



memorandum

date January 9, 2018
to Bonny O'Connor, AICP
cc Tina Wehrmeister; Bob Battalio, PE
from James Jackson, PE
subject Revised Asset Inventory for Pacifica LCP Update

In this memorandum we list the critical natural and built assets that will be included in the sea-level rise vulnerability assessment and valued to inform the Adaptation Strategies evaluated for the Pacifica Local Coastal Plan (LCP) Update. ESA pulled some data from the Coastal Regional Sediment Management Plan (ESA 2016). Asset managers are identified, with help from the City of Pacifica. The County of San Mateo provided a significant amount of data that was collected for the Sea Change (SMC 2017) project, as this project strives to be consistent with County work.

Asset Summary

The City of Pacifica has the following built and natural assets that are currently or may become vulnerable to flooding and erosion due to sea level rise. These assets were processed in GIS along with flooding and erosion hazard layers to assess vulnerability. ESA has included the Access and Recreation category in addition to the County groupings to distinguish these assets in Pacifica. Only Trails, Parks, Fishing pier and Golf course were publicly available in GIS format. Additional public access and recreation assets will be identified with the help of the working groups.

Built Assets

Residential buildings	Fire stations	Roads (local)
Hotels, Offices	Police station	Storm drains
Commercial buildings	Communications towers	Stormwater pump stations
Industrial facilities	Hazardous material sites	Outfalls
City-owned buildings	Health care facilities	Transmission lines
Buildings with affordable rental units	Highway bridges	Underground chemical storage tanks
Schools and Churches	Highways	Wastewater pump stations
Senior centers	Levees and floodwalls	Wastewater treatment plant
Mobile home parks	Natural gas pipelines	Water distribution pipelines
Emergency shelter sites	Shoreline protection devices	
	Closed landfill	

Natural Assets

Beaches	Wetlands	CA red legged frog habitat
Streams	SF garter snake habitat	
Surfgrass habitat	Critical Steelhead Habitat	

Access and Recreation

Vertical access to shore	Golf course	Trails
Lateral access to shore	Surfing areas	Parking, restrooms and other recreational facilities
Bluff top or promenade	Fishing pier	
View points	Parks	

The collected GIS layers for assets in Pacifica are listed in Attachment A: Pacifica Asset Inventory Table.

Critical Asset Managers

ESA and Pacifica planning staff identified the following Agencies as having ownership and/or jurisdiction over natural and built assets within the coastal zone of Pacifica. Main asset categories are listed for each agency, along with source descriptions and known gaps.

City of Pacifica

The following data were obtained from departments at the city of Pacifica:

- Wastewater Treatment Plant, Calera wastewater recycling facility.
- Wastewater conveyance pipes and junctions, pump stations, and outfalls.
- Streets centerlines.
- Stormwater conveyance pipes and junctions, outfalls, streams, pump stations. ESA approximately digitized the Equalization Basin currently under construction in west Linda Mar in absence of data from the City.
- City owned buildings and other landmarks, as well as land use and other specific areas defined in the draft LCP.
- Coastal armoring structures. Existing data from the CRSMP was updated by ESA using a combination of aerial imagery and a field visit on 12/20/2017.

North Coast County Water District

Water distribution lines, associated structures, and cisterns comprise a typical drinking water distribution network. NCCWD is currently in the process of developing a geospatial system for their water infrastructure, so have not provided GIS data at this time. The City and ESA are exploring other approaches to consider this valuable asset.

Communications Companies (AT&T, Comcast)

Communications lines and distribution nodes were obtained from Comcast. AT&T provided electronic maps of their network, but would not share the associated geospatial data.

Pacific Gas & Electric

PG&E operates natural gas and electricity transmission lines and associated facilities in Pacifica. PG&E will not provide GIS data on its assets. ESA obtained available data from CA Energy Commission for electrical transmission lines and natural gas pipelines. The regional infrastructure in these data were found to be outside of the study area and thus not included. The CEC does not maintain local gas and electrical transmission data. The City and ESA are exploring other approaches to include gas and electric transmission in the study.

City of San Francisco

The City of San Francisco owns and manages the Sharp Park Golf Course property. ESA did not receive any responses from SF City staff regarding more detailed data within the golf course. ESA manually added the pump station, pipe and outfall that manages water levels in Laguna Salada to the asset database.

