

Board of Directors 10-Year Financial Plan Workshop 1B

January 13, 2021



10-Year Financial Plan

Our goal is to develop a 10-year Financial Plan that provides a strategic and thoughtful approach to future investments in our water system, using strategic communications and community engagement to inform the process.



Financial Plan Development

- Focuses on capital and operational needs and opportunities
- Developed in concert with the Board and with community engagement
- Examine a range of levels of investment in capital and operating elements
- Scenarios will be developed for major asset classes and operating programs
- Scenarios will be evaluated against projected resource availability
- Provide a thoughtful, prioritized approach

Engaging the Community

Communication and Engagement Goals

- Provide opportunities for engagement that are valuable and informative to participants and the district
- Help inform and guide the process
- Build trust and credibility with customers and stakeholders
- Demonstrate Marin Water's commitment to stakeholder engagement

Communications and Outreach

Communications

- Customer newsletter
- Bill inserts
- Marinwater.org
- Social media platforms
- Media relations
- Community partners' channels
- Video

Outreach

- Community partners
- Board workshops
- Virtual Open House
- Social media platforms
- Inclusion in other engagement efforts
- Email and phone calls

Board Workshop Progression



Board Workshop 1A



Workshop #1A: Dec. 17, 2020 Building Blocks of the Financial Plan

- Introduction of asset classes, operating programs and levels of investment
- Focus on:
 - Storage Tanks
 - Water Supply
 - Treatment Plants

Board Workshop 1A

Key Takeaways from this Workshop:

- Want more discussion on operational investments such as conservation programming in addition to capital needs
- Level of investment and criteria for rating is key to providing context, as is the line between maintenance and getting to industry standard
- Specific project inquiries and requests for follow-up were made including use of solar on storage tanks, and updates on groundwater and LiDAR studies, etc.
- Think in quantum leaps, (i.e. all the tanks instead of a few here and there).

Board Workshop 1B

Workshop #1B: Jan. 13, 2021 Building Blocks of the Financial Plan

- Discussion on asset classes, operating programs and levels of investment continues
- Focus on:
 Pipelines
 - Pump Stations
 - Watershed
 - Facilities & Capital Equipment

Board Workshop #2

Scenario Development

- Based on information and feedback from previous workshops, we will provