



Administrative Report

H.6., File # 21-2419

Meeting Date: 6/8/2021

To: MAYOR AND CITY COUNCIL
From: TED SEMAAN, PUBLIC WORKS DIRECTOR

TITLE

APPROVE THE 2021 UPDATED ENHANCED WATERSHED PROGRAM AND REASONABLE ASSURANCE ANALYSIS PREPARED FOR THE BEACH CITIES WATERSHED GROUP AND APPROVE THE SUBMITTAL TO THE REGIONAL BOARD FOR THEIR APPROVAL

EXECUTIVE SUMMARY

On November 8, 2012, the Los Angeles Regional Water Quality Control Board (Board) adopted the 2012 National Pollutant Discharge Elimination System Permit (Permit) for discharges from the municipal separate storm sewer system within the coastal watersheds of Los Angeles County. The City of Redondo Beach, in collaboration with the Cities of Hermosa Beach, Manhattan Beach and Torrance, along with the Los Angeles County Flood Control District formed the Beach Cities Watershed Management Group (Beach Cities Group) to develop an Enhanced Watershed Management Plan (EWMP) to comply with the permit requirements. The City Council approved the EWMP on June 16, 2015 and the Beach Cities Group obtained Board approval of the EWMP on April 18, 2016. The Permit requires that the Permittees submit an updated EWMP and Reasonable Assurance Analysis (RAA) by June 30, 2021. In order to comply with the Permit requirement in a timely fashion, staff is recommending approval of the Updated EWMP and RAA and approval to submit the updates to the Board for their approval. Due to its length, the complete 2021 Updated EWMP and RAA are available to download for review at the City's web site at [Beach Cities Enhanced Watershed Management Plan](https://www.redondo.org/civicax/filebank/blobdload.aspx?t=40665.95&BlobID=39451)
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BACKGROUND

On November 8, 2012, Board adopted the 2012 National Pollutant Discharge Elimination System Permit Order No. R4-2012-0175, NPDES No. CAS004001 for discharges from the municipal separate storm sewer system within the coastal watersheds of Los Angeles County. The Permit identifies conditions, requirements and programs that municipalities must comply with to protect regional water resources from adverse impacts associated with pollutants in stormwater and urban run-off. The Permit included options for how agencies choose to comply with the permit conditions. Agencies could choose to follow a strict compliance implementation plan similar to previous permits, or choose to develop an implementation program based on a watershed approach in collaboration with watershed-wide partners.

The cities of Redondo Beach, Hermosa Beach, Manhattan Beach and Torrance, and the Los Angeles

County Flood Control District formed the Beach Cities Watershed Management Group to develop an EWMP to comply with requirements of the Board's 2012 MS4 Permit, the Santa Monica Bay Beaches Bacteria TMDL, the Santa Monica Bay Toxics TMDL, and the Dominguez Channel Watershed TMDL. The Redondo Beach City Council approved the watershed-wide EWMP on June 16, 2015 and authorized the submittal to the Board. The Beach Cities Group obtained Board approval of the EWMP on April 18, 2016. A requirement of the Permit is that the Permittees submit an updated EWMP with an updated RAA by June 30, 2021 in accordance with the adaptive management process.

The Updated EWMP identifies strategies and Best Management Practices that, when implemented individually by jurisdictions, or collectively at a watershed scale, will address water quality concerns. Regional projects are centralized projects located near the downstream ends of large drainage areas and receive large volumes of runoff from the upstream tributary area that typically occupies multiple jurisdictions. Runoff is typically diverted to regional projects after it has entered the storm drain system and is routed to public parcels for infiltration. This is in contrast to local or distributed projects, which tend to treat surface runoff closer to its source.

The updated EWMP and RAA assess the current status of the watershed's implemented projects and programs, and evaluate the need to make adjustments based on meeting targeted water quality reductions. The most significant component of the EWMP is the development of watershed-wide regional projects with the goal of achieving the desired pollutant reduction levels primarily through the infiltration of large amounts of dry and wet weather urban runoff. New and completed projects were added and infeasible projects removed. For example, the original EWMP identified the Herondo Drain watershed as a high priority area for implementing regional structural projects in order to meet compliance deadlines for water quality objectives. The priority Herondo drain project, the Hermosa Beach Greenbelt Infiltration Project is no longer a feasible project, so new locations were added and incorporated into the Updated EWMP.

In addition, the update includes a review of water quality priorities with an analysis of all applicable water quality data, confirming the various water quality priorities, performing the required analyses for completion of the RAA, and determining existing and potential control measures to identify all stormwater controls that were analyzed as part of the updated EWMP/RAA. The RAA software was modified with the addition of applicable water quality data and calibrated. The RAA iteratively analyzed various BMP scenarios in targeted watersheds to seek to identify a project implementation strategy that demonstrates reasonable assurance of compliance while also meeting the Beach Cities needs with respect to siting, funding, and scheduling.

