



AGENDA NO: II and III

MEETING DATE: May 25, 2022

**STAFF PRESENTATION RECEIVED BY
THE CITY COUNCIL FOR PUBLIC
REVIEW PRIOR TO THE MEETING**

FY2022-23 Draft Proposed Capital Budget and Harbor Department Budget Study Session

Morro Bay City Council

May 25, 2022





Presentation Outline

Capital Project Overview

Streets Overview

OneWater Plan and Projects

Water Reclamation Facility Program (Carollo)

WRF Quarterly Report

Budget Request Discussion

Capital Funding

Harbor Department Financial Picture Overview

Capital Projects Overview





Capital Project Budget Overview

Proposed FY 2022-23 Capital Project Budget Overview

- \$18.7 Million - robust investment in City Infrastructure
- City Streets' Safety and Improvements
- ADA and Miscellaneous Projects
- Assessment of Capital Needs
- Vehicles/Equipment
- OneWater projects and WRF Program
- Harbor



Capital Project Budget Overview

City Streets' Safety and Improvements

- \$1.7 Million – Annual Pavement Management Program
- \$600k – SR 1/SR 41/Main St. Intersection Improvements
- \$125k – Speed Survey and Local Roadway Safety Plan

ADA and Miscellaneous Projects

- \$300k – ADA: Improvements at Quintana Rd./Main St. and Lila Keiser Park
- \$159k – License Plate Reader System
- \$40k – EV Charging Stations



Capital Project Budget Overview

Assessment of Capital Needs

- \$400k – Citywide Capital and Facilities Planning
- \$60k – OneWater Plan Update

Vehicle/Equipment Replacement

- \$209k – Vehicle and Equipment Replacement: Water Division
- \$174k – Vehicle and Equipment Replacement: Sewer Division
- \$110k – Morro Bay Transit Vehicle
- + 3 Police and 1 Maintenance vehicle budgeted in non-capital funds (ARPA, COPS, Vehicle Replacement)



Capital Project Budget Overview

OneWater Projects

- \$1.2 Million – Beachcomber Drive Sewer Main Replacement
- \$400k – Lift Station 1 Force Main Replacement
- \$203k – Emergency Storm Drain Repairs: Juniper/Elena and Sequoia Ct.
- \$135k – WWTP Decommissioning
- \$125k – Water Tank Rehabilitation
- \$80k – Reverse Osmosis Facility Upgrades: Preliminary Plan

Water Reclamation Facility Program

- \$12.4 Million – WRF Facility, Conveyance, and Recycled Water Projects



Capital Project Budget Overview

Harbor

- \$210k – Boat Launch Ramp & Float Replacement Planning



Capital Projects Implementation

Capital Projects - Stages

- Long range planning
- Project approval and environmental determination (PAED)
- Design: Plans, Specifications, and Estimates (PS&E)
- Construction/Inspection

Implementation Capacity - Engineering Division

- City Engineer
- Associate Engineer
- Public Works Inspector (in training)
- Engineering Tech (in training)
- Consultants

