

Print Application

RFP Title: Urban Flood Protection Grant Program - January 2020

Project Title: Manhattan Beach Stormwater Infiltration Project

Estimated Date of Completion: 3/31/2023

Funds Requested(\$): 4,936,566.00

Other Sources of Funds(\$): 1,691,286.00

Total Budget(\$): 6,627,852.00

Applicant Organization: City of Manhattan Beach

County: Los Angeles **City/Town:** Manhattan Beach

Applicant Address: 3621 Bell Avenue , Manhattan Beach , CA - 90266

Project Address: 28th Street and The Strand

Federal Tax ID: 966000742

Senate District: 26

Assembly District: 66

US Congressional District: 33

Project Description:

The Manhattan Beach Stormwater Infiltration Project is a multi-benefit project that will capture and retain stormwater runoff from approximately 62% of the drainage area of the City (approximately 1,500 acres) that normally outfalls at the beach at the terminus of 28th Street in the northern part of the City. The 28th Street storm drain outfall extends out to the shoreline, is submerged during high tide and is subject to tailwater conditions which can create backflow in the system and localized flooding. The project will divert stormwater from the 28th Street storm drain at or near the outfall for subsurface pre-treatment, storage and infiltration into the highly permeable native sandy soils. The project will also restore 3.5 acres of beach dune habitat along this highly impacted sandy beach coastline.

Latitude: 33.894513000 **Longitude:** -118.418391000 **Coordinates Represent:** Location of 28th Street Outfall
Coordinates Determined Using: Google Earth

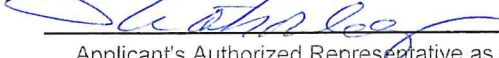
Project Director (Applicant's Representative Authorized in Resolution) (Signature required at bottom of this page)

Name: Stephanie - Katsouleas **Title:** Project Director: Authorized Representative
Phone: 310-802-5000 **Email:** skatsouleas@citymb.info

Project Manager - Person with day to day responsibility for project (if different from authorized representative)

Name: Shawn - Igoe **Title:** Project Manager: Day to day contact
Phone: 310-802-5315 **Email:** sigoe@citymb.info

I certify that the information contained in this project application, including required attachments, is complete and accurate

Signed:  **Date:** 6/15/2020
 Applicant's Authorized Representative as shown in Resolution

Print Name: Stephanie Katsouleas **Title:** Director of Public Works

Print Application

| | | | |
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| Phone: | 310-802-5300 | Email: | skatsouleas@citymb.info |

Project Manager - Person with day to day responsibility for project (if different from authorized representative)

| | | | |
|---------------|---------------|---------------|-------------------------------------|
| Name: | Shawn - Igooe | Title: | Project Manager: Day to day contact |
| Phone: | 310-802-5315 | Email: | sigoe@citymb.info |

I certify that the information contained in this project application, including required attachments, is complete and accurate

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| Signed: | _____ | Date: | _____ |
| | Applicant's Authorized Representative as shown in Resolution | | |

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| Print Name: | _____ | Title: | _____ |
|--------------------|-------|---------------|-------|

Application Overview

| | |
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| Submitting Organization: | City of Manhattan Beach |
| Submitting Organization Division: | Public Works - Utilities Division |

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APPLICANT DETAILS

Applicant: City of Manhattan Beach

Organization:

Applicant: Public Works - Utilities Division

Organization:

Division:

Applicant Address: 3621 Bell Avenue , Manhattan Beach , CA - 90266

PROJECT LOCATION

Latitude : 33.894513000

Longitude: -118.418391000

County: Los Angeles

Estimated Date of 03/31/2023

Completion:

Project Address (or 28th Street and The Strand

nearest cross

street):

Nearest City/Town: Manhattan Beach

Cordinates Location of 28th Street Outfall

Represent:

Coordinates Google Earth

Determined Using:

PROJECT BUDGET

Funds Requested(\$): 4,936,566.00

Other Sources of 1,691,286.00

Funds(\$):

Total Budget(\$): 6,627,852.00

Funding Program

Applied

Proposition 68 - Urban Flood Protection Grant Program

Yes

| Project Management Role | Title | First Name | Last Name | Phone | Fax | Email |
|--|----------------------------|------------|------------|--------------|-----|-------------------------|
| Project Director: Authorized Representative | Public Works Director | Stephanie | Katsouleas | 310-802-5300 | | skatsouleas@citymb.info |
| Project Manager: Day to day contact | Utilities Division Manager | Shawn | Igoe | 310-802-5315 | | sigoe@citymb.info |

Applicant Information

Name: City of Manhattan Beach
Division: Public Works - Utilities Division
Address: 3621 Bell Avenue Manhattan Beach, CA , 90266
Federal Tax ID: 966000742

Person Submitting Information

Submitter Name: Shawn Igoe
Submitter Phone: 310-802-5315
Submitter Fax:
Submitter Email: sigoe@citymb.info

| Legislative Information | Primary | Additional District(s) |
|---------------------------|---------|------------------------|
| Senate District | 26 | |
| Assembly District | 66 | |
| US Congressional District | 33 | |

| Contacts | Name | Phone | Email |
|---|------------|--------------|-------------------|
| City of Manhattan Beach Public Works Department - Utilities Division | Shawn Igoe | 310-802-5315 | sigoe@citymb.info |

| Cooperating Entities | Role | Name | Phone | Email |
|----------------------|---|-----------------|--------------|------------------------------|
| The Bay Foundation | Partner in Dune Restoration Project Component | Karina Johnston | 310-216-9824 | KJohnston@SantaMonicaBay.org |

| Pre Submission Attachment Title | Phase | Submission Period | Date & Time |
|--|--------|-------------------|-----------------------|
| 1.1 Project Proposal Form Signature Page | PHASE1 | PRE SUBMISSION | 6/15/2020 11:23:49 AM |
| 1.3 Cost Estimate | PHASE1 | PRE SUBMISSION | 6/15/2020 11:24:59 AM |
| 1.4 Community Engagement Summary | PHASE1 | PRE SUBMISSION | 6/15/2020 11:29:04 AM |
| 1.5 Site Plan | PHASE1 | PRE SUBMISSION | 6/14/2020 11:50:31 AM |
| Photo 1of5 - 28th Street Outfall | PHASE1 | PRE SUBMISSION | 6/14/2020 11:46:52 AM |
| Photo 2of5 - 26th Street Parking Lot | PHASE1 | PRE SUBMISSION | 6/14/2020 11:47:23 AM |
| Photo 3of5 - Bruce's Beach Park | PHASE1 | PRE SUBMISSION | 6/14/2020 11:47:51 AM |
| Photo 4of5 - Bruce's Beach Park | PHASE1 | PRE SUBMISSION | 6/14/2020 11:48:14 AM |
| Photo 5of5 - Dunes at 28th Street | PHASE1 | PRE SUBMISSION | 6/14/2020 11:48:52 AM |

Download all Pre Submission Attachments



| Post Submission Attachment Title | Phase | Date & Time Attached |
|--|-------|----------------------|
| No Post Submission Attachments Available to Display | | |

| Post Award Attachment Title | Phase | Date & Time Attached |
|---|-------|----------------------|
| No Post Award Attachments Available to Display | | |

Questionnaire - Phase1

STEP 1: PROJECT PROPOSAL

Please go to <http://resources.ca.gov/grants/ufp/> to access the program guidelines and find the templates to upload on the Attachments tab.