The revised Beach Cities EWMP has been updated in the following significant ways:

- Incorporation of newly available, EWMP-specific data. The Beach Cities WMG has been implementing a Coordinated Integrated Monitoring Program since 2016 to cost-effectively coordinate the collection of watershed-specific stormwater quality and flow data, resulting in five years of outfall and receiving water monitoring data from the Beach Cities EWMP area. Additionally, Santa Monica Bay Beaches Bacteria Coordinated Shoreline Monitoring data has been collected consistently since 2005. The revision of the Beach Cities EWMP incorporates both sets of applicable data.
- Utilization of the recently updated, County-wide RAA modeling tool. The revised RAA uses the

newly released, LACFCD-developed WMMS 2 watershed modeling platform for consistency with the majority of RAA analyses performed across Los Angeles County.

- Calibration and Validation of the RAA model. The default WMMS 2 model has been calibrated and validated using Beach Cities outfall, receiving water, and shoreline monitoring data collected through June 30, 2020 to best reflect the baseline hydrology and water quality conditions within the Beach Cities EWMP area.
- Identification of new, multi-benefit regional projects. The revised EWMP emphasizes regional and distributed multi-benefit projects, including green streets that seek to maximize community benefits, amplify other environmental objectives, and increase Safe Clean Water (Measure W) funding potential. New projects have been identified to substitute for regional projects in the original EWMP that were determined to be infeasible. In other instances project scopes have been modified or expanded.

The structural projects located in Redondo Beach that are included in the Updated EWMP are summarized below:

Fulton Playfield Infiltration Regional Project

Fulton Playfield is an open green space at the southeast intersection of Ripley Avenue and Rindge Lane. The playfield is adjacent to an 8.5-foot by 10-foot LACFCD storm drain that runs under Ripley Avenue and connects directly to the Herondo Storm Drain on 190th St. An underground flood control retention basin underlies the western half of the playfield and provides approximately 6.4 acre-feet of passive storage to help relieve flooding during storm events. Approximately 440 acres of the City of Redondo Beach and 25 acres of the City of Manhattan Beach are tributary to the basin. The Project proposes to add infiltration elements to the existing flood control basin in order to transform it into a multi-benefit regional project while maintaining its flood control capacity and function. Infiltration will be accomplished via the addition of drywells to the eastern portion of the playfield. The project will include a control system for the inlet-outlet structure of the basin to manage and optimize the storage and infiltration capacity of the project. The total 24-hour management volume provided by these distributed BMPs will be 29 acre-feet. The Project will also incorporate a variety of other benefits. Parkway greening via the installation of rain gardens is proposed along the east side of Ripley Avenue to capture and treat street flows that aren't currently tributary to the Project. Park enhancements at the playfield, such as playground equipment or outdoor exercise equipment, are being considered.

Beach Cities Joint Green Streets Project

This project includes the installation of distributed green infrastructure in six distinct areas of the Herondo Watershed. In total, the Project will capture, treat, and/or infiltrate runoff from approximately 167 acres, including tributary areas from all four Beach Cities member cities. The project is intended to be a multi-benefit project that will address multiple pollutants of concern, including trash, bacteria, and more. It will also include neighborhood greening elements, where feasible. The green street locations in Redondo include:

Anita Street between Flagler Lane and N. Lucia Avenue and compose approximately 16 acres of drainage area; and

Ford Avenue Corridor including residential and commercial areas along Belmont Lane, Pullman Lane, Ford Avenue, Goodman Avenue, and Steinhart Avenue, composing approximately 31 acres of total tributary area.

Redondo Beach Herondo Watershed Distributed Infiltration Project

The City proposes to implement a series of distributed infiltration BMPs (e.g., drywells, porous gutters, porous crosswalks, porous parking lanes, bioswales, etc.) within the Herondo Storm Drain watershed. The total 24-hour management volume provided by these distributed BMPs will be at least 16.3 acre-feet.

Alondra Park Stormwater Capture Regional Project

This Project is a multi-benefit stormwater project proposed at Alondra Park, a large park located in the unincorporated County area of El Camino Village. The park is under the jurisdiction of Los Angeles County Department of Parks and Recreation. The project has been strategically located in the 13.5-acre park space in the northwest corner of the site. The Project provides the opportunity to capture dry weather flows and stormwater and improve water quality by diverting flows from LACFCD stormdrains into underground storage galleries totaling 34-acre-feet in total capacity. The captured flows are proposed to be diverted from the galleries into an existing sewer system because infiltration is not feasible due to soil conditions. During storm events when flows are higher than sewer capacity, water will be treated before being diverted back to the storm drain. Bioswales with native plants will replace existing turf areas along Manhattan Beach Boulevard, providing new habitat and a natural way to slow and treat stormwater and dry weather runoff. The parking lots will be reconstructed with permeable pavement and bioswales. New trees will be planted throughout the park to provide shade and bolster the performance of other green infrastructure.