Pavement Management Overview

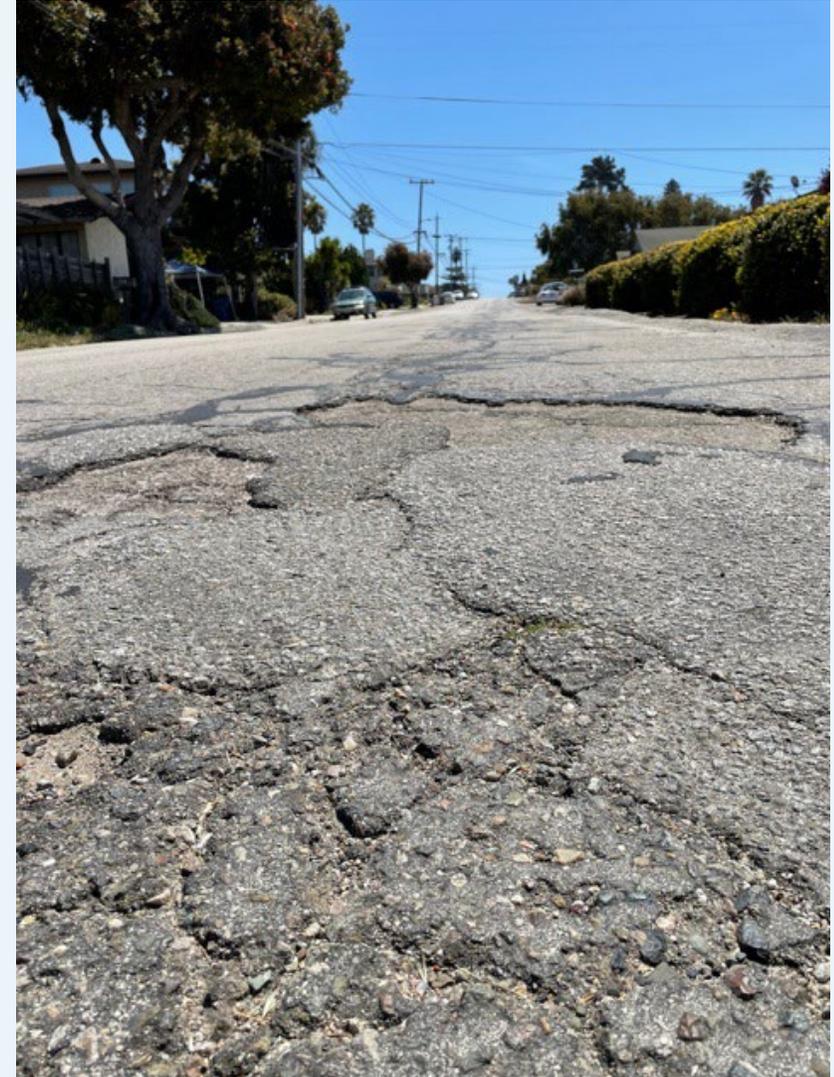




Pavement Management Overview

Challenges

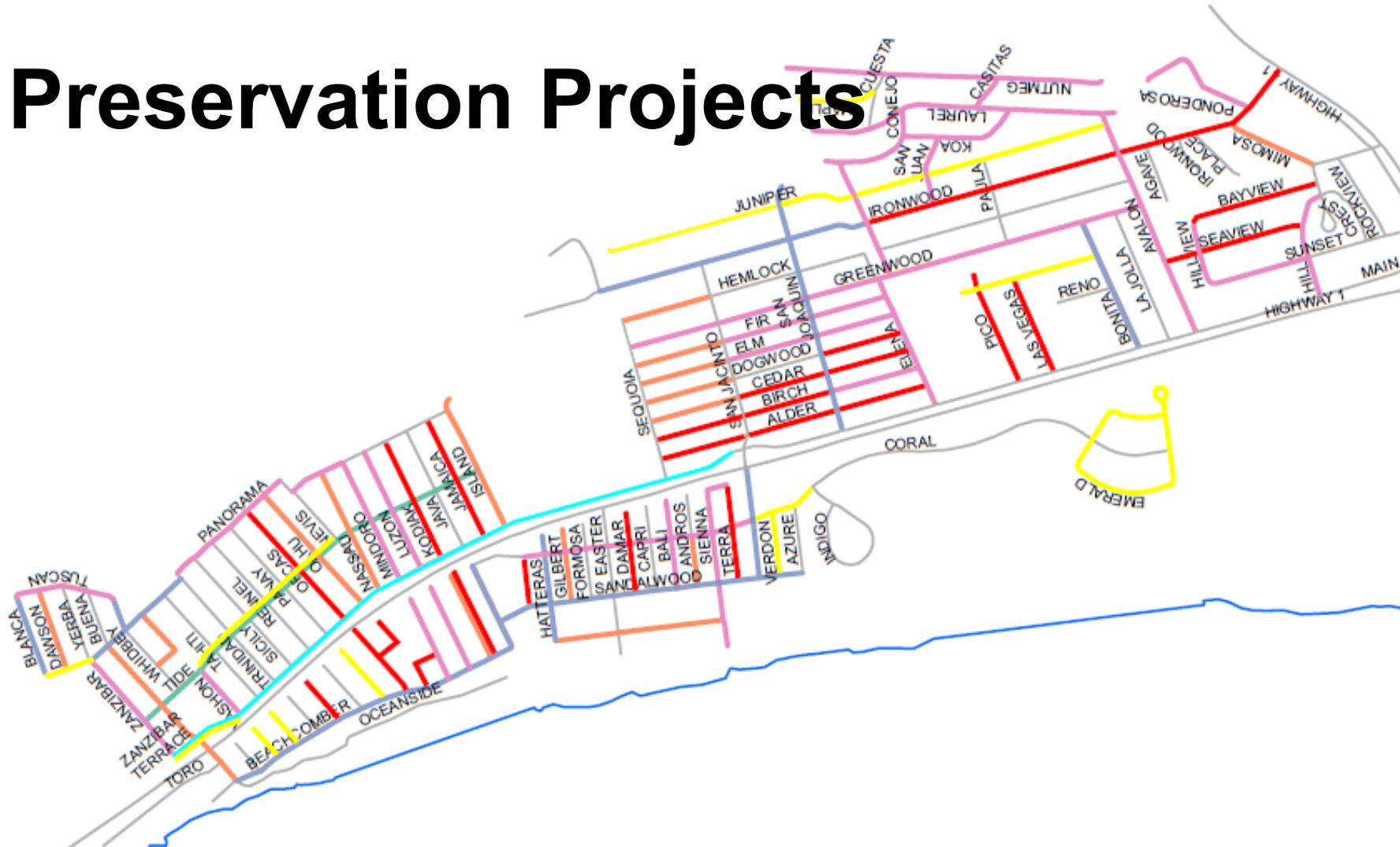
- Structurally inadequate roads
 - North Morro Bay streets lack subgrade and foundation
 - Difficult to maintain
 - Street rebuilding is cost prohibitive
- Streets predate storm drain system
 - Road surface serves as conduit
 - Premature degradation
- Improvement requires sustained investment