PROJECT SUMMARY

Describe the discrete project including expected project deliverables and current site conditions.

Answer: The Manhattan Beach Stormwater Infiltration Project is a multi-benefit project that will capture and retain stormwater runoff from 62% of the drainage area of the City (approximately 1,500 acres as shown on page 2 of the attached Site Plan). This runoff normally outfalls at the beach at the terminus of 28th Street in the northern part of the City. As seen in the attached Photo 1, the 28th Street storm drain outfall extends out to the shoreline, is submerged during high tide and is subject to tailwater conditions which can create backflow and localized flooding. The project will divert stormwater from the 28th Street storm drain at or near the outfall for subsurface pre-treatment, storage and infiltration into the highly permeable native sandy soils. The project will also restore 3.5 acres of beach dune habitat along this 0.6-mile reach of sandy beach coastline.

The project concept developed for the Beach Cities Watershed Management Group's Enhanced Watershed Management Program (EWMP) sites the subsurface infiltration system along the length of public beach extending north and south from the 28th Street Storm Drain outfall (see Site Plan, p. 4). Preliminary conceptual modeling for this project includes a diversion structure with a capacity between 128-160 cubic feet per second (cfs). In this project concept, runoff enters the forebay from the 28th Street Storm Drain where it is pre-treated by a full capture trash device to remove gross solids. Runoff exits the forebay into a series of sixteen parallel

perforated pipes extending laterally from both sides of the forebay. The perforated pipes are sandwiched by a tightly woven geo-textile and a geo-grid lain amongst a bed and fill of gravel to enhance storage prior to infiltration into native soils. The storage capacity of the forebay and infiltration system is estimated between 3.68-4.6-acre feet. Preliminary conceptual modeling for this project estimates an infiltration rate of 13 inches per hour through the sandy beach soils in all three locations, allowing an estimated total capture volume up to 570-acre feet during the 90th percentile rain year.

Due to potential site constraints along the beach such as high groundwater levels and anticipated sea level rise which could limit the infiltration capacity of the project, the City is also considering two additional publicly-owned sites near the outfall of the 28th Street Storm Drain system at higher elevation than the beach that could provide additional offline storage and/or infiltration capacity to supplement the beach location if needed. These sites include a three-acre public park (Bruce's Beach Park) and the adjacent 26th Street Parking Lot (see Site Plan, p. 3). As shown in the attached Photos 3 and 4, Bruce's Beach Park is situated on a sloping terraced grassy hillside between 26th and 27th Streets to the north and south, and Highland Ave. and Ocean Drive to the east and west. A small basketball half-court is located in the center of the park and numerous shade trees and park benches are located near the top of the park. There is a dog-on-leash area just west of the basketball courts. The park is surrounded by public sidewalks and there are Beach Cities Transit and City of LA DOT Commuter Express stops at the southeast corner of the park. In addition, the second alternative project location, the 26th Street Parking Lot, is a public lot with approximately 68 stalls and five-hour metered parking available twelve hours per day. As shown in the attached Photo 2, this parking lot includes upper and lower decks paved with impervious asphalt and there are mature trees peppered throughout the lot. A feasibility study is underway to determine the optimal location or combination of locations for this project. The recommended design alternative is expected to be determined by July 2020 and will therefore be determined prior to the Site Visit should this project be selected to move forward for funding.

PROJECT QUESTIONS

Applicants must answer the following questions, as applicable. If a question does not apply to the project, indicate "Not Applicable" with a brief explanation. Do not leave blank fields.

Eligibility, Statutory Requirements and Project Need

- 1 Explain how the project addresses flooding in an urbanized area and will protect persons and property from flood damage. Include information on current conditions and a brief history of flooding on the project site.**

Answer: The City of Manhattan (City) is located in the southwestern coastal area of Los Angeles County, part of "the highly urbanized South Bay region" as described in the City's General Plan. The City is bordered by the cities of El Segundo to the north, Hawthorne and Redondo Beach to the east, and Hermosa Beach to the south. The population of the City is approximately 35,000 based on 2010 US Census Bureau data, with approximately 16,000 households and population density of 8,914.7 people per square mile. It is a beach community fronting Santa Monica Bay with 2.1 miles of low-lying beachfront less than 100 feet in elevation prone to coastal flooding due to tidal events, storm surges and precipitation events. Historically, flooding in the City has been the result of heavy rainstorms with specific damage occurring along coastal areas and low-lying areas; engineering records indicate that localized flooding of consequence has roughly every 20 years. The City's pier was destroyed by storms in 1913, 1940 and 1980.

The Manhattan Beach Coastal Resiliency and Climate Change Adaptation Project is currently underway through a grant from the California Coastal Commission to plan for climate change in the Coastal Zone, particularly for sea level rise, extreme high tides, flooding, storm events and coastal erosion. The City is using the USGS CoSMoS 3.0 model to analyze potential impacts from sea level rise on coastal resources and the confluence of impacts from precipitation and storm events on stormwater infrastructure. Initial work under this study assessed the combined projected flooding from sea level rise with the 100-year (1% chance return period) coastal wave event and identified the 28th Street outfall as vulnerable to coastal flooding and erosion under current sea level conditions. With sea level rise projections of 2.46 feet by 2060, assuming a medium-high risk aversion and a RCP 8.5 emissions pathway per the OPC Sea Level Rise Guidance recommended by the Coastal Commission, the vulnerabilities of the 28th Street outfall and storm drain system are expected to increase. Diversion and offline storage of stormwater from the 28th Street Storm Drain system will help alleviate these impacts at the outfall and help to alleviate upstream flooding due to backflow into the system. Infiltration of diverted freshwater

(urban runoff) into shallow coastal groundwater will help prevent saline groundwater intrusion associated with sea level rise thereby protecting subsurface infrastructure such as stormwater and sewer pipes from corrosion.

In the upper portion of the tributary area to the project there is a stormwater detention basin at Polliwog Park located in a sump area that captures stormwater runoff from a 488-acre tributary area in the upper portion of the 28th Street storm drain system. The Manhattan Beach Pump Station owned and operated by Los Angeles County Flood Control District (LACFCD) releases the detained stormwater once the storm event has subsided and the capacity of the pump and the downstream system are restored. Extreme weather events have overwhelmed this detention system resulting in localized flooding of Polliwog Park and the surrounding ball fields and playgrounds during the 2004-05, 2017-18 and 2019-20 storm years. conducted The Manhattan Beach Pump Station Hydrology and Hydraulics Analysis (April 2019) conducted for LACFCD analyzed the existing hydraulic condition of Polliwog Park and showed that it experiences flooding during the 10-, 25-, and 50-year storm events. During the 50-year, 4-day storm event a full five days is required to pump down the detention basin. Increasing the capacity of the lower portion of the 28th Street Storm Drain system by creating offline storage and infiltration via highly permeable soils at the outfall may facilitate more rapid release of detained stormwater from the Polliwog Park detention basin and alleviate the duration of flooding of the ball fields and playground areas.