The cities of Manhattan Beach and Redondo Beach collectively account for approximately 1,424 acres (29%) of the tributary area to the Alondra Park Stormwater Capture Project. As project partners, the two cities will receive a portion of water quality benefits from the overall project, proportional to their drainage area. The cities will receive additional credit if they provide additional funding to the project that may be available from competitive grants and other outside sources. At the time of this updated EWMP, Manhattan Beach is estimated to receive 1.76-acre-feet of storage credit and Redondo Beach is estimated to receive 5.29-acre-feet of storage credit. The project has been modeled in the Beach Cities RAA assuming these proportional volumes for each city.

Glen Anderson Park Regional Infiltration Project

This park is adjacent to a LACFCD 78-inch stormdrain pipe that runs under Vail Avenue. Approximately 480 acres of area within the Dominguez Channel watershed is tributary to this storm drain at the point it flows past Glen Anderson Park in Redondo Beach. The Park Regional Infiltration Project will provide infiltration via an underground infiltration basin or a series of drywells, or a combination of both. Pretreatment will be provided following diversion from the Vail Avenue storm drain. Based on RAA results, the total 24-hour management volume provided by the project will be 9.4 acre-ft.

Redondo Beach Dominguez Channel Distributed Infiltration Project

This project will implement a series of distributed infiltration BMPs (e.g., drywells, porous gutters, porous crosswalks, porous parking lanes, bioswales, etc.) within the Dominguez Channel Watershed

to meet the target load reduction. Based on RAA results, the total 24-hour management volume provided by these BMPs will be 8.3 acre-ft.

EWMP Project Funding

The availability of funds is critical for the successful implementation of the EWMP. The Updated EWMP provides an overview of potentially available funding sources for programs and projects proposed in the EWMP. The funding sources included in the report for consideration are Measure W (Safe, Clean Water Program) grants, interagency partnerships, bonds, State Revolving Funds, local funding opportunities, and public private partnerships. The total estimated capital cost for the structural projects is a range of \$64,350,000 - \$72,970,000, with the projects physically located in Redondo Beach estimated at \$18,180,000 - \$21,980,000.

The table below summarizes the total cost estimates for each proposed structural BMP in Redondo Beach, which are composed of the cost to construct or implement each structural BMP plus the associated annual O&M and monitoring costs.

Cost Estimates for Projects in Redondo Beach

Project:	Estimated Capital Cost:	Annual O&M	Monitoring Cost:
Fulton Playfield Infiltration Project	\$1,995,000 - \$2,625,000	\$45,000	\$35,000
Herondo Watershed Distributed Infiltration	\$3,230,000 - \$4,250,000	\$70,000	\$55,000
Beach Cities Green Streets Project	\$1,000,000 - \$1,500,000	\$5,000	\$10,000
Alondra Park Regional Stormwater Capture Project	\$6,730,000	\$44,500	N/A
Dominguez Channel Distributed Infiltration Project	\$2,090,000 - \$2,750,000	\$45,000	\$35,000
Glen Anderson Park Regional Infiltration Project	\$3,135,000 - \$4,125,000	\$65,000	\$50,000
TOTAL	\$18,180,000 - \$21,980,000	\$269,500	\$175,000

The draft Updated EWMP includes planning-level cost estimates for the implementation of the proposed structural BMPs based on results from the RAA. Estimated costs are presented as an aid for decision making, and contain considerable uncertainties. Given the many variables associated with the projects, the cost estimates include a wide range and are subject to change based on site-specific BMP feasibility assessment findings, final designs, and results of outfall and receiving water monitoring. Project implementation details and cost-sharing mechanism are yet to be determined. It is anticipated that the Beach Cities individual contributions would be based on their relative proportional geographic tributary area.

On May 19, 2021, the Beach Cities WMG, in coordination with Geoynstec and Murakawa Communications, hosted a virtual webinar to present this updated EWMP program and to gather feedback from the community. The presentations included an overview of regulatory requirements, general approach to meeting the requirements, local context and concepts being utilized in developing the draft Updated EWMP. The complete Updated EWMP and RAA, as well as a link to a recording of the webinar, are available to download for review at the City's web site at **[Beach Cities Enhanced Watershed Management Plan](https://www.redondo.org/civicax/filebank/blobdload.aspx?t=40665.95&BlobID=39451)** **<https://www.redondo.org/civicax/filebank/blobdload.aspx?t=40665.95&BlobID=39451>**.

COORDINATION

This project has been coordinated by the Public Works Engineering Division.

FISCAL IMPACT

There is no fiscal impact associated with this action, however, failure to approve the plan and not submitting it to the Board by June 30, 2021 could result in potential fines and penalties. As described above, the draft Updated EWMP includes planning-level cost estimates for implementation of the proposed structural BMPs and estimated cost are presented as an aid for decision making, and contain considerable uncertainties. Given the many variables associated with the projects, the cost estimates include a wide range and are subject to change based on final design. Until the project is competitively bid, uncertainty of the true cost will remain. The project compliance schedule and construction sequencing are staggered and being proposed through 2028. Staff and Beach Cities Group partners will continue to pursue outside funding and grants to help cover a portion of the costs. For example, the Fulton Playfield project will be submitted for Safe Clean Water Funding in July 2021.

APPROVED BY:

Joe Hoefgen, City Manager