Pavement Management Overview

Preservation Projects



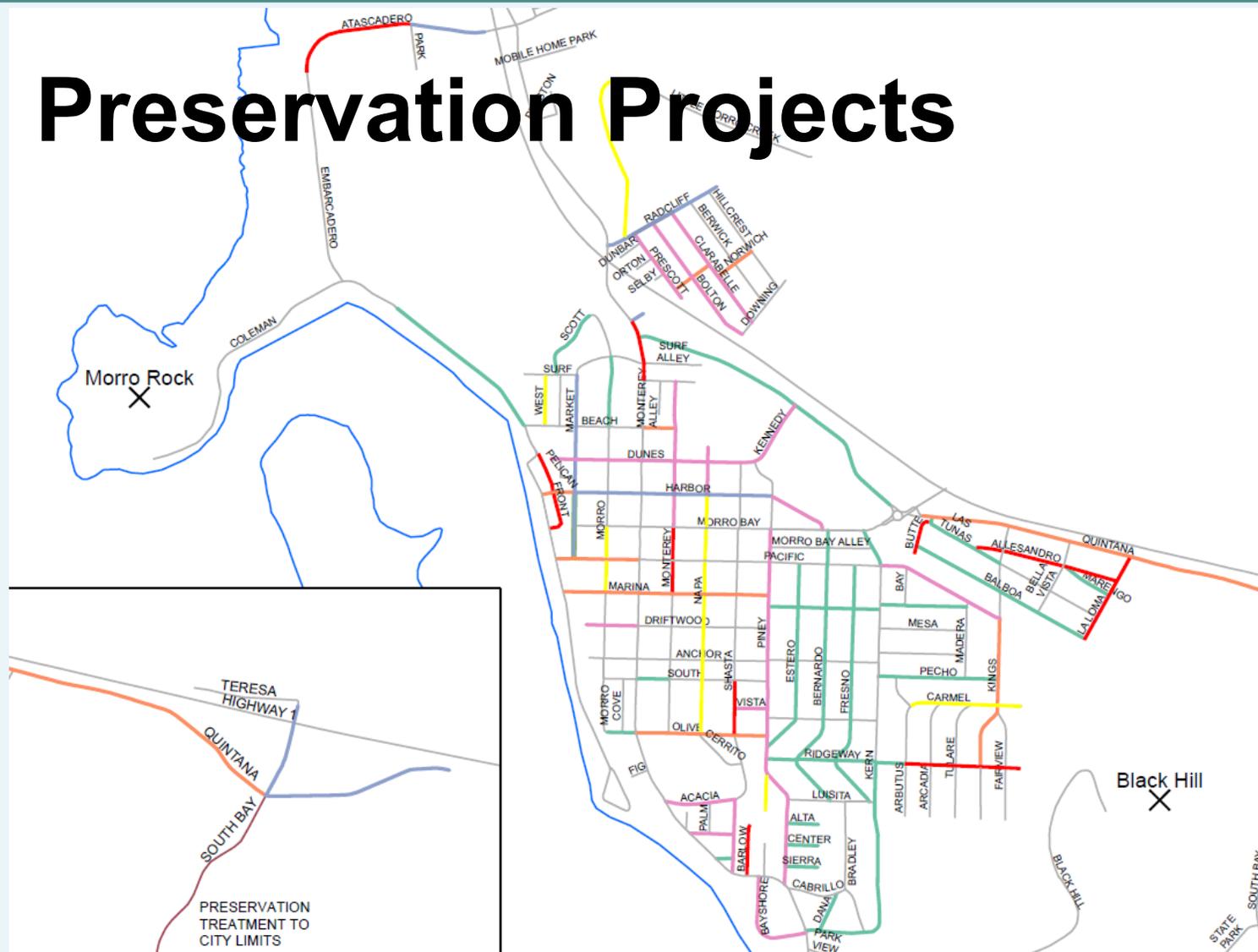
Project Year

- 2011
- 2012
- 2013
- 2015
- 2016-17
- 2017-18
- 2018-19



Pavement Management Overview

Preservation Projects



Project Year

- 2011
- 2012
- 2013
- 2015
- 2016-17
- 2017-18
- 2018-19



Pavement Management Overview

Increased Investment in Streets

- Annual Pavement Management Program
- 2021-22: \$1.1 Million (in design)
- 2022-23: \$1.7 Million
- Largely supported by Measure Q & E

OneWater Plan and Projects





OneWater Plan Overview

Overview

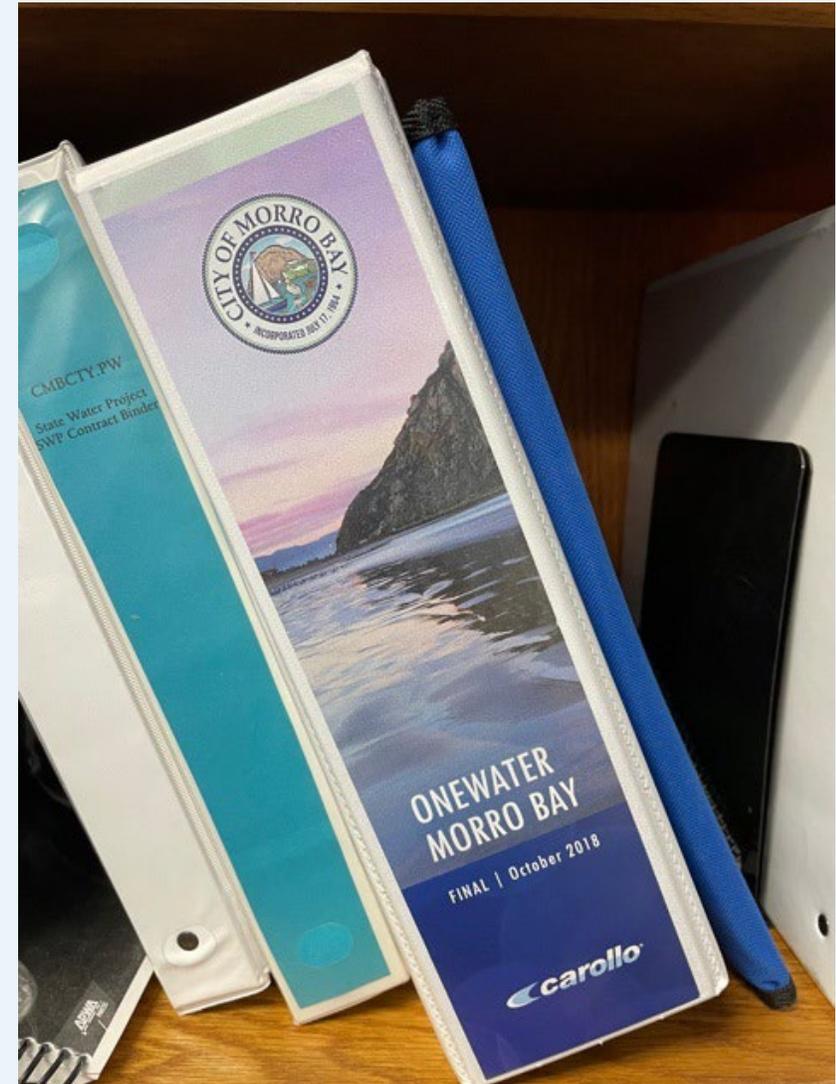
- Adopted by City Council on November 13, 2018
- Resource document to identify City capital projects related to water, wastewater, and stormwater for next 20 years
- Does not necessarily add capacity to systems, many projects are maintenance
- Based on extensive flow modeling
- Based on full build out of City in 2040 as described in Plan Morro Bay
- City submits annual reports to State, who regulates water, wastewater, stormwater plans
 - Allows for grant and loan funding eligibility



OneWater Plan Overview

Background

- Prior plans:
- Water Master Plan: 1997
- Wastewater Master Plan: 2006
- Storm Drainage Master Plan: 1987
- OneWater consolidated water, wastewater, and stormwater plans
- Normal cycle is 5-7 years, should be updated in next 2-4 years
- Transition away from “if it ain’t broke, don’t fix it” mindset





OneWater Project Status

- OneWater Plan
 - Phase 1: Four projects in progress
 - Tank Rehabilitation
 - Nutmeg Pressure Zone
 - Beachcomber Sewer Improvements
 - Atascadero/Main Sewer Improvements
 - Stormwater
 - Elena/Juniper Emergency Storm Drain Repairs
 - Sequoia Emergency Storm Drain Repairs



Water Tank Rehabilitation

Project Scope

- Complete rehabilitation of four Blanca Tanks and two Kings Tanks
- Work will include replacement of internal and external coatings
 - Two oldest Blanca Tanks to be completely disassembled and refurbished at factory or replaced
- Replacement of access ladders, handrails, and railings
- Installation of OSHA fall protection equipment