2 How does the project provide flood mitigation in accordance with applicable design storm requirements (local, state or federal standards)?

Answer: During the 85th percentile, 24-hour design storm event, this project is estimated to capture and retain approximately 11-acre feet. As described in Question 1, the diversion of stormwater from the 28th Street Storm Drain system and the offline storage and infiltration of approximately 11-acre feet of stormwater will help alleviate coastal flooding impacts to the 28th Street Storm Drain system infrastructure, particularly at the outfall, by increasing the hydraulic capacity of the system during a storm event and alleviating upstream flooding due to backflow in the system. The conceptual design for this project is based on the 90th percentile critical rain year for attainment of water quality effluent limitations (design rain year) which will result in approximately 570-acre feet of stormwater capture and infiltration during the design rain year. Preliminary conceptual design parameters for the project were derived from SBPAT, a regional hydraulic model using historical storm event data. As discussed in the Beach Cities EWMP and Reasonable Assurance Analysis, flow volume, pollutant concentration, and pollutant load reduction results were generated from the quantification analysis component of the SBPAT model which: calculates and tracks inflows to projects, treated discharge, bypassed flows, evaporation, and infiltration at each 10 minute time step; distinguishes between individual runoff events by defining six-hour minimum inter-event time in the rainfall record, yet tracks inter-event antecedent conditions; tracks volume through the project and summarizes and records these metrics by storm event; and produces a table of each project's hydrologic performance.

3 How will the project be implemented with Low Impact Development (LID) techniques? If not, describe why LID is not feasible.

Answer: This project will utilize LID techniques to reduce the volume of dry weather and stormwater runoff discharging through the outfall of the 28th Street Storm Drain system into the Santa Monica Bay. It will also utilize the natural assimilative capacity of the native beach sand and natural biofilms that form within the vadose zone below the infiltration trench to filter and biodegrade pollutants in the runoff as it infiltrates. Pretreatment systems will remove trash, debris, oil and grease and sediment prior to the natural infiltration process. Additionally, the City has partnered with The Bay Foundation and the Los Angeles County Department of Beaches and Harbors to restore approximately 3.5 acres of coastal dune habitat along the highly impacted beach in this area (see attached Photo 5 and page 5 of the attached Site Plan which shows the Beach Dune Restoration project site plan). This dune restoration component will include the area of beach from 36th Street to 23rd Street, which equates to approximately 0.6 miles of coastline. The restoration project will involve the removal of non-native ice plant vegetation, seeding/planting of native vegetation, strategic installation of temporary sand fencing as vegetation establishes, installation of symbolic fencing on existing pathways, and installation of educational features like interpretive signage. This dune habitat restoration will result in increasing habitat for endangered shorebirds, accretion of sediment and preventing coastal erosion.

4 Describe any innovative techniques to reduce flooding to be implemented in the project.

Answer: This project will build upon the nature-based approach piloted by the award-winning Hermosa Beach Infiltration

Trench for dry weather and low storm flows. This project will scale up the Hermosa Beach approach by capturing and infiltrating runoff from a much larger drainage area and from more significant storms with higher rainfall. The project will take advantage of the native sandy soils at the outfall of the 28th Street storm drain system and construct approximately 3.68-4.6 acre-feet of offline storage to maximize the volume of stormwater that can be diverted from the storm drain system thus alleviating potential backflow into the system during storms and coastal flooding events. The reestablishment of historical coastal dune habitat will create a resilient, living shoreline to buffer coastal infrastructure from climate change, coastal storms, and sea level rise. In addition, the City plans to utilize the Envision framework developed by the Institute for Sustainable Infrastructure [SustainableInfrastructure.org] to identify sustainable approaches that can be utilized in the planning, design, construction and operation of the project.

5 How will the effectiveness of the project be monitored and assessed?

Answer: A detailed Monitoring Plan and Quality Assurance Project Plan will be developed for the project once the preferred design alternative is chosen following the preliminary design (30%) is complete. Continuous monitoring of flows diverted/captured by the system will be recorded electronically. Five-minute precipitation data recorded at the nearby Los Angeles County Department of Public Works (LACDPW) precipitation gauge Redondo Beach Yard (ID 372) will be used to document storm duration and intensity and calculate runoff volume/inflow to the project which will then be compared to the measured outflow over the same period of time to obtain the capture volume of the project for each storm event. The effectiveness of the project in eliminating discharge at the outfall to Santa Monica Bay from smaller storms will also be evaluated consistent with the EWMP reasonable assurance analysis strategy for meeting the Santa Monica Bay Bacteria TMDL objectives.

Water quality benefits will be assessed through monitoring data collected via the Beach Cities Coordinated Integrated Monitoring Program which conducts paired outfall and receiving water quality data during three wet weather events per year from the 28th Street Storm Drain outfall. To the extent that flows are diverted from the receiving water and into the infiltration system, 100% removal of pollutants in the diverted flow is accomplished; thus, water quality monitoring of pollutant concentrations in the diverted flows along with volume diverted will provide data needed to assess pollutant removal. In addition, the long-term water quality benefits of the project will be measured through ongoing bacterial shoreline monitoring which is conducted five (5) days per week in the wave wash directly in line with the 28th Street Storm Drain outfall. This data will be analyzed over time to assess whether a reduction in exceedances of bacterial water quality objectives can be correlated with the project startup. A Project Monitoring Report will be prepared based on the first year of flow and water quality monitoring data following startup of the project system.

6 Describe the multiple benefits offered by the project (e.g., economic, environmental, social, improved physical and mental health, etc.).

Answer: The Manhattan Beach Stormwater Infiltration project is a true multi-benefit project. In addition to the flood protection benefits described in Questions 1 and 2, this project will address well documented water quality issues in Santa Monica Bay. There are multiple Total Maximum Daily Loads (TMDLs) in place for the Santa Monica Bay (SMB) for bacteria, marine debris (trash), and DDT and PCBs. Recently, mercury and arsenic were added to the State's 303(d) list of pollutants causing water quality impairment in SMB. Monitoring conducted 5 days per week in the wave wash directly in line with the 28th Street Storm Drain outfall shows persistent exceedances of the wet weather receiving water limitations based on recreational water quality objectives for fecal indicator bacteria and this beach consistently receives an "F" grade on Heal the Bay's Beach Report card during wet weather. The design goal of the project is to intercept and infiltrate all dry weather and wet weather runoff up to approximately 570 acre-feet during the 90th percentile critical rain year from the highly urbanized tributary area. This will eliminate 100% of all impairing pollutants in the diverted/infiltrated volume and is anticipated to achieve a 36% reduction in indicator bacteria pollutant loading to the Santa Monica Bay during the critical year when compared to the existing conditions modeled in the Beach Cities EWMP. Since fecal indicator bacteria water quality exceedances are predictors of risk to human health, this improved recreational water quality will reduce the incidence of illness in beach goers and recreational ocean users, particularly surfers who are more likely to recreate during wet weather.