Golden Gate National Recreation Area

The GGNRA manages property and trails at Mori Point and Lands End. GGNRA staff reported no other built assets within their properties.

California State Parks

Pacifica State Beach and trail.

CalTrans

Data was downloaded from the online data portal which includes Hwy 1 and associated bridges, and local bridges over San Pedro Creek. Local road centerlines data were provided from the City.

California Department of Fish and Wildlife

Streams. Data was obtained from the National Wetlands Inventory and County study.

US Fish and Wildlife Service

Critical Steelhead habitat exists in San Pedro Creek. CA red-legged frog habitat exists in Pacifica as well. Data was obtained from the USFWS Environmental Conservation Online System for these habitats. SF garter snake habitat also exists in Pacifica, but geospatial habitat data is still being sought.

Pacifica School District

School properties were obtained from the City and County parcel data.

National Ocean and Atmospheric Association

Data on ocean habitats were obtained from the County study and the National Wetlands Inventory.

Department of Toxic Substances Control

Data was acquired from SMC on cleanup sites, solid waste facilities, underground storage tanks.

Data Organization and Reporting

Consistent with the San Mateo County Sea Change project assets will be grouped according to the following categories:

- Land Use (residential, commercial, etc.)
- Coastal Structures
- Hazardous Materials
- Wastewater
- Communication
- Stormwater
- Transportation
- Recreation
- Ecosystem
- Community
- Emergency Response

Assets will be reported by category as listed above for the vulnerability assessment. Data were reviewed with City asset managers for completeness and accuracy at an asset inventory meeting on 11/28/2017. Surveys have been distributed to asset managers in the City for input on existing exposures and perceived vulnerability with SLR, as well as suggestions for adaptation to future coastal flooding and/or erosion impacts.

References

Environmental Science Associates (ESA), 2016, San Francisco Littoral Cell Coastal Regional Sediment Management Plan, Draft, Prepared for the US Army Corps of Engineers and the Coastal Sediment Management Workgroup.

San Mateo County, 2017. County of San Mateo Sea-level Rise Vulnerability Assessment Draft Report. Accessed online: <http://seachangesmc.com/wp-content/uploads/2015/08/Final-ALL-Compiled-Public-Draft-4-3-17-V2.pdf>