Background

- Blanca Tanks capacity: 580,000 gallons
- Kings Tanks capacity: 2,160,000 gallons



Water Tank Rehabilitation

Background

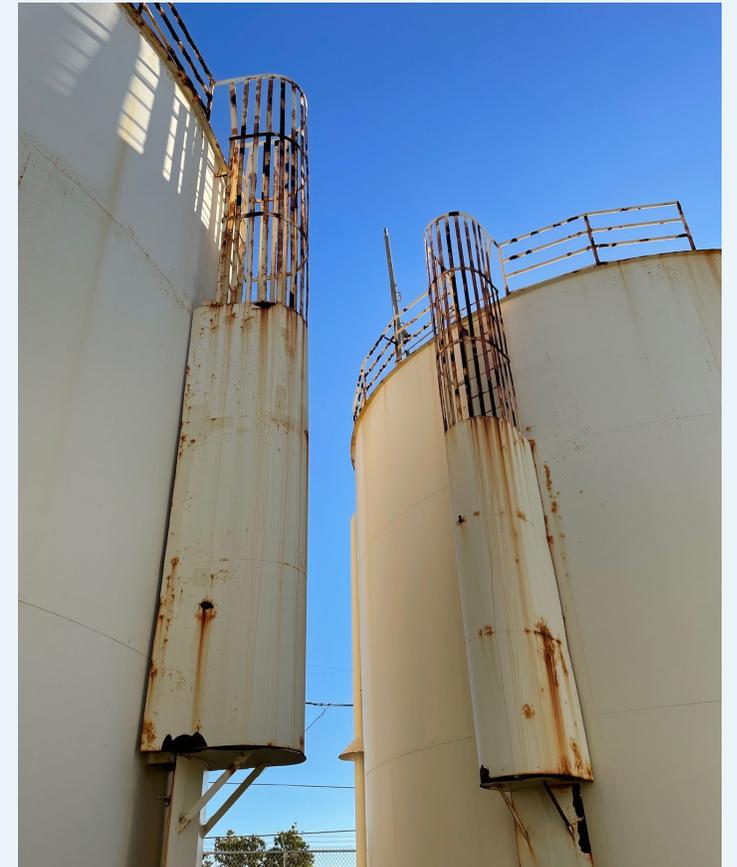
- Tank structures deteriorated; ocean environment, deferred maintenance
- Tanks not in compliance with State Division of Drinking Water

Project Status

- Under Construction
- 1 year to complete; scope changes

Project Cost

- \$5.4 million, fully funded by Water Fund
- Staff evaluating cost savings





Water Tank Rehabilitation





Nutmeg Pressure Zone

Project Scope

- Combination of several OneWater projects
- Replacement/upgrade of Nutmeg Tank to mitigate capacity deficiency maximum day demand conditions and to support fire flow
- Elimination of Vashon Booster Station
- Elimination of Elena Tanks
- Pipeline upgrades to accommodate peak hour demands
- Construction of pipelines to support fire flow

Background

- Nutmeg Tank capacity: 142,000 gallons
- Elena Tanks capacity: 100,000 gallons



Nutmeg Pressure Zone

Background

- New Nutmeg Tank capacity: 1,000,000+ gallons
- Must comply with regulations on how many GPM must be available while retaining PSI

Project Status

- 30% Design
- Three years to completion

Project Cost

- \$19 million, fully funded by Water Fund





Nutmeg Pressure Zone





Beachcomber Sewer

Project Scope

- Rehabilitation/replacement/upgrade of over 1,500 feet of sewer lines along Beachcomber Drive to address inflow and infiltration
- Replacement of 31 caps and manholes to address inflow and infiltration

Background

- Inflow and infiltration introduces clean water into the wastewater system, which creates capacity issues



Beachcomber Sewer

Project Status

- 100% Design Complete
- Two years to completion, but will include additional phase for backyard work

Project Cost

- \$1.9 million
- Fully funded by Sewer Fund





Main Street/Atascadero Road Sewer

Project Scope

- Replacement/upgrade of over 5,500 feet of gravity main sewer lines on Atascadero Road, Main Street, and San Joaquin Street
- Mitigates risk of sanitary sewer overflows under peak wastewater flow conditions

Background

- Will be serviced by the new pump station on Atascadero Road
- Originally one project, now segmented to allow for sequential construction with WRF conveyance line on Atascadero Road



Main Street/Atascadero Road Sewer

Project Status

- 60% Design Complete – Staff reviewing completion timeline

Project Cost

- \$9 million
- Fully funded by Sewer Fund





Main Street/Atascadero Road Sewer





Juniper/Elena Storm Drain Repairs

Background

- Failed CMP caused underground void

Project Status

- 100% Design Complete
- Staff preparing bid

Project Cost

- \$325,000
- Funded by General Fund and Sewer Fund





Sequoia Drive Storm Drain Repairs

Background

- Failed CMP caused underground void and sink hole to form
- Temporary patch in place

Project Status

- Project Approval
- 12-18 Months for Project Completion

Project Cost

- \$120,000, Funded by General Fund





Sequoia Drive Storm Drain Repairs





OneWater - Future Challenges

Water

- Daily use: no major deficiencies
- ~70% pipes are aging (over 60 years old) A/C pipe
- Fire flow issues
- “Shallow” water supply

Wastewater

- Daily use: no major deficiencies
- Inflow and infiltration



OneWater - Future Challenges

Stormwater

- Corrugated metal piping
- Poor storm drain infrastructure
- No dedicated funding source

Notes

- Updated OneWater plan will scope Phase 2
- Updated scope to include prioritized LS-1 force main replacement

Water Reclamation Facility Program





WRF Overview

WRF

- New plant expected be brought online November 2022
 - Brings City into compliance for wastewater discharge
- Delays, driven by regulators and other challenges
- New Program EAC: \$159.8 million
 - Increase of \$15.2 million from \$144.6 million
 - Compliance requirements from regulators
 - Replenishment of contingency budget
 - Consolidated accounting methodology
 - Increased project management and City costs
 - 24.5% increase in California Construction Cost Index



WRF Overview

- Recycled Water
 - City awarded pilot injection well contract
 - City to study hydrogeology of basin to optimize placement of other wells
 - Initial modeling estimated 80% of City water supply could be extracted from basin with recycled water

The image features a monochromatic blue background with a textured, wavy pattern. In the upper left, a silhouette of a rocky cliff face is visible. Centered in the upper half is the main title text in a large, white, sans-serif font.