Although the system design is focused on meeting the required reduction of indicator bacteria to protect beneficial uses for human recreation, the system will also capture and prevent the discharge of all 303-listed

pollutants for Santa Monica Bay in the diverted flows thereby protecting all beneficial uses of Santa Monica Bay, including: commercial and sport fishing; marine habitat; shellfish harvesting; and spawning, reproduction and/or early development of fish. Additionally, the diversion system will be equipped with trash capture devices to remove land-based litter from the diverted flow. Sediment and associated sediment-born pollutants such as DDT and PCBs will also be removed in the pretreatment system prior to infiltration.

The project will also result in improved resiliency to climate change. The infiltration of fresh stormwater runoff will help prevent intrusion of shallow saline groundwater associated with sea level rise and protect subsurface infrastructure from the effects of rising sea level by helping to maintain the freshwater/seawater barrier and prevent the landward intrusion of seawater and resultant corrosion of infrastructure. The offline storage and infiltration of storm flows will alleviate backflow and upland flooding in the system. To the extent feasible, the selected design will aim to convey stormwater through the infiltration system by gravity flow to minimize energy needed to pump the water, thus avoiding new greenhouse gas emissions associated with pumping.

The dune habitat restoration will result in an increase in critical habitat for rare coastal strand vegetation and wildlife and restore critical ecosystem functions such as the accretion of sediment which will help protect against coastal erosion and provide a buffer against extreme tidal events, coastal storms and sea level rise. The dune habitat will provide additional passive recreational opportunities such as bird watching and the chance for beachgoers to interact with local natural habitats that are currently absent along many of the groomed beaches of the Santa Monica Bay. The site will provide educational opportunities to learn about beach ecology and healthy beach management practices.

7 If the project is serving either a disadvantaged or a severely disadvantaged community, specify which type of community and the tool used to make the determination.

Answer: While this project is not directly serving a disadvantaged or severely disadvantaged community, Manhattan Beach's coast is a primary destination for visitors throughout Los Angeles County. The protection of the City's coastline and essential infrastructure will help maintain a resilient shoreline that will continue to provide educational and recreational opportunities for these communities. The Manhattan Beach Pier is a fishing pier so subsistence fishers from the South Santa Monica Bay area may frequent the pier (note that in California a fishing license is not required to fish from a pier). Currently health advisories for South Santa Monica Bay recommend against eating any amount of barred sand bass, topsmelt, or white croaker; and that children and women of childbearing years should also avoid black croaker and Pacific barracuda. Since these advisories result from the impairments of Santa Monica Bay for DDT, PCBs, arsenic and mercury, reducing loading of these pollutants to the bay will increase the number of species that can be safely caught and utilized by subsistence fishers as well as sport fishers.

8 If the project is serving a disadvantaged or severely disadvantaged community, explain how the project is serving the community and list the direct benefits provided. (See definition of Serving a Disadvantaged or Severely Disadvantaged Community in Appendix P of the Guidelines.)

Answer: Please see response above – this project is not directly serving a DAC or SDAC.

9 If the project is not serving a disadvantaged or severely disadvantaged community, describe how the 25 percent match requirement will be met (private, federal, state, or local funding; in-kind services; etc.).

Answer: As shown in the attached Cost Estimate spreadsheet, sources of funding for the City's match include cash from its General Fund as well as in-kind contribution from the City's General Fund. The dune restoration component of the project will be funded separately through an agreement between the City and The Bay Foundation. The Bay Foundation has received a \$298,000 grant from the California Coastal Conservancy and has in-kind commitments from the City and other project partners, as well as in-kind volunteer support, to fund the dune restoration components.

Los Angeles County's Safe Clean Water Program provides local, dedicated funding to increase local water supply, improve water quality and protect public health in Los Angeles County through a special parcel tax of 2.5 cents per square foot of impermeable surface area on private property: <https://safecleanwaterla.org/about/>. It is forecast that the City will receive up to \$410,000 per year for its municipal stormwater program from the Safe Clean Water Program. Once this funding becomes available in late summer 2020, the City may use a portion of its municipal Safe Clean Water Program funds to offset the General Fund portion of its match for this project.

10 If the project is subject to the Stormwater Resource Planning Act, provide the name of the Storm Water Resource Plan (SWRP) or functionally equivalent plan that incorporates the project.

Answer: The Beach Cities Enhanced Watershed Management Program (Beach Cities EWMP) was approved as a functionally equivalent Storm Water Resource Plan and incorporated into the Los Angeles County Integrated Regional Water Management Plan (LA IRWMP). This project has also been accepted into the LA IRWMP and is part of the Stormwater Resources Plan approved by the State Water Resources Control Board via the Beach Cities EWMP.

Manhattan Beach, along with adjacent municipal partners, implements the Beach Cities Enhanced Watershed Management Program (EWMP) in order to address water quality impairments consistent with the Los Angeles MS4 Permit issued by the Los Angeles Regional Water Quality Control Board (LARWQCB). There are multiple Total Maximum Daily Loads (TMDLs) in place for the Santa Monica Bay (SMB): SMB Beaches Bacteria TMDL (dry and wet weather), nearshore and offshore SMB Debris (Trash) TMDL, and the SMB DDT and PCB TMDLs. Recently, mercury and arsenic were added to the list of pollutants causing impairment of water quality in the Santa Monica Bay (included on California's 303(d) list). This project is the City's highest priority capital project identified in the EWMP for addressing the fecal indicator bacteria impairments established to protect and restore year-round recreational beach water quality as well as trash impairments associated with MS4 discharges.

11 If the project is subject to the Stormwater Resource Planning Act but is not included in a SWRP or functionally equivalent plan, explain why. Describe steps taken to incorporate the project into a new or existing SWRP or functionally equivalent plan and the anticipated timeline for plan completion or project incorporation.

Answer: Not Applicable – As described in the response to Question 10, this project is already included in an approved, functionally equivalent SWRP.

12 If applicable, how will the project impact communities upstream or downstream from the project site?

Answer: This project is located at the furthest downstream point of the 28th Street Storm Drain System, thus there are no communities downstream that will be impacted by the project. The project will impact communities upstream of the project site by providing increased hydraulic capacity to the storm drain system during a coastal flooding event thus reducing the incidence of backflow into the system and upland flooding. The offline storage and infiltration capacity of the system post-storm may also allow the upper portion of the 28th Street Storm Drain system to discharge stormwater detained at Polliwog Park more quickly, thus reducing the duration of flooding in this part of the City. The infiltration of freshwater (stormwater) into the subsurface soils at the coast will help prevent shallow seawater intrusion and will thus protect essential community infrastructure such as coastal zone storm drain and sanitary sewer pipes, water supply pipes, natural gas mains, underground telecommunication lines and underground electrical lines from corrosion. The infiltration of stormwater during the 85th percentile, 24-hour storm event will result in the capture of approximately 11 acre-feet of stormwater with 100% pollutant load removal from the captured stormwater, thus improving downstream marine water quality. The project is expected to achieve a 36% reduction in indicator bacteria pollutant loading to the Santa Monica Bay (as compared to the baseline load modeled in the Beach Cities EWMP for the 90th percentile critical rain year), which will protect recreational water quality and public health as well as support the myriad additional beneficial uses designated for the Santa Monica Bay such as commercial and sport fishing, marine habitat, shellfish harvesting and potential beneficial use for spawning, reproduction and/or early development of fish. The project will also eliminate land-based litter from reaching the beach and the Santa Monica Bay which will result in an improved beachgoing experience for residents and visitors as well as protect marine life. The dune habitat restoration will improve coastal dune habitat ecosystem services, such as providing habitat for endangered shorebirds, facilitating the accretion of beach sediment and prevention coastal erosion, and increasing carbon sequestration.

