regional Water Quality Control Boards, respectively. The Permittees have been collaborating on compliance with these MS4 Permits for over 30 years. In recent years, the Permittee group has also been organized into subgroups in South Orange County and North Orange County in response to diverging MS4 Permit requirements.

2. What is a regional stormwater capital project?

A regional stormwater capital project is a structural system (i.e. infrastructure) designed to capture stormwater runoff and dry-weather urban runoff from developed land uses. These systems are designed to retain or provide treatment of pollutants within stormwater and dry-weather urban runoff. Examples of stormwater capital projects include surface and sub-surface infiltration systems, constructed wetlands, vegetated bioretention and biofiltration systems, and bioswales. Stormwater can also be captured and used for on-site uses such as irrigation or can be diverted to sanitary sewer systems for use as recycled water or tertiary treated water. Regional stormwater capital projects have the potential for integration of multiple benefits such as use of captured water for water supply, recreation, and public education to name just a few.

3. How would a jurisdiction be found to be non-compliant?

MS4 Permits contain many different requirements such as jurisdictional pollution prevention programs, watershed planning, water quality monitoring, and other programs. Failure to implement any of these programs or plans can result in violations of the MS4 Permit. In addition, several watersheds in Orange County have been assigned strict numeric water quality limits within waterways that have final compliance deadlines. If these limits are not met by these deadlines, the respective Regional Water Board can find a jurisdiction to be non-compliant.

At present, several creeks and beach segments in Orange County have not met numeric water quality limits. These limits have been a major driver for watershed plans that contain commitments to implement new stormwater capital projects by final compliance dates. Where these plans are implemented on schedule, compliance can be maintained. If not, the Permittees could be found to be non-compliant. Additionally, once stormwater capital projects are built, Permittees will need to demonstrate their effectiveness through annual monitoring and by conducting long term operations and maintenance of these projects. If these projects are found to be deficient and not functioning as designed, the respective Regional Water Board could find the Permittee(s) to be non-compliant.

Each watershed in Orange County has different current and/or pending requirements. A more in-depth summary can be provided upon request.

4. What is the potential magnitude of enforcement actions?

There are two primary categories of potential financial liabilities for non-compliance:

- (1) **Mandatory minimum penalties (MMPs) and administrative civil liability (ACL).** These fines are levied by the Regional Water Board pursuant to California Water Code Section 13385. Violations could be issued for each day and each compliance point, which could be counted as storm drain outfalls or in-stream creek/channel/ocean stations. MMPs would continue to be accrued until compliance is achieved/demonstrated. Depending on how they are calculated, MMPs could range from \$500,000 to more than \$5M/yr. Per the ACL process, the discretionary ACL penalties would become progressively higher until compliance is achieved. For reference, the Santa Ana Water Board recently issued an ACL against the City of Norco on MS4 Permit violations¹ and the Los Angeles Water Board released 12 MMPs settlement offers for MS4 Permit violations². The tables below provide a summary of the ACL and MMPs settlement offers, however final penalties in Region 4 are yet to be determined.

Water Board Region Order Number	Discharger	Action	Amount	Alleged Violations
Santa Ana R8-2023-0056	Norco	ACL	\$320,000	Reservoir Replacement Project