Morro Bay Water Reclamation Facility Project (WRF)

MORRO BAY
OUR WATER
RELIABLE. CLEAN. FOR LIFE.

Presentation Overview

- WRF Purpose
- Construction Update
- Quarterly Report Update
- WRF Program Budget Development

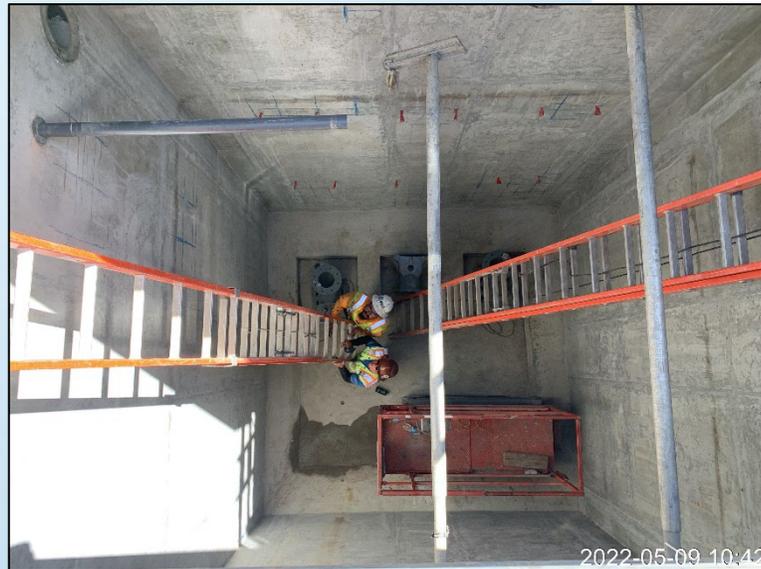


Conveyance Facilities Update

Pump Stations A & B



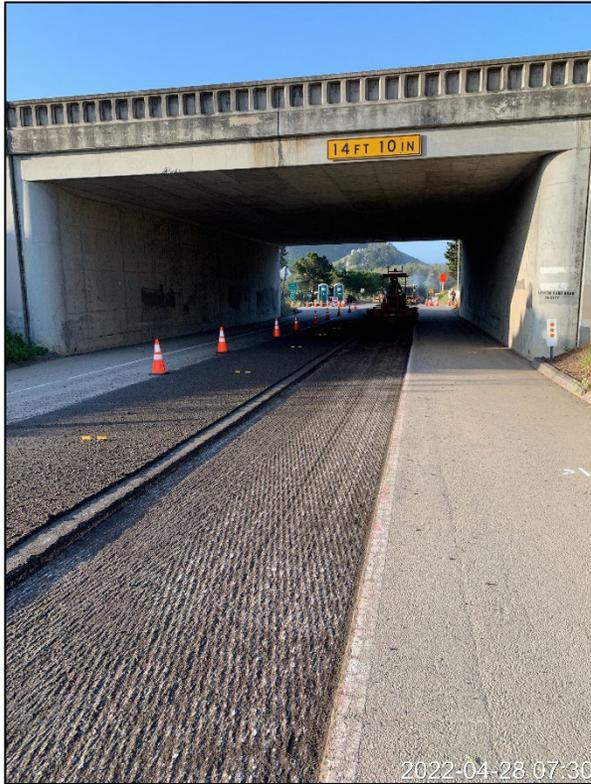
Pump Station A



Pump Station B

Conveyance Facilities Update

South Bay Boulevard is Open!



*Trenching Towards Highway 1 and
WRF Site*

Conveyance Facilities Update

Bike Path and Utility Bridge



Joint Trench Along the Bike Path



Utility Bridge North Abutment Construction Progress

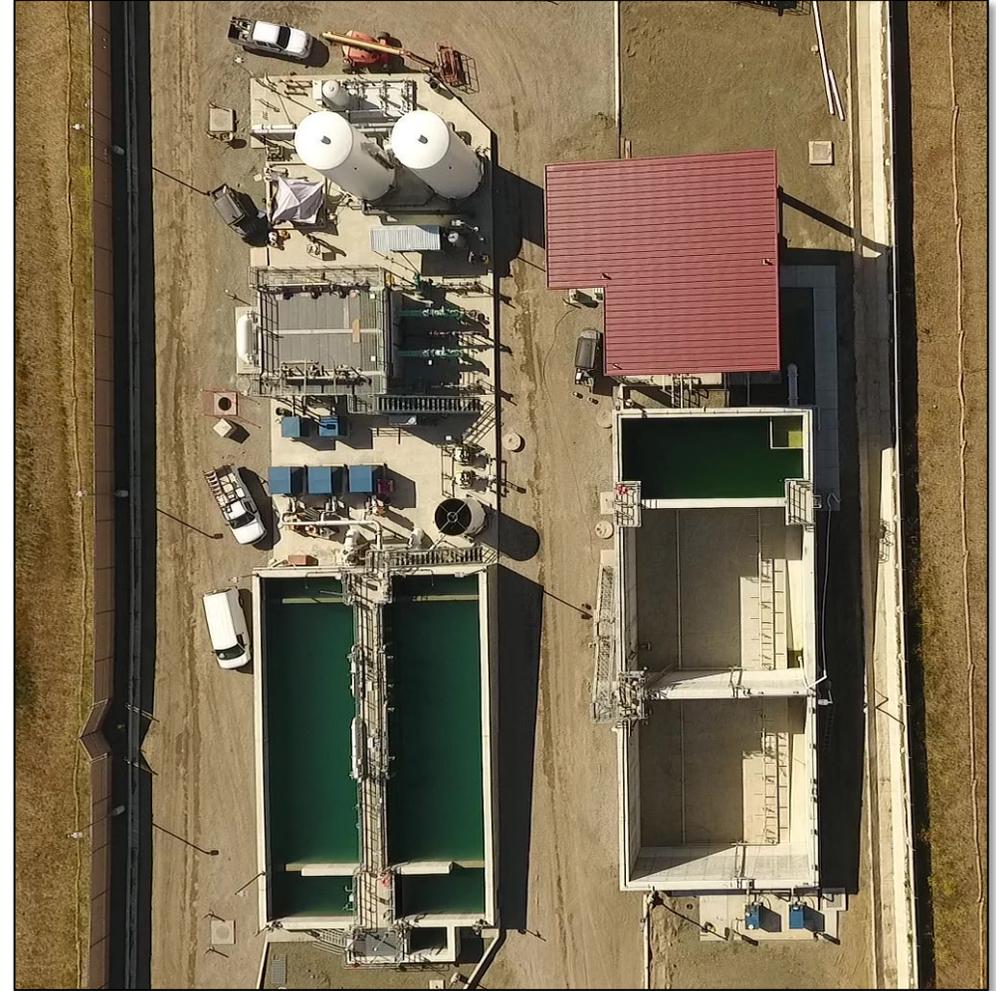
Upcoming Conveyance Facilities Change Orders