The surrounding community will be impacted by construction of the project; however, the City plans to address construction impact concerns with community stakeholders during the design phase of the project and plans to utilize the Envision framework developed by the Institute for Sustainable Infrastructure to minimize construction impacts to the extent feasible. Once the project is constructed there should be no or less than significant impacts to the community from the operation of the project because the system will be located underground, there will be no visual obstructions to the community and the surface conditions will be restored and enhanced.

13 Explain how the project addresses the State's critical need to address flooding and how it is consistent with the

California Water Action Plan.

Answer: The California Water Action Plan (Update 2018) "recommends significant additional investment in infrastructure and ecosystem improvements to overcome challenges to sustainability" and recommends improved integrated water management, strengthened resiliency and operational flexibility and restored ecosystem functions among other goals. This project is an opportunity to provide flood risk reduction and surface water storage per Update 2018's Recommended Action 2.1 as it will divert, store and infiltrate approximately 570 acre-feet of stormwater from the 28th Street Storm Drain system during the 90th percentile rain year to alleviate impacts on the storm drain system's infrastructure, particularly at the outfall which has been identified as being vulnerable to flooding and coastal erosion under current sea level conditions. By providing offline storage and infiltration of stormwater, the project will increase the hydraulic capacity of the system during a storm event and alleviate upland flooding due to backflow in the system from coastal flooding events. It may also help to relieve the duration of flooding at the Polliwog Park detention system, which experiences flooding during large storm events and delayed drawdown of detained stormwater, by providing capacity for more rapid drawdown of the detained water into the lower portion of the 28th Street Storm Drain system. Additionally, infiltration of freshwater (urban runoff) will help prevent shallow saline groundwater intrusion associated with sea level rise and will further protect subsurface infrastructure such as stormwater and sewer pipes from corrosion, which fits into the Update 2018 Action 2.1 goal of assisting local agencies with long term solutions for infrastructure management.

The Manhattan Beach Stormwater Infiltration Project is also consistent with the Update 2018's Recommended Action 3.2 of facilitating multi-benefit water management projects. In addition to the flood protection benefits, this project is the City's highest priority project for addressing water quality impairments in the Santa Monica Bay, specifically for meeting dry and wet weather fecal indicator bacteria total maximum daily loads (TMDLs) established to protect and restore year-round recreational beach water quality. This outcome will improve public health as fecal indicator bacteria water quality exceedances are predictors of risk to human health. The project will also address SMB TMDLs for trash/debris and sediment-borne DDT and PCBs from 62% of the City's area. Furthermore, the project will result in the creation of local habitat and restoration of critical ecosystem functions through approximately 3.5-acres of coastal dune restoration. This component of the project is consistent with the Update 2018 Goal 3 – Restore Critical Ecosystem Functions as it will result in increasing habitat for endangered shorebirds, accretion of sediment and prevention of coastal erosion which will in turn provide a more resilient, living shoreline to buffer coastal infrastructure from climate change, coastal storm surges, and sea level rise.

14 For development projects, how will the project provide workforce education and training, contractor, and job opportunities for disadvantaged communities? If not applicable or practicable, explain why.

Answer: The dune restoration portion of the project led by The Bay Foundation will utilize the Los Angeles Conservation Corps to assist with restoration activities. The City will also initiate the California Conservation Corps consultation process once the preferred project alternative has been selected so that any additional work that might be suitable for Corps members can be identified. The City is committed to submitting the consultation forms to both the California Conservation Corps and the California Association of Local Conservation Corps to determine how Corps services might be used for other aspects of the project to further support workforce education and training, contractor and job opportunities for disadvantaged communities.

15 For development projects, describe how the following is included in the project design. If not feasible, explain why:

- a. Efficient use and conservation of water supplies.**
- b. Use of recycled water.**
- c. Storm water capture to reduce storm water runoff, reduce water pollution and/or recharge groundwater supplies.**
- d. Provision of safe and reliable drinking water supplies to park and open-space visitors.**

Answer: The City plans to utilize the Envision Framework developed by the Institute for Sustainable Infrastructure for this project. The Envision Framework entails 64 sustainability and resilience credits that include reducing operational and construction water consumption, enhancing public space and amenities, managing stormwater and protecting surface and ground water quality among many others. The City plans to use the Envision framework during the planning, design, construction and operation and maintenance to guide the project to a more sustainable outcome. The categories below will be specifically included in the following ways:

- a. Efficient use and conservation of water supplies.**

While the operation of the project will not require a water supply and will not result in water usage, the project team will identify ways to reduce water consumption during construction by considering strategies such as dry dust control, use of water efficient fixtures in construction trailers, use of recycled or harvested rainwater for equipment and vehicle wash stations, and other strategies to be determined during the initial construction management meetings.

b. Use of recycled water.

This project may offset recycled water needs for injection of freshwater into seawater barrier wells to prevent seawater intrusion as it will capture and infiltrate approximate 570 acre-feet of freshwater (stormwater) at the coast during the 90th percentile rain year. In addition, the use of recycled water will be considered for irrigation purposes to establish native dune plantings and for irrigation at the Bruce's Beach Park and parking lot locations should they be selected.

c. Storm water capture to reduce storm water runoff, reduce water pollution and/or recharge groundwater supplies.

This project will reduce the volume of dry weather and stormwater runoff discharging through the outfall of the 28th Street Storm Drain system into the Santa Monica Bay by capturing, diverting and infiltrating approximately 570 acre-feet of stormwater during the 90th percentile rain year. The project will take advantage of the natural infiltrative and assimilative capacity of the native beach sand to maximize the volume of stormwater captured. In addition, the project will utilize the natural abilities of the native beach sand to filter and biodegrade pollutants in the runoff as it infiltrates, thus reducing pollutant loading to the Santa Monica Bay.

d. Provision of safe and reliable drinking water supplies to park and open-space visitors.

The infiltration of freshwater (urban runoff) will help prevent shallow saline groundwater intrusion associated with sea level rise and will protect subsurface infrastructure such as water supply pipes, sanitary sewer pipes, natural gas mains, underground telecommunication lines and underground electrical lines from corrosion, thus maintaining the City's ability to continue to provide safe and reliable drinking water and other services to its coastal areas.

16 What will happen to the project if grant funding is not awarded (e.g., loss of matching funds, impacts on overall project vision, project momentum, timing difficulties, etc.)?

Answer: The City does not currently have the funds to implement the project without the assistance of an outside source of funding. Accordingly, if Urban Flood Protection grant funds are not awarded, the implementation of the project will be delayed until such time as an alternate outside funding source becomes available. The City will continue to pursue other grant funding sources as they become available.