Water Board Region Order Number	Discharger(s)	Action	Proposed Settlement Amount	Alleged Violations
Los Angeles R4-2024-0012	Cities Los Angeles, Lomita, Carson, Torrance, Rolling Hills, Rolling Hills Estate, Palos Verdes Estates, Rancho Palos Verdes, County of Los Angeles, and Los Angeles County Flood Control District	MMPs	\$15,000	Machado Lake Toxics TMDL
Los Angeles R4-2024-0013	Cities Los Angeles, Lomita, Rancho Palos Verdes, and Los Angeles County Flood Control District	MMPs	\$15,000	Machado Lake Toxics TMDL
Los Angeles R4-2024-0014	Cities Los Angeles, Lomita, Torrance, Rolling Hills, Rolling Hills Estate, Rancho Palos Verdes, and Los Angeles County Flood Control District	MMPs	\$15,000	Machado Lake Toxics TMDL
Los Angeles R4-2024-0015	Cities Lomita and Carson, County of Los Angeles, and Los Angeles County Flood Control District	MMPs	\$33,000	Machado Lake Nutrients TMDL
Los Angeles R4-2024-0016	City of Lomita, County of Los Angeles	MMPs	\$48,000	Machado Lake Nutrients TMDL
Los Angeles R4-2024-0017	Cities Rolling Hills and Rolling Hills Estate	MMPs	\$30,000	Machado Lake Nutrients TMDL

¹ [Santa Ana Regional Water Quality Control Board City of Norco ACL R8-2023-0056](#)

² [Los Angeles Regional Water Quality Control Board Expedited Settlement Offers, January 24, 2024](#)

Water Board Region Order Number	Discharger(s)	Action	Proposed Settlement Amount	Alleged Violations
Los Angeles R4-2024-0018	Cities Rolling Hills, Rolling Hills Estate, Rancho Palos Verdes, and County of Los Angeles	MMPs	\$69,000	Machado Lake Nutrients TMDL
Los Angeles R4-2024-0019	City of Palos Verdes Estates	MMPs	\$57,000	Machado Lake Nutrients TMDL
Los Angeles R4-2024-0020	Cities Rolling Hills Estate, Palos Verdes Estates, Rancho Palos Verdes	MMPs	\$81,000	Machado Lake Nutrients TMDL
Los Angeles R4-2024-0021	Los Angeles County Flood Control District	MMPs	\$12,000	Machado Lake Nutrients TMDL
Los Angeles R4-2024-0022	La Habra Heights	MMPs	\$84,000	MS4 Reporting
Los Angeles R4-2024-0023	Torrance	MMPs	\$129,000	MS4 Reporting

- (2) **Third party lawsuits and/or court-ordered consent decree.** Private citizens and other third parties can also seek to enforce water quality regulations through civil legal actions. Civil legal liabilities can include plaintiff and defendant attorney fees, punitive damages, settlement commitments, and/or court ordered directives. Settlements and consent decrees are typically prescriptive and reduce Permittee discretion. Ranges of financial liability from five recent lawsuits in South Orange County specific to individual properties are between \$225,000 - \$3.4M. These values do not include the funds needed to construct structural stormwater projects typically required to achieve compliance with settlements. Additionally, these cases were for individual properties, which is a smaller spatial scale than a municipal jurisdiction. Therefore, if portions of Orange County were subject to a third-party lawsuit, financial liabilities could be significantly higher and ultimately require construction of stormwater capital projects on a much larger scale. For reference, consent decrees have required California MS4s to invest billions of dollars.^{3, 4, 5} The table below provides a summary of the referenced consent decrees.

Parties	Alleged Violation	Amount	Requirements
San Francisco Baykeeper v San Jose	CWA violations of the MS4 Permit, including alleged unlawful discharges of pollutants from the San José MS4 and alleged sewage discharges to the San José MS4 from the San José Collection System	Estimated \$100 million	Trash Reduction Program; Fecal Indicator Bacteria (FIB) Assessment Program; FIB Load Reduction and Comprehensive Load Reduction Plan (CLRP); Collection System Improvement Program

³ [San Francisco Baykeeper v City of San Jose, 2016](#)

⁴ [California Coastkeeper Alliance v County of Sacramento, Sacramento Area Sewer District, and Sacramento County Department of Water Resources, 2023](#)

⁵ [USEPA, San Diego Baykeeper v City of San Diego, 2013](#)