Attachment A: Pacifica Asset Inventory Table

SOURCE	ASSET TYPE	DATA FILE NAME	TYPE	NOTES	REFERENCE
City of Pacifica	Parcels	Parcels	polygon		City of Pacifica, received 2017
City of Pacifica	Landmarks	Landmarks	polygon	Landmarks including: Beach, City Hall, Fire, Golf, Historic, Park, Police, School	City of Pacifica, received 2017
City of Pacifica	Transportation	Streets	polyline	Local Street Centerlines: names, NO WIDTHs	City of Pacifica, received 2017
City of Pacifica	Wastewater	Sewers	polyline	Sewer pipelines. Diameter, Material, Inverts	City of Pacifica, received 2017
City of Pacifica	Wastewater	Structures	point	Sewer Structures: Manholes, other junctions	City of Pacifica, received 2017
City of Pacifica	Wastewater	PS	polygon	Pump Stations: Skyridge, Sharp Park, N Linda Mar, Brighton, Calera Crk, Rockaway	City of Pacifica, received 2017
City of Pacifica	Stormwater	PS	polygon	Pump Stations: Anza, S Linda Mar	City of Pacifica, received 2017
City of Pacifica	Stormwater	Junctions.shp	point	Stormwater Network junctions	City of Pacifica, received 2017
City of Pacifica	Stormwater	Major_Streams.shp	polyline	streams	City of Pacifica, received 2017
City of Pacifica	Stormwater	Other_Structures_Channels_and_Private_Systems.shp	point	junctions around N end of Palmetto Daly City	City of Pacifica, received 2017
City of Pacifica	Stormwater	Outfalls.shp	point		City of Pacifica, received 2017
City of Pacifica	Stormwater	Pipelines.shp	polyline	Pipelines, DIA	City of Pacifica, received 2017
City of Pacifica	Stormwater	Pump_Stations.shp	point	Anza, Linda Mar	City of Pacifica, received 2017
City of Pacifica	Land Use	Existing_Land_Use_Merge.shp	polygon	Existing Land use from General Plan	City of Pacifica, received 2017
City of Pacifica	Land Use	Parks_Conservation.shp	polygon	Parks and conservation lands from General Plan	City of Pacifica, received 2017
City of Pacifica	Land Use	Specific_Sites.shp	polygon	Specific Areas from General Plan	City of Pacifica, received 2017
SMC-HazMat	HazMat	CLEANUP_SITES_minusSOLID_WASTE_FACILITIES	point	8 Toxic Materials Cleanup Sites	California Water Board; USEPA, California Department of Water Resources, Risk Characterization Study
SMC-HazMat	HazMat	UNDERGROUND_STORAGE_TANKS	point	TOSCO FACILITY 5898, PACIFICA CHEVRON, PACIFICA SHELL FOOD MART, PACIFIC BELL, EDDIES UNION 76 SERVICE	California Water Board; USEPA, California Department of Water Resources, Risk Characterization Study
SMC-EmergencyResponse	Emergency Response	FIRE_STATIONS	point	Pacific Manor, Linda Mar	County of San Mateo 2015
SMC-EmergencyResponse	Emergency Response	hzEmergencyCtr	point	Pacifica Disaster Preparedness	California Department of Water Resources, Risk Characterization Study
SMC-EmergencyResponse	Emergency Response	POLICE	point	Pacifica Police Station	County of San Mateo 2015
SMC-EmergencyResponse	Emergency Response	SHELTER_INVENTORY	point	Pacifica Baptist Church, 8 schools (Cabrillo, Ingrid B Lacy, Oceana, Ocean Shore, Ortega, Sunset Ridge, Terra Nova, Vallemar)	County of San Mateo 2015
SMC-EmergencyResponse	Wastewater	WASTEWATER	point	Calera Creek Water Recycling	County of San Mateo 2015
SMC-EmergencyResponse	Wastewater	Wastewater_Pump_Stations_Merged_2_1	point	Montecito Ave, Brighton/Palmetto Ave, Linda Mar	County of San Mateo 2015
SMC-EmergencyResponse	Wastewater	WasteWaterPumpStations	point	San Marlo Way, Viewridge Dr	County of San Mateo 2015
SMC-Communications	Communications	lm_private	point	Comm Towers (9)	Wireless Telecommunications Bureau, Federal Communications Commission 2010
SMC-WaterData	Stormwater	Outfalls_SMC	point	Outfalls into ocean, streams	City/County Association of Governments of San Mateo County 2015
SMC-WaterData	Stormwater	Stormwater_Pump_Stations_Merged_2_1	point	Stormwater pump stations: Linda Mar (different from wastewater?), Anza Dr, Sharp Park GC	City/County Association of Governments of San Mateo County 2015
SMC-WaterData	Stormwater	StormDrains_SMC	polyline	Storm drain pipe network	City/County Association of Governments of San Mateo County 2015
SMC-Transportation	Transportation	hzHighwayBridge	point	7 highway bridges in study area	California Department of Water Resources
SMC-Transportation	Transportation	tl_2015_06081_roads_Dissolve_Local	polyline		California Department of Water Resources
SMC-Transportation	Transportation	tl_2015_06081_roads_Dissolve_Highway	polyline		California Department of Water Resources
SMC-Recreation	Recreation	FishingPiers	point	Pacifica Pier	California Department of Fish and Wildlife, Marine Region GIS Unit 2012
SMC-Recreation	Recreation	PARKS_BEACHES_Points	point	Parks: Palmetto Mini, Portola Mini, Pacifica SB (x3), Oddstad, Fairmont West, Fassler	County of San Mateo Parks Department 2015
SMC-Recreation	Recreation	SMC_2015_ParkBoundaries_NoOverlap_Points	point	Sanchez Adobe	County of San Mateo Parks Department 2015
SMC-Recreation	Recreation	CalCoastalTrail_Trails_minusSMC_2015_TrailsAll_Line	polyline	Trails: Upper Mori & Lishumsha, Hwy1, San Marlo Way, Pacifica RV Park, Esplanade Dr, Lands End, Pacifica Pier, Pedro Pt Headlands	County of San Mateo Parks Department 2015
SMC-Recreation	Recreation	SMC_2015_TrailsAll_Line	polyline	10 trails (some may be redundant to above)	County of San Mateo Parks Department 2015
SMC-NaturalAssets	Recreation	CalCoastalTrail_Beaches_minusLANDMARKS_BEACH_Lines	polyline	Beach Trails: Mussel Rock, Esplanade, Rockaway, Pacifica State Bch	SMC Parks Dept, CA Dept Parks Rec, CA Coastal Comm. 2012-2015
SMC-NaturalAssets	Ecology	HAB_CA_Surfgrass_Hybrid	polyline	Surfgrass habitat	SMC Parks Dept, CA Dept Parks Rec, CA Coastal Comm. 2012-2015
SMC-NaturalAssets	Ecology	LANDMARKS_BEACH_Lines	polyline	Beaches: San Pedro, Sharp Park, Pacifica State	San Mateo County Parks Department 2015
SMC-NaturalAssets	Ecology	Streams	polyline	Streams (8)	County of San Mateo 2015
SMC-NaturalAssets	Ecology	HAB_CA_Wetlands	polygon	Wetlands	California Department of Fish and Wildlife 2006
SMC-NaturalAssets	Ecology	LAKES_minusWetlandsMarshStream	polygon	Laguna Salalda	California Department of Fish and Wildlife 2006