Additionally, the City plans to request funding through the Los Angeles County Safe Clean Water Regional Infrastructure Program, however if the Urban Flood Protection funds are not awarded it will delay the project because Regional Infrastructure Funding is programmed on a five-year schedule and project implementation funding must be staggered. The multi-step process of applying for Regional Infrastructure funding under the Safe Clean Water Program includes: 1) submittal of the project feasibility study (equivalent to Preliminary Design) to a scoring committee who vets and assigns an official score to the project, 2) followed by submittal to the appropriate Watershed Area Steering Committee who would then review and determine whether to approve the project for inclusion in its five-year budget, 3) a final review by the Regional Oversight Committee, and 4) final approval by the Los Angeles County Board of Supervisors. Under this process the earliest this project could be awarded funded would be for fiscal year 2021-22, but it is more likely funding would be allocated for FY2022-23 or later.

Statutory and Program Priorities

17 For development projects, what is the status of applicant's consultation with the California Conservation Corps or a certified community conservation corps about the project?

Answer: The Bay Foundation has already subcontracted with the Los Angeles Conservation Corps to implement the dune restoration components of the project. The City will initiate the California Conservation Corps consultation process once the preferred project alternative has been selected so that any work that is suitable for Corps members can be identified.

18 For development projects, describe any water efficiencies, storm water capture for infiltration or reuse, or carbon sequestration and greenhouse gas emissions reduction features included in the project design. If not feasible, explain why.

Answer: This project will capture and infiltrate up to 570 acre-feet of stormwater runoff during the 90th percentile rain year from the 28th Street storm drain system with tributary area of 1,500 acres of the City. The captured runoff will be diverted from the storm drain near the outfall of the 28th Street Storm Drain system and be directed into a subsurface infiltration system. The project will provide offline storage at the outfall to maximize the stormwater capture volume. The dune restoration component of the project will include plantings of native plant species which will require no supplemental water for ongoing maintenance once established. If the Bruce's Beach and/or parking lot sites are chosen for the project, newly planted trees and landscaping will also provide carbon sequestration and be drought tolerant. There will be no net increase in potable water use associated with the project. To the extent feasible, the selected design will aim to convey stormwater through the infiltration system by gravity flow to minimize energy needed to pump the water, thus avoiding new greenhouse gas emissions associated with pumping. If the parking lot site is chosen, energy-efficient lighting will be installed in place of existing lighting, and the feasibility of installing solar panels and EV charging stations will also be considered.

19 How does the project leverage private, federal, or local funding?

Answer: As shown in the attached Cost Estimate, the City plans to use its General Fund to fund this project. In addition, The Bay Foundation has received a \$298,000 grant from the California Coastal Conservancy and has in-kind commitments from the City and other project partners, as well as in-kind volunteer support, to fund the dune restoration components.

Los Angeles County's Safe Clean Water Program provides local, dedicated funding to increase local water supply, improve water quality and protect public health in Los Angeles County through a special parcel tax of 2.5 cents per square foot of impermeable surface area on private property: <https://safecleanwaterla.org/about/>. It is forecast that the City will receive up to \$410,000 per year for its municipal stormwater program from the Safe Clean Water Program. Once this funding becomes available in late summer 2020, the City may use a portion of its municipal Safe Clean Water Program funds to offset the General Fund portion of its match for this project.

20 If the project will result in displacement (e.g., unsheltered individuals, neighborhood gentrification, etc.), what solutions are included in the project design?

Answer: NA – this project will not result in displacement of unsheltered individuals or neighborhood gentrification.

21 If the project is to be publicly accessible, what features in the design are intended to maximize safe and equitable access to the project?

Answer: Once constructed, the project will be almost entirely located underground such that public access to the above ground site chosen for the project (i.e., beach, park, parking lot) will remain unchanged. The three sites being considered for the project are all publicly owned sites with equitable access for all. The potential beach site is accessible through a public parking lot that runs from 36th Street to 45th Street, while the Bruce's Beach Park location is accessible via the public 26th Street parking lot which is also the third potential project site. The beach and park are accessible via multiple public transportation options, including Beach Cities Transit which consists of two fixed routes that connect Redondo Beach, Hermosa Beach, Manhattan Beach and El Segundo and also provides transit connections with Metro Bus & Rail, Torrance Transit, Gardena Bus Lines, Palos Verdes Peninsula Transit Authority and Lawndale Beat. There are bus stops for the Beach Cities Transit and City of Los Angeles DOT Commuter Express located at the southeast corner of Bruce's Beach park, as well as a number of stops located at Highland Avenue and 30th Street within 0.1 miles of the beach.

22 How does the project utilize natural infrastructure?

Answer: This project will utilize the natural assimilative capacity of the native beach sand to infiltrate stormwater and dry weather runoff from the 28th Street Storm Drain system. Natural biofilms that form within the vadose zone below the infiltration system will filter and biodegrade pollutants in the runoff as it infiltrates. In addition, the subsurface infiltration system will be protected above by the approximately 3.5 acres of native dune habitat that will be established by The Bay Foundation in coordination with the City and Los Angeles County Department of Beaches and Harbors through removal of invasive ice plant along a highly impacted beach and replanting with native dune plant species to increase the ecosystem services of this beach segment. Coastal dunes provide a resilient, living shoreline to buffer coastal infrastructure from coastal storms and sea level rise associated with

climate change. This dune habitat restoration will increase habitat for endangered shorebirds, support accretion of sediment, and prevent coastal erosion.

23 How does the project use multi-benefit approaches that meet multiple needs at once?

Answer: This project is truly a multi-benefit project that will realize the following benefits as described in more detail in Questions 1, 2 and 6: (1) urban flood protection through increased hydraulic capacity and alleviation of backflow and coastal flooding in the storm drain system; (2) protection of public health via improved recreational beach water quality through achievement of the Santa Monica Bay Beaches Bacteria TMDL waste load allocations for fecal indicator bacteria; (3) protection of multiple Santa Monica Bay beneficial uses through water quality improvements achieved through capture, pretreatment and infiltration of stormwater runoff and the associated pollutant loads; (4) protection of subsurface urban infrastructure from the corrosive effects of shallow seawater intrusion associated with sea level rise associated with climate change, (5) increased coastal resiliency and protection from beach erosion through coastal dune habitat restoration, and (6) increased natural ecosystem services and recreational and educational opportunities provided by the dune habitat restoration.

24 How was the project developed with local community engagement?

Answer: The City of Manhattan Beach is a member of the Beach Cities Watershed Management Group (Beach Cities WMG), which also consists of the Cities of Redondo Beach, Hermosa Beach, Torrance and the Los Angeles County Flood Control District. The Beach Cities WMG developed the Beach Cities EWMP which includes this project as one of its highest priority capital projects to address water quality impairments in the Santa Monica Bay. During development of the Beach Cities EWMP, public workshops were held on May 21, 2014 at the Joslyn Center in Manhattan Beach and on May 27, 2015 at the Redondo Beach Public Library. An informational presentation was provided followed by a question and answer period to encourage stakeholder input. Concerns were noted and considered during EWMP development by the Beach Cities WMG. The Beach Cities EWMP was then presented to City Council in June 2015 and authorization was given to submit the plan to the Los Angeles Regional Water Quality Control Board. In February 2019, Mayor Steve Napolitano provided a support letter to The Bay Foundation expressing the City's support for the beach dune restoration component of the project.