Parties	Alleged Violation	Amount	Requirements
CA Coastkeeper Alliance v County of Sacramento, Sacramento Area Sewer District, and Sacramento County DWR	Alleged that Defendants violated and continue to violate the Clean Water Act for discharges of pollutants in violation of the Clean Water Act, the 2002 MS4 Permit, and/or the 2008 MS4 Permit	\$155,000 in attorneys' fees and other costs, \$50,000 in compliance monitoring, and \$100,000 per year for the repair program	SSO and Spill Reduction Performance Standards; SSO Reduction Action Plan; SSO Investigation, Response, and Reporting; Sewer Inspection and Condition Assessment; Main Line Sewer and Lower Lateral Cleaning Programs; Critical Assets Near Waters of the United States; Annual Report on Collection System
USEPA, San Diego Baykeeper v City of San Diego	Alleged that the city had in the past and continues to violate Section 301(a) of the CWA, 33 U.S.C. § 1311(a), by violating the city's sanitary and stormwater permits	Estimated \$1 billion over six years	Continue to undertake capital projects and perform operations and maintenance, to prevent future spills of raw sewage from the city's system.
Santa Monica Baykeeper and NRDC vs. City of Malibu	Alleged that the city had and continues to violate the CWA based on discharge of pollutants to the ASBS from Latigo Point to the Ventura Countyline.	Total \$6.6M (partial estimate, 2012 dollars) Plus city defense costs and treatment at 6 additional drains not included in partial estimate.	Pay plaintiff legal fees Perform studies. Implement retrofits at 17 drains total.

5. Do other jurisdictions in Southern California have to implement stormwater capital projects and have similar compliance concerns?

Most municipalities in Southern California are subject to MS4 permits with water quality limits with compliance deadlines. In many cases, these permit limits are requiring implementation of stormwater capital projects. Municipalities in the Los Angeles and San Diego regions are facing stringent stormwater regulations and have collaborated on the development of watershed management plans which have included the implementation of stormwater capital projects as a key element of meeting compliance requirements.

6. What are we currently spending through the OC Stormwater Program for compliance, and what is anticipated to be required to remain in compliance?

The current agreement for the OC Stormwater Program is a cost share agreement that supports individual jurisdiction MS4 Permit compliance requirements including program development, public education, environmental monitoring, scientific studies, preliminary project planning, and compliance reporting. Individual Permittees are responsible for implementing other requirements of the MS4 Permit through their own independent programs and budgets. The 2023-24 cost share budget has been approved by the Permittees for a total of \$8.5M. Current cost-share allocations per jurisdiction are based on population and land area.

Based on current analyses for South Orange County, the cost to implement stormwater capital projects to achieve compliance ranges from \$300M to \$1.5B over the next 7 - 12 years⁶. This is a major increase over baseline spending levels of the current OC Stormwater Program. This estimate depends on the number and scale of projects and the ability of the Permittee group to coordinate and negotiate with the San Diego Regional Water Board on achieving compliance.

Although North Orange County stormwater capital project implementation costs have not yet been estimated, the cost is likely to be greater than South Orange County due to larger land area and additional regulated pollutants.

7. What are the main changes to the OC Stormwater Program needed to pursue a collaborative stormwater CIP?

If a collaborative stormwater CIP were pursued, there would need to be additional provisions or agreements for cooperation between the cities, the County, and the Flood Control District for the funding, planning, design, permitting, construction, operation, maintenance, and monitoring of performance of stormwater capital projects. This could be done as an alternative to the cities and the County implementing stormwater capital projects on an individual basis. This new cooperation would build on the success of the current stormwater cooperation, that is focused on meeting MS4 Permit compliance, and would be expanded to include collaborative implementation of stormwater capital projects.

8. Where has a collaborative CIP like this been implemented?

There are several examples in California where collaborative structures have been formed around funding and collaborative CIP implementation. Each has differences from what may be appropriate for a stormwater CIP in Orange County.