Attachment A: Pacifica Asset Inventory Table

SOURCE	ASSET TYPE	DATA FILE NAME	TYPE	NOTES	REFERENCE
SMC-Community	Housing	AFFORDABLE_RENTALS	point	Affordable Housing: Oceana Terrace, Oceanview, Pacific Pines Apts	County of San Mateo Department of Housing 2015
SMC-Community	Healthcare	CA_Healthcare_Facility_Clippped_Risk3	point	Pacifica Nursing & Rehab Center, Linda Mar Care Center	California Office of Statewide Health Planning and
SMC-Community	Housing	Mobile_Home_Parks	point	Pacific Skies Estates	County of San Mateo Office of Sustainability 2015
SMC-Community	Schools	SCHOOLS	point	8 Schools	County of San Mateo Office of Education 2015
SMC-Community	Care	SENIOR_CENTERS	point	Pacifica Senior Services	County of San Mateo Health System 2015
CalTrans	Transportation	loc_bridges2015	point	Bridges: San Pedro Crk (San Pedro Ave, Peralta Rd, Oddstead Blvd)	CalTrans GIS 2015
CalTrans	Transportation	St_Bridge2015	point	Bridges along/over State Rte 1	CalTrans GIS 2015
CalTrans	Transportation	NHS_Map21	polyline	Hwy 1	CalTrans GIS 2013
RSM (ESA, J Dare, CCC)	Coastal Structures	coastal_armoring_polys.shp	polyline	Coastal Armoring from RSM work	CA Coastal Commission 2006, SF CRSMP 2016
RSM (ESA, J Dare, CCC)	Coastal Structures	coastal_armoring_plines.shp	polyline	Coastal Armoring from RSM work	CA Coastal Commission 2006, SF CRSMP 2016
RSM	Recreation	CoastalTrail_PaltoMoriPt	polyline	Trails lines, from RSM work, leverage with SMC trails	SF CRSMP 2016
RSM	Recreation	CoastalTrail_ReintoPSB	polyline	Trails lines, from RSM work, leverage with SMC trails	SF CRSMP 2016
RSM	Recreation	CoastalTrails_GGNPC_2012	polyline	Trails lines, from RSM work, leverage with SMC trails	SF CRSMP 2016
SMC data portal	Parcels	SAN_MATEO_COUNTY_ACTIVE_PARCELS	polyline	Parcel Data from County Website, with assessed values	County of San Mateo 2015
CA Energy Commission	Energy	CATransmissionLines	polyline	Regional transmission lines. *Data not within study area, not considered*	CA Energy Commission 2017
CA Energy Commission	Energy	NG_Pipelines	polyline	Regional NG pipelines. *Data not within study area, not considered*	CA Energy Commission 2017
USFWS	Ecology	CA_Wetlands_North_CASPIII	polyline	National Wetlands Inventory - California - USFWS, higher resolution and greater	National Wetlands Inventory 2015
USFWS	Ecology	CriticalHabitat	polyline	red legged frog habitat	USFWS ECOS 2017
USFWS	Ecology	CriticalHabitat	polyline	streams, steelhead habitat	USFWS ECOS 2017
Comcast	Communications	Comcast_Underground_Conduit	polyline	service conduit	Comcast 2017