The City plans to utilize the Envision Framework developed by the Institute for Sustainable Infrastructure to "assess community values, engage stakeholders, and build consensus around the best project solution" <https://sustainableinfrastructure.org/>. The City initiated this process in July 2019 with a kick-off meeting between consultants and City Public Works Utilities and Engineering staff to discuss how the Envision framework could be utilized by the project and begin to identify stakeholders. The Feasibility Study scope of work includes tasks to identify stakeholders and initiate meetings to share project concepts and consider community goals. Up to four (4) community and stakeholder meetings are anticipated during the preliminary design phase of the project.

Receipt of the Safe Clean Water Municipal Program funds requires the City to prepare and make available to the public informational materials containing up-to-date information on the Municipality's actual and budgeted use of the funds. The City will be preparing its individual expenditure plan for Safe Clean Water funds this summer and may include this project in that plan. The project was also presented to the South Santa Monica Bay Watershed Area Steering Committee of the Safe Clean Water Program in February 2020 and was very well received. In addition, the City has received support letters from two community organizations, Heal the Bay and The Bay Foundation, which are included in the attached Community Engagement Summary.

Once a project preliminary design alternative is chosen in collaboration with the community, additional stakeholder events will be planned to share information and receive feedback on the chosen design, and outreach will continue throughout construction and startup. City Council will be advised periodically throughout the process as well.

Project Readiness

25 If the requested funds are insufficient to cover all project costs, what is the funding gap and how will it be bridged?

Answer: The funds requested are sufficient to complete the design and construction of this project in combination with the matching funds presented in the Cost Estimate attachment. The City plans to use its General Fund to cover the planning and engineering design costs, the Feasibility Study that is underway, and in-kind City staff time will be

covered by the City's General Fund and used for project administration, including the preparation of bid documents, grant administration, and contract management. A partnership with The Bay Foundation will be used to cover the dune restoration component of the project. Once available, the City also plans to use a portion of its Safe Clean Water Municipal Program funds to offset the General Funds used for the project.

26 On a scale of 1-10 (with 1 being the least and 10 being the most), how ready is the project for implementation? Explain.

Answer: 8.000

Answer: The project readiness will be an 8 prior to Step 2 of the application process, i.e., the Site Visit. A Feasibility Study is currently underway to select the optimal location or combination of three possible locations for this project that will maximize the stormwater capture volume while minimizing public and environmental impacts. The recommended project alternative is expected to be determined by July 2020 and prior to the Step 2 Site Visit should this project be selected to move forward for funding. The feasibility study report is anticipated to be completed by July 2020 as well and will be available for submittal upon receipt of invitation to Step 3. The feasibility study report will form the basis for initiation of the environmental compliance documentation. Once feasibility study and alternative selection is complete, the City is ready to move forward with final design and construction as soon as funding is available.

27 Describe the status of the following items, including anticipated timing for completion of each:

a Preliminary design.

Answer: A Feasibility Study is currently underway.

b Environmental documentation (CEQA - see definition in Appendix P of the Guidelines).

Answer: Not yet completed – will be completed once a recommended design alternative is selected. The City expects this project to result in a Mitigated Negative Declaration.

c Necessary permits and long-term operation and maintenance commitments/agreements.

Answer: A list of necessary permits will be identified for the project as part of the preliminary design, and the process for securing the permits will proceed in step with final design with final permits to be secured prior to preparation of final construction drawing (plans and specification). Among the permits anticipated for this project are: Los Angeles County Flood Control District encroachment permit as owner/operator of the of the 28th Street Storm Drain; Coastal Development Permit, Construction General Permit for construction projects disturbing one acre or more, electrical permit from Southern California Edison, etc. An operations and maintenance agreement will also be established with LACFCD. Depending on the selected site, other permits or operating agreements may be required such as an operating agreement with Los Angeles County Beaches and Harbors for the beach infiltration alternative.

d Other funding sources needed to complete the project.

Answer: As shown in the attached Cost Estimate, the City will rely on its General Fund and in-kind services covered by its General Fund for part of the match. In addition, the City along with The Bay Foundation has secured funding for the dune restoration portion of the project. Once available, the City also plans to use a portion of its Safe Clean Water Municipal Program funds to offset the General Funds used for the project. These funds should become available by August 2020.

e For acquisitions, willing seller (e.g., purchase agreement, option, discussions, etc.).

Answer: NA- this is not an acquisition project

28 List the legal owners for each parcel within the project footprint and the status of notifications, negotiations, agreements, etc. to implement the project.

Answer: The three sites being considered for this project are all publicly owned sites. The public beach site is owned and operated by LA County Beaches and Harbors and subject to the State of California Department of Parks and Recreation deed granting ownership of the beach to LA County Beaches and Harbors in 1995. The City has been working with LA County Beaches and Harbors to obtain formal approval. LA County Beaches and Harbors staff have given verbal approval and support for the project and stated they are working with their County Counsel to obtain a formal approval in writing. The other two sites, Bruce's Beach Park and the 26th Street parking lot are both owned by the County of Los Angeles, but operated and maintained by the City. The City has the ability, through its agreement with the County of Los Angeles, to make improvements to these facilities.

29 List all entities with jurisdiction over the project and the status of notifications, agreements, meetings, etc. with each jurisdictional entity.

Answer: The Los Angeles County Flood Control District (LACFCD) owns and operates the 28th Street Storm Drain to which this project will connect. Once the design alternative for the project is selected, it will undergo conceptual approval by LACFCD following their protocol. An LACFCD permit will need to be obtained prior to construction. LACFCD is a member of the Beach Cities Watershed Management Group and has been involved with and supportive of the EWMP and this project since its inception. In addition, LA County Beaches and Harbors will need to provide formal approval to construct, operate and maintain the project as described in Question 28 above. The city has been working with LA County Beaches and Harbors and has received verbal approval but is awaiting formal written approval from LA County Counsel. The project is located within the Coastal Zone and as such will require a permit with the Coastal Commission—the Coastal Commission will be engaged as part of the environmental review process. It is notable that the Coastal Commission staff were previously involved in review and approval of the Hermosa Strand Infiltration Trench pilot project as well as performance monitoring of that pilot project after which the beach infiltration alternative is modeled, thus the City anticipates that the Coastal Commission approval will be forthcoming.

Organizational Capacity

30 Describe applicant's experience in completing similar projects.

Answer: The City constructed and maintains the Manhattan Beach Green Belt Infiltration Project which was completed in February 2013 and utilizes the linear greenbelt parkland that runs through the City to intercept and infiltrate dry weather and wet weather low flows from existing storm drains that intersect the parkway. The Project was designed to reduce the downstream peak flow and runoff volume from the 55.2 acres of contributing developed residential land use while also increasing groundwater recharge and subsequently increasing the effective permeability of the developed area.

The City has also converted 130,000 square feet of impervious pavement to pervious pavement at six beach parking lots owned by the City in order to infiltrate dry weather and stormwater run-on to the lots under a Prop 50 grant (see Question 31 below for more details).