- Anvil Contract Amendment No. 4 expected to be brought to City Council on June 14th.
 - Amendment No. 4 will be a credit to the City since the SLO County APCD additional equipment requirements (PCO no. 28 included in Amendment No. 3) at PS A and PS B was not needed.
- Unexpected bedrock conditions encountered at South Bay Boulevard and Teresa Road resulted in very slow installation of the joint trench.

WRF Construction Update



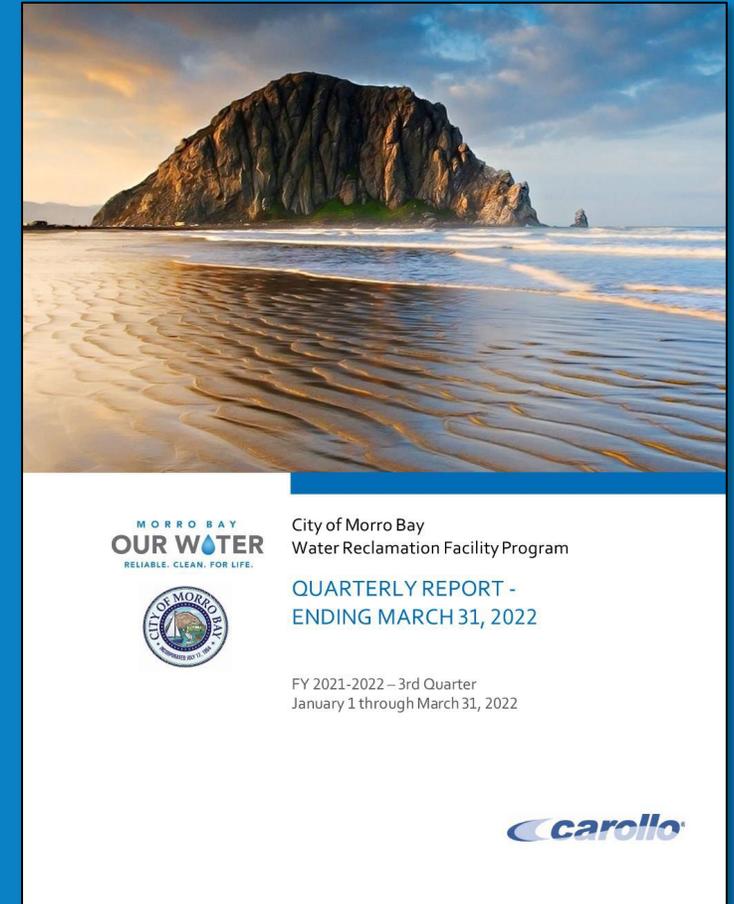
WRF Site Progress



WRF MBR Basin

PWAB Quarterly Report Update

- Simplified WRF Program Quarterly Report format
 - Reduced overall page count
 - Eliminated redundant sections
 - Added appendices for detailed information
 - Updated Program S-Curve to reflect schedule updates
- Revised presentation of Program schedule
 - Identifies specific milestones
 - Identifies critical path activities

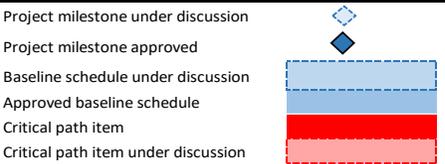
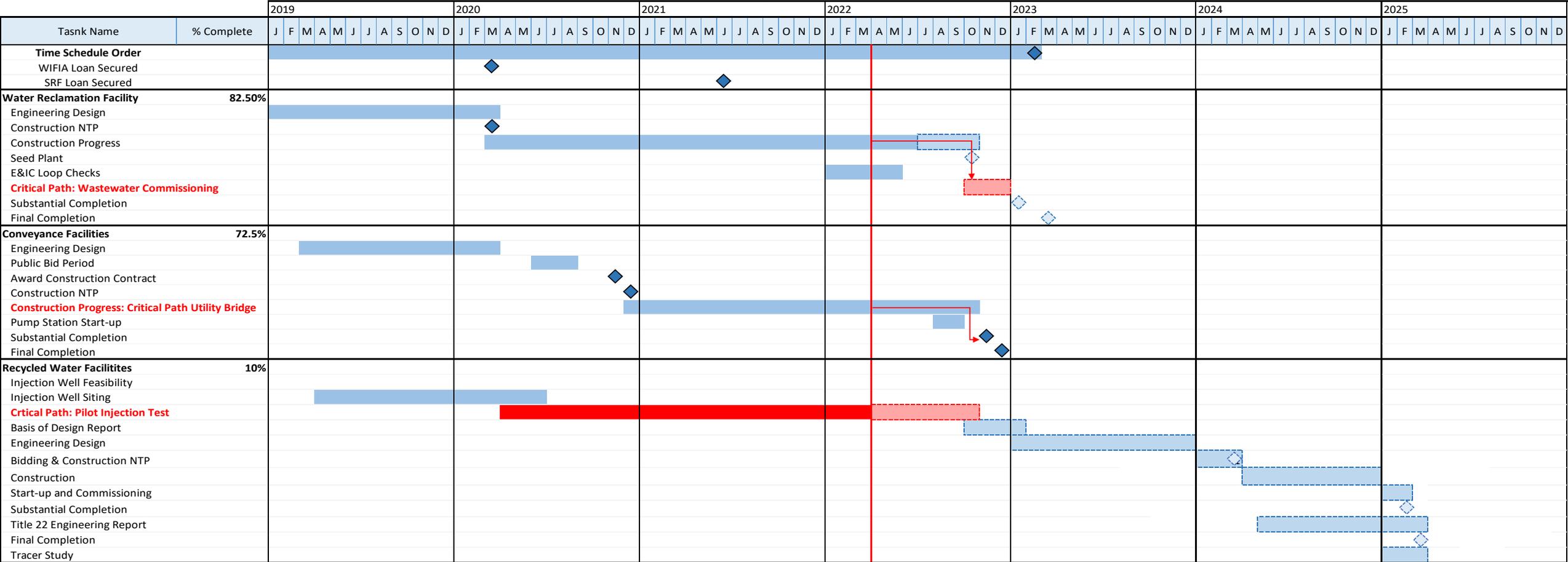