- Orange County Flood Control District and Orange County Public Works Infrastructure Programs, City Engineers Flood Control Advisory Committee (CEFCAC). With input from CEFCAC, OC Infrastructure Programs maintains a 7-year CIP and implements flood control projects within local jurisdictions.
- Los Angeles County's Safe Clean Water Program (Measure W Parcel Tax). This program provides funding via a parcel tax of 2.5 cent (\$0.025) per square foot of impermeable area for capital projects on a competitive basis. Watershed Area Steering Committees develop Stormwater Investment Plans to guide allocation of money, with regional oversight. Individual project proponents implement projects.
- Santa Ana Watershed Project Authority. SAWPA is a Joint Powers Authority that delivers regional water solutions supporting its member agencies, which include several water districts. The authority plans and builds multi-benefit projects.
- Lake Tahoe Lake Clarity Credit Program. This is a regulatory program for TMDL implementation. It includes a defined system for credit trading between jurisdictions. Individual project proponents implement projects.
- Regional Alternative Compliance Programs in the Bay Area. Alternative compliance programs are under consideration in Contra Costa County and San Mateo County to provide ways to collaborate on regional stormwater projects as an alternative to site-by-site projects.

⁶ The final compliance dates in South Orange County are April 2031, but it is possible that this deadline could be extended via a Time Schedule Order (TSO) for up to two 5-year terms.

9. What are the primary benefits of a collaborative stormwater CIP approach?

The collaborative stormwater CIP approach would allow the Permittees to work together as a group to implement projects for compliance. It is anticipated that this collaborative option would also result in significant cost savings due to larger-scale, multi-jurisdictional projects, streamlining project delivery, and shared operations and maintenance cost. A collaborative CIP would also enhance the Permittee's ability to increase funding opportunities as a group and make strong partnerships with various other entities (e.g., water districts) to share the cost of these projects. Finally, a collaborative approach would allow for strength in numbers with future negotiations with the Regional Water Boards and avoid other risks associated with non-compliance.

10. What is the alternative to implementing a collaborative stormwater CIP?

If a collaborative stormwater CIP is not pursued for regional stormwater capital projects, regulatory compliance obligations would be addressed by individual jurisdictions. This would likely require individual jurisdictions to implement stormwater capital projects independently or through ad-hoc partnerships which would require increased staff and funding to plan, design, construct, maintain and annually monitor the performance of projects within their own jurisdictions.

11. What are the benefits of stormwater capture besides improving water quality?

The primary benefit of stormwater capture besides water quality improvement and regulatory compliance is increased local water supply reliability by introducing a new source of water supply. Stormwater can be used for irrigation and other uses as well as recharge local groundwater aquifers. Other potential benefits of stormwater capital projects also include recreation enhancements, habitat creation, reduction of heat island effects, flood control, aesthetics, safety, and education. Some of these benefits contribute to increased climate resiliency.

12. Can State water quality requirements be challenged in either South or North Orange County?

State water quality requirements can be challenged in both North and South Orange County, either through regulatory appeals, permit modifications, or through legal processes. The Permittees have a long history of challenging regulatory requirements and proposed regulatory approaches as well as negotiating achievable compliance options. Even if a stormwater CIP approach were pursued, this would continue to be a primary focus of the OC Stormwater Program. That said, precedent has been set throughout California that implementation of stormwater capital projects can be a primary means to achieving compliance with MS4 Permits. While negotiations or appeals regarding regulatory requirements could reduce the need for new stormwater capital projects, it is highly unlikely that this need will completely go away. Therefore, while the Permittees continue to pursue regulatory and legal options, it is necessary to also prepare to implement stormwater capital projects.