In addition, the City's Public Works Engineering Department is responsible for the design and construction of the City's infrastructure [streets, water system, sewer system, storm drain system, park facilities, City buildings (i.e. fire station, community facilities, parking structures, etc.) and transportation/traffic systems] and has a long list of successfully completed projects that can be accessed on its website:

<https://www.citymb.info/departments/public-works/engineering-division> or provided upon request.

31 Describe applicant's experience in managing other grant-funded projects.

Answer: The City funded the Permeable Beach Parking Lots project through a Santa Monica Bay Restoration Commission (SMBRC) Proposition 50 grant. The project construction and post-construction monitoring were completed, and the City submitted a final Project Report which documents the effectiveness of the project and was approved by SMBRC staff. The project was completed in accordance with the original scope with one time extension necessitated by delays in pre-construction monitoring associated with the extremely dry season. The project was highly visible, including coverage of the project in several local papers, and has been well received by the community.

In addition, the City constructed the Manhattan Beach Greenbelt Infiltration project in part through a Prop 84 Clean Beaches – Santa Monica Bay Restoration grant and received a "Project of the Year" award in the Storm Water Quality category from the American Public Works Association (APWA) Southern California Chapter for its work to protect beach health and water quality through the "Greenbelt Low Flow Infiltration Project".

32 Describe applicant's fiscal capacity to carry out the proposed project.

Answer: According to the City's June 2019 Comprehensive Annual Financial Report, the City of Manhattan Beach continues to maintain a sound financial condition. Standard and Poor's reaffirmed the City's AAA Credit Rating on November 4, 2016. Established reserves remain funded, and the City continues to operate efficiently and effectively.

33 Describe applicant's plan for long-term operations and maintenance of the project (see Appendix I of the Guidelines for

requirements).

Answer: The City's Public Works Department is responsible for the operation and maintenance of all public infrastructure and public rights-of-way. This department is comprised of Engineering, Maintenance and Utilities Divisions who are experienced in the operation and maintenance of storm drain infrastructure and have specific experience in the maintenance of stormwater infiltration projects such as the permeable parking lots and Greenbelt Infiltration project.

34 What is the source of funds for ongoing operations and maintenance?

Answer: Los Angeles County Safe Clean Water Municipal Program funds, City of Manhattan Beach General fund.

Collaboration**35 Describe partnerships with other entities and their corresponding roles in the project.**

Answer: While the tributary area to this project is solely in Manhattan Beach, this project was developed in partnership with the Beach Cities Watershed Management Group and is one of the Beach Cities Enhanced Watershed Management Program's highest priority capital projects necessary to achieve water quality goals. The City has also partnered with The Bay Foundation and the Los Angeles County Department of Beaches and Harbors on the dune restoration component of this project. The City has been in discussions with the LA County Beaches and Harbors who have jurisdiction over the public beach site being proposed for the project. LA County Beaches and Harbors have given unofficial approval of the project and indicated that formal approval is forthcoming.

Implementation of the project will also involve cooperation and collaboration between the City of Manhattan Beach and the Los Angeles County Flood Control Districts (LACFCD) who owns a majority of the 28th Street Storm Drain system. The City will need to obtain access permits and an operations and maintenance agreement from LACFCD.

36 Describe past, current and future community involvement (neighbor/user groups, etc.), outreach, partnerships, and support for the project.

Answer: Please see the response to Question 24 and the Community Engagement Summary attachment, which includes support letters from two local community organizations: Heal the Bay and The Bay Foundation. Heal the Bay is an environmental organization with over 30 years of experience and 15,000 members dedicated to making the coastal waters and watersheds of greater Los Angeles safe, healthy, and clean. The Bay Foundation's mission is to "restore and enhance the Santa Monica Bay through actions and partnerships that improve water quality, conserve and rehabilitate natural resources, and protect the Bay's benefits and values".

37 What steps are being taken to ensure the project will not cause unanticipated negative consequences to neighboring communities?

Answer: The City plans to utilize the Envision Framework developed by the Institute for Sustainable Infrastructure to "assess community values, engage stakeholders, and build consensus around the best project solution". Envision consists of 64 sustainability credits organized around five categories, fourteen (14) of which are included in the Quality of Life category which addresses a project's impact on the surrounding community and ensures that the project aligns with community goals. The City initiated this process in July 2019 with a kick-off meeting between consultants and City Public Works Utilities and Engineering staff to discuss how the Envision framework could be utilized by the project and begin to identify stakeholders. The feasibility study scope of work includes tasks to identify stakeholders and initiate meetings to share project concepts and consider community goals. Once a preferred design alternative is determined, the Envision framework, and specifically the Quality of Life category credits, will be consulted to work toward the most sustainable project feasible and to ensure consideration of community well-being, safety, mobility, equity and the protection of cultural resources during the construction and operation of the project.

For more detailed discussion on the Community Engagement strategy, please see the Community Engagement Summary attachment.

Additional Project Characteristics**38 Describe American with Disabilities Act (ADA) access and/or improvements included in the project. If not applicable, explain.**

Answer: If the selected project alternative is the beach infiltration system, ADA improvements will not be required or

appropriate since the intent is to restore the site with beach dune habitat and no hardscape-type improvements. If the parking lot site is part of the selected alternative, ADA-compliant improvements including handicapped parking, ramps, etc., will be incorporated into the design of aboveground amenities on the project site. If the Bruce's Beach Park site is part of the selected alternative, ADA improvements such as sidewalk ramps will be made to the extent required within the constraints of the site which is on a steep slope.

39 Explain how the project incorporates climate adaptation strategies to help protect against climate change impacts.

Answer: The project will result in improved resiliency to climate change. The infiltration of fresh stormwater runoff will help prevent intrusion of shallow saline groundwater associated with sea level rise. This will protect subsurface infrastructure from corrosion by helping to maintain the freshwater/seawater barrier and prevent the landward intrusion of seawater into shallow groundwater. The offline storage and infiltration of storm flows from the 28th Street Storm Drain system will increase the hydraulic capacity of the system to allow it to accommodate increased runoff volumes anticipated during more frequent and severe rain events and will alleviate backflow and upland flooding in the system. In addition, the restoration of 3.5 acres of coastal dune habitat will restore critical ecosystem functions such as the accretion of sediment which will help protect against coastal erosion and provide a buffer against extreme tidal events, coastal storms and sea level rise, while at the same time restoring coastal dune plant community habitat for the benefit of shorebirds, and other shoreline vertebrates and invertebrates. Coastal dunes provide a resilient, living shoreline to buffer coastal infrastructure from coastal storms and sea level rise associated with climate change.

40 Describe any other project characteristics not previously discussed that would assist in evaluating the Project Proposal.

Answer:

End of Project Questions

Certification And Submission Statement

Please read before signing and submitting application.

I certify under penalty of perjury:

- The information entered on behalf of Applicant Organization is true and complete to the best of my knowledge;
- I am an employee of or a consultant for the Applicant Organization authorized to submit the application on behalf of the Applicant Organization; and
- I understand that any false, incomplete or incorrect statements may result in the disqualification of this application.

By signing this application, I waive any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent provided in this RFP.

Submission By: MBStormwater

Submitter Initials: SR

Submission Date: 6/15/2020 12:55:06 PM