WRF Program Schedule Overview

(As presented in latest Quarterly Report)



Morro Bay WRF Project
 Program Wide Schedule Summary
 Updated: FY 2021/2022 Q3



WRF Budget Development

- Increased the FBV budget to cover the entire GMP
- Replenished the contingency budget to cover PCOs and future changes
- Added \$1.5M for the Conveyance delay claim
- Added budget for outfall inspection and cleaning

Conveyance Budget Development

- Replenished contingency budget to cover PCOs and future change
 - Construction change order contingency budget set to be 5% of remaining
- Added \$400K for existing RO facility modifications
- Increased cultural monitoring budget by \$400K
- Increased Waterworks' ESDC budget to cover schedule extension

Recycled Water Facilities Budget Development

- Increased budget for Pilot injection well construction to incorporate a more detailed planning level construction cost estimate.
- Included a peer review of the hydrogeological modeling and analyses that have been performed to date.
- Added design and ESDC for the full-scale injection system construction.
- Additional hydrogeological services to complete permitting and review the design of the full-scale injection system
- Included archaeological permitting with SHPO and EPA as well as investigation and monitoring services during construction.
- Added biological services and consultation during planning and design phases as well as construction monitoring.

Program Management Budget Development

- Added budget to complete both the WRF and Conveyance Facilities construction and continue the predesign and permitting coordination of the recycled water facilities.
- Analyzing and managing the program budget and funding reimbursements
- Tracking grant funding opportunities and preparing grant applications
- Preparing staff reports and presenting WRF items to Council
- Added additional budget to continue conducting public outreach efforts associated with the Program
- Preparing reports for funding and regulatory agencies, and Morro Bay committees and City Council

WRF Program Budget Update & EAC

Project Component	FY 21/22 Q2 2022 Budget	New Proposed Budget	Difference
Water Reclamation Facility	\$75,002,854	\$79,643,216	\$4,640,362
Conveyance Facilities	\$37,141,293	\$39,774,724	\$2,633,431
Recycled Water	\$7,168,000	\$9,424,174	\$2,256,174
Program Management	\$12,200,000	\$16,335,288	\$4,135,288
City Costs	\$13,162,730	\$14,662,946	\$1,500,216
Total	\$144,674,877	\$159,840,348	+\$15,165,471



FY2022-23 WRF Budget Request

FY 2022-23 Request - \$12.3 Million

- \$3.4 Million – Complete WRF Construction and Replenish Contingency
- \$520k – Treated Wastewater Outfall Inspection and Cleaning
- \$1.3 Million – Replenish Conveyance Contingency
- \$705k – Additional Engineering and Cultural Monitoring Services
- \$400k – Regulatory-Driven Reverse Osmosis Facility Modifications
- \$374k – Pilot Injection Well Construction
- \$600k – Continuing Hydrogeological Modeling Services and Peer Review
- \$710k – Injection Pipeline and Well Design and Permitting Services
- \$4.4 Million – Program Management and Internal City Costs

Questions for Carollo?



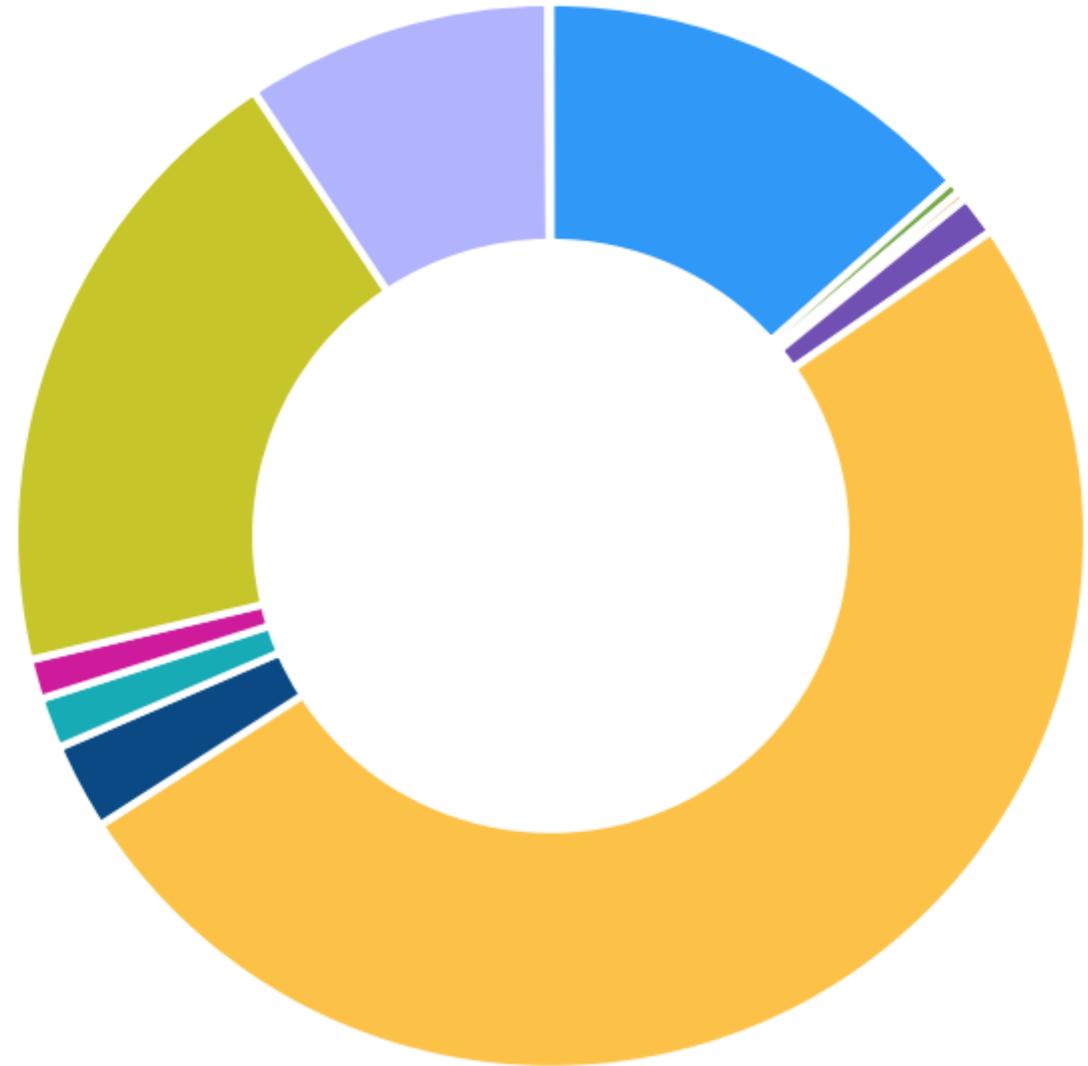
Capital Funding





FY 2022-23 CIP Funding by Source

● Measure Q & E (13%)	\$2,514,000.00
● Bike Path Fund (0%)	\$72,423.00
● LTF Roads Fund (0%)	\$52,142.00
● RMRA Funding (1%)	\$233,281.00
● Sewer Fund (51%)	\$9,459,805.00
● General Fund (3%)	\$490,000.00
● Harbor Fund (2%)	\$290,000.00
● Grant (1%)	\$227,300.00
● Water Fund (19%)	\$3,628,631.00
● WIFIA/SRF Loans (9%)	\$1,734,348.00
● Transit Fund (0%)	\$13,200.00
TOTAL	\$18,715,130.00





Water/Sewer Fund Cashflow

- Water/Sewer Cashflow
 - WRF - \$21 million not financed
 - Increased costs
 - Disbursements slow, cost of cheap financing
 - OneWater
 - Escalating costs
 - Plan written in 2018
 - Consistent double digit increases in CCCI
 - As projects progress in design, obstacles discovered



Sewer/Water Fund Forecasts

Sewer and Water Fund Forecasts (includes capital costs)

	FY23	FY24	FY25	FY26	FY27
Sewer Ending Fund Balance	\$16.2 M	\$15.3 M	\$6.2 M	\$5.3 M	\$8.6 M
Water Ending Fund Balance	\$15.2 M	\$13.6 M	\$4.2 M	-\$4.1 M	-\$4.0 M



Cashflow Strategies

Strategies

- Grants

Grant	Funding Agency	Grant Scope	Grant Request	Status
SRF Loan Forgiveness	CA WRCB	WRF Program	\$5,000,000	Approved
Recycled Water Planning	CA WRCB	Recycled Water Planning	\$75,000	Approved
Urban and Multibenefit Drought Relief	CA WRCB	Recycled Water	\$10,750,000	Submitted
Urban and Multibenefit Drought Relief	CA WRCB	Well Field Rehab.	\$10,364,000	Submitted
Title XVI WIIN	US Bureau of Rec.	IPR	\$9,310,095	Submitted
IRWM Implementation	CA DWR	IPR	\$2,612,915	Submitted
Drought Resiliency Grant	US Bureau of Rec.	Well Field Rehab.	TBD	Under Development



Cashflow Strategies

Strategies

- Grants
- Additional SRF Financing
- Finance with cash, slow projects as needed



Water and Sewer Revenue

Revenues from Prop 218 Increases

- Rates increases generate revenue to support
 - WRF
 - OneWater projects
 - Utilities operations and maintenance
- Revenues from Sewer and Water rates go directly into Sewer and Water operating and reserve funds

Questions?





HD FY22-23 Budget Overview

HARBOR OPERATING FUND - Background

- State-Legislated Morro Bay Tidelands Trust
- Enterprise Fund zone that includes waterfront, bay and beaches
- Managed by the Harbor Department
 - Public Safety/Public Access
 - Lease/Property Management
 - Capital Improvement, Maintenance and Repair
- What's generated in the Trust stays in the Trust for Trust purposes



HD FY22-23 Budget Overview

HARBOR OPERATING FUND – Background con't

- Pre-2008, revenues comfortably exceeded expenses
- Post-2008, the equation flipped
 - Great Recession
 - Cessation of power plant outfall lease revenue
 - Growing State PERS unfunded pension liabilities
 - Greatly increasing operational costs
- Harbor Fund challenged to meet operational *and* capital needs when infrastructure really needs help



HD FY22-23 Budget Overview

HARBOR OPERATING FUND – Discussion

- Revenues - \$2.36M
 - 78% from 35 “master” leases
 - 18% from boating-related fees and services
 - 4% from miscellaneous sources
- Seeing record lease revenues, but waterfront is largely at its carrying capacity without new growth
- Sales tax from Measures Q/E allocated in separate fund for certain Harbor-related expenses



HD FY22-23 Budget Overview

HARBOR OPERATING FUND – Discussion con't

- Expenses - \$2.27M
 - Personnel = 55%
 - 6 full-time personnel where there used to be 8
 - TCFOE organizational assessment underway
 - Supply and Service costs both growing substantially
 - Inflation
 - Increasing demand on services, utilities, maintenance, repair and upkeep
- Operating Fund is balanced, but goes negative when capital need is added



HD FY22-23 Budget Overview

HARBOR OPERATING FUND – Discussion con't

- Capital need ~\$800K per year estimated over the next ten years
 - ½ of Beach Street Slips replacement funded this FY at \$600K
 - North T-Pier needs \$3.8M work; currently in a Congressional request
 - Proposing \$210K for boat launch facility ramp and boarding float planning and permitting to seek grant funding for the work (Measures Q/E)
 - That's just a start



HD FY22-23 Budget Overview

HARBOR OPERATING FUND – Conclusion

- Record lease revenues, challenges remain:
 - Organizational assessment and how the Harbor Department is structured and staffed into the future, including service levels
 - Collaboration with Public Works on the department's capital program
 - Pension liabilities
- Grants and other funding programs will help, but not the answer
- Other possible revenue sources:
 - Paid parking
 - Measures Q/E
 - Community tax initiative