For additional information:

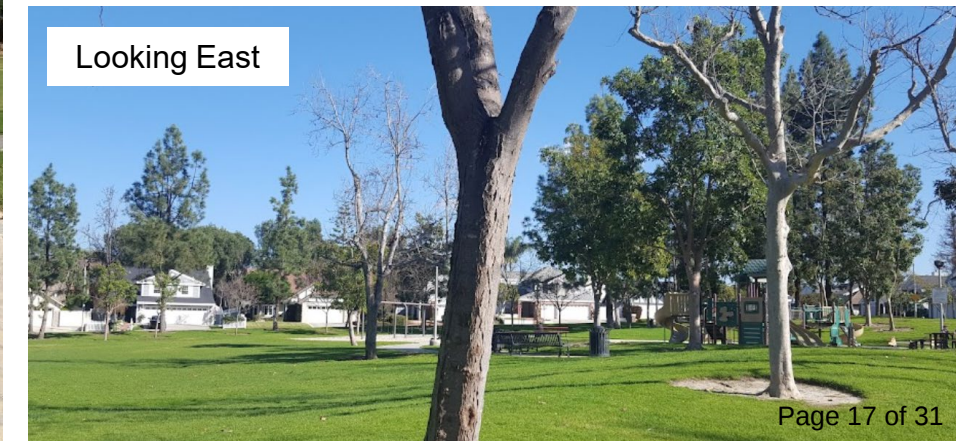
Amanda Carr
Deputy Director, OC Environmental Resources
OC Public Works
amanda.carr@ocpw.ocgov.com
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An aerial photograph of a coastal area, likely Clarington Park. A multi-lane highway curves through the foreground and middle ground. To the right of the highway, there's a residential area with houses and a large parking lot. To the left, there's a beach and the ocean. The sky is blue with some clouds. The text "Clarington Park Project Concept" is overlaid in the center.

Clarington Park Project Concept

Park Overview

- 3.5 acre city-owned park adjacent to Aliso Creek
- Clarington Park includes:
 - 3 acres of turf area, mature trees, and playgrounds
- Two existing storm drains
 - As-builts show that biofiltration is feasible and allows a simple tie-in from biofiltration underdrain/overflow to storm drains
- Assumptions
 - Sanitary line is deeper than existing storm drain
 - Existing storm drains outfall to Aliso Creek



Existing Drainage Patterns

- Three subdrainage areas flow to two storm drains of interest
 1. Clarington Park on-site SD: Captures 3.1 acres of runoff from within the park
 2. Jorie Dr. SD: Captures 12 acres of runoff from neighborhoods
- Three subdrainage areas do not enter the two storm drains of interest:
 1. Runoff along the south side of Weyburn Dr bypasses park and flows down Clarington Dr. along the west side of the park.
 2. Runoff from Paige Cir enters inlets on the North end of Paige Circle
 3. Runoff from Hon Ave flows east



Two storm drain inlets on Jorie drive

Conceptual Design Elements

- Stormwater Improvements
 - Intercept dry and wet weather runoff before it enters Jorie Dr. storm drain
 - Intercept runoff from Weyburn Dr that currently bypasses park



Conceptual Design Elements

- Stormwater Improvements
 - Intercept dry and wet weather runoff before it enters Jorie Dr. storm drain
 - Intercept runoff from Weyburn Dr that currently bypasses park
 - Use cost efficient measures to route stormwater into and through the park (trench drains, parkway culverts, and rock-lined swales)



Conceptual Design Elements

- Stormwater Improvements
 - Intercept dry and wet weather runoff before it enters Jorie Dr. storm drain
 - Intercept runoff from Weyburn Dr that currently bypasses park
 - Use cost efficient measures to route stormwater into and through the park (trench drains, parkway culverts, and rock-lined swales)
 - Implement biofiltration BMPs along N perimeter of park
 - Maintain recreational field space
 - Potentially eligible for turf removal rebate program
 - Incorporate native vegetation



Conceptual Design Elements

- Stormwater Improvements
 - Intercept dry and wet weather runoff before it enters Jorie Dr. storm drain
 - Intercept runoff from Weyburn Dr that currently bypasses park
 - Use cost efficient measures to route stormwater into and through the park (trench drains, parkway culverts, and rock-lined swales)
 - Implement biofiltration BMPs along N perimeter of park
 - Maintain recreational field space
 - Potentially eligible for turf rebate program
 - Incorporate native vegetation
- Potential to integrate aesthetic and educational features
 - Expand paths including bridges or board walks over stormwater features/ponds
 - Educational signage
 - Koi pond (separate from stormwater system)





V-ditch

Subsurface
trench drain or
culvert

Subsurface
pipe



Overflow
Inlet

Rock-lined
Swale

Culvert
under
sidewalk

V Ditch

- Mulch
- River Rock
- Hairwan Muhly
- Common Rush
- Seaside Daisy
- Silver Carpet

Some Examples of Native Vegetation

Hairwan Muhly	Common Rush	Seaside Daisy	Silver Carpet
			





Overflow
Inlet

Rock-lined
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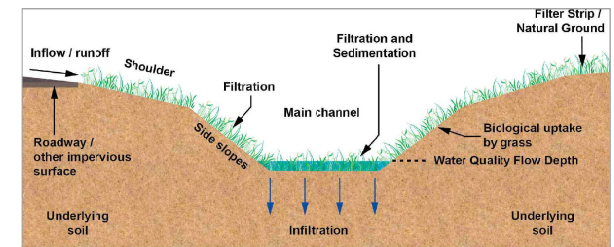
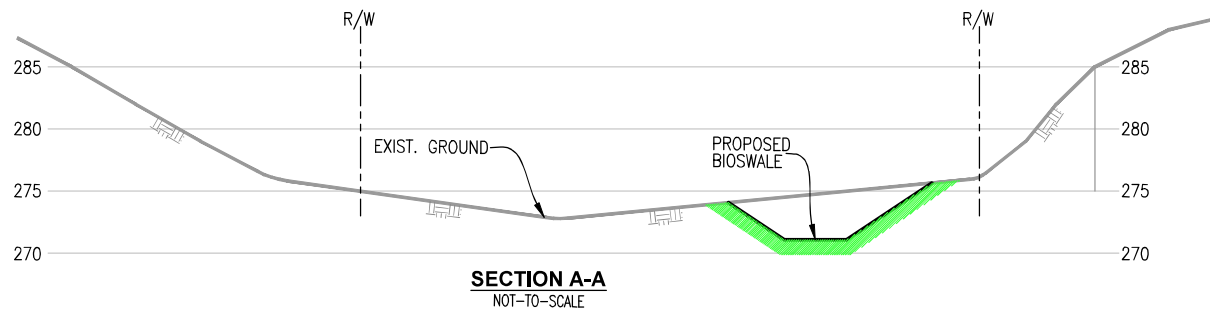
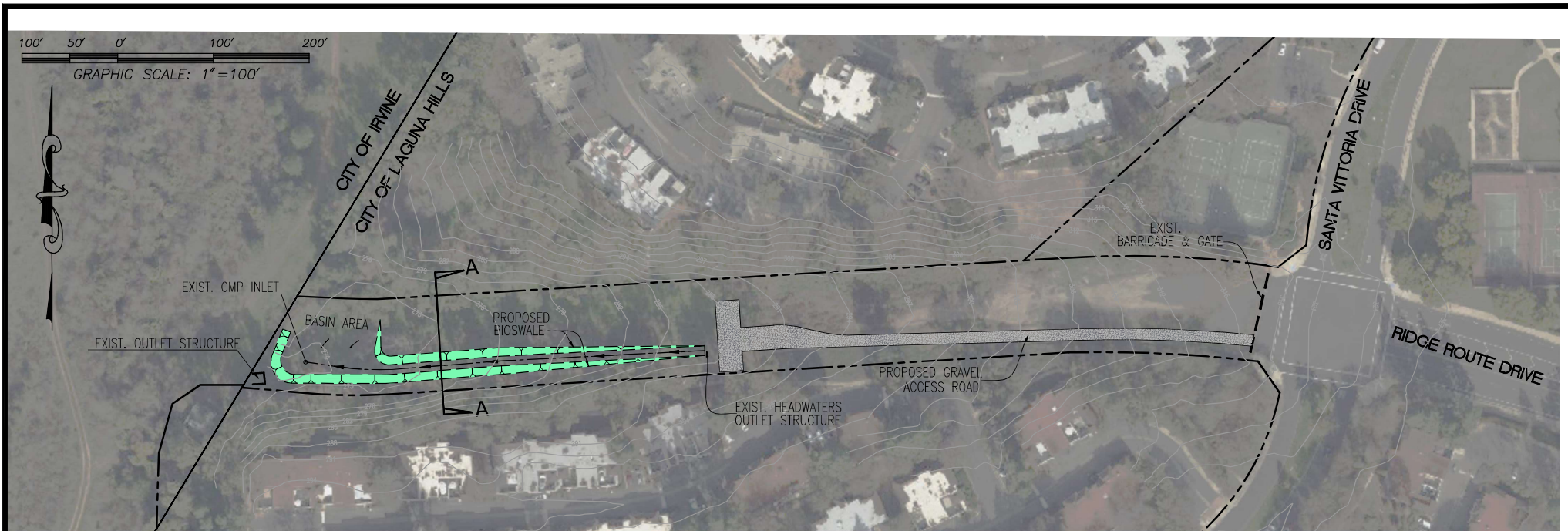
Project Costs and Potential Funding

	Estimated Total Cost	Grants & Funding		Laguna Hills
		Turf Removal Rebate (\$4/sq-ft of removed turf)	OCTA - Tier 1 Grant (600k max w/ 20% match)	
Construction Materials and Labor	\$663,000	\$28,000	\$530,400	\$104,600
Design, Permitting, and CM	\$200,000	NA	\$69,600	\$130,400
Contingencies (inc. escalations and construction contingency)	\$251,000	NA	\$0	\$251,000
Total	\$1,114,000	\$28,000	\$600,000	\$486,000

Project Plan View Schematic



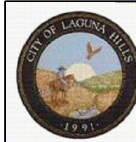
Ridge Route Bioswale Project Concept



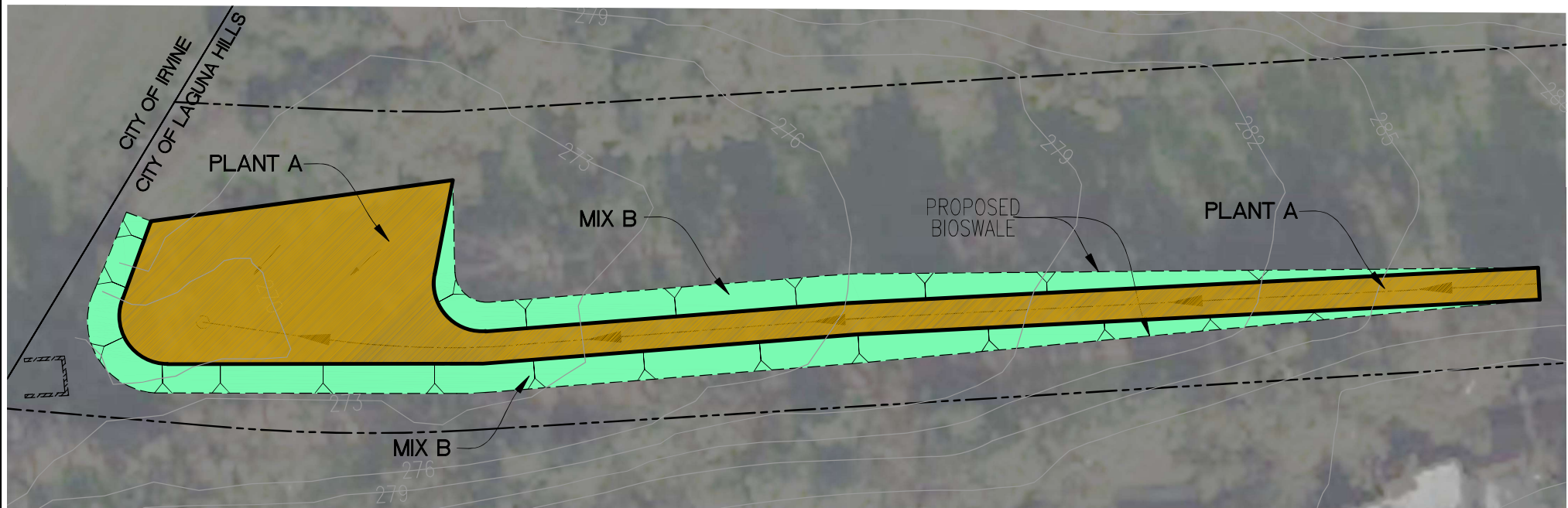
TYPICAL BIOSWALE SECTION

PROPOSED BIOSWALE AT EXTENSION OF RIDGE ROUTE DRIVE

PROACTIVE
ENGINEERING CONSULTANTS
27051 Towne Centre Drive, Suite 270
Foothill Ranch, CA 92610 (949) 716-7460



CITY OF LAGUNA HILLS
DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION



Juncus Patens Blue Rush

PLANT A



Muhlenbergia Capillaris Pink Muhly



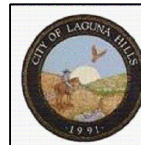
Carex Barbarae Santa Barbara Sedae



Eriogonum Fasciculatum California Buckwheat

MIX B

PROPOSED BIOSWALE AT EXTENSION OF RIDGE ROUTE DRIVE



CITY OF LAGUNA HILLS
DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION



CITY OF LAGUNA HILLS
BIOSWALE IMPROVEMENTS AT EXTENSION OF RIDGE ROUTE DRIVE
PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST

April 16, 2025

Page 1 of 1

ITEM DESCRIPTION	UNIT COST	UNIT	QUANTITY	COST
A. General Items				
Construction Management	\$ 80,000.00	LS	1	\$ 80,000.00
Permitting	\$ 10,000.00	LS	1	\$ 10,000.00
Engineering Design Services	\$ 40,000.00	LS	1	\$ 40,000.00
Geotechnical investigation and report	\$ 15,000.00	LS	1	\$ 15,000.00
Construction Survey	\$ 8,000.00	LS	1	\$ 8,000.00
Sub-Total				\$ 153,000.00
B. Improvements				
Mobilization & Demobilization (Not to Exceed 5% of Bid).	\$ 17,010.00	LS	1	\$ 17,010.00
Site Maintenance/Erosion Control BMPs.	\$ 4,000.00	LS	1	\$ 4,000.00
Site preparation, clearing	\$ 0.25	SF	104,000	\$ 26,000.00
Grading and earthwork	\$ 150.00	CY	950	\$ 142,500.00
Access road (4" Gravel)	\$ 60.00	TON	163	\$ 9,780.00
Adjust existing storm drain manhole to grade	\$ 1,500.00	EA	2	\$ 3,000.00
Replace/repair existing inlet	\$ 5,000.00	EA	2	\$ 10,000.00
Remove and relocate existing gate and barricade	\$ 12,500.00	LS	1	\$ 12,500.00
Install irrigation systems	\$ 41,100.00	LS	1	\$ 41,100.00
Install plant material	\$ 43,500.00	LS	1	\$ 43,500.00
Sub-Total				\$ 309,390.00
Total				\$ 462,390.00
Cost Escalation and Contingency (20%)				\$ 92,478.00
Grand Total				\$ 554,868.00
Say				\$ 555,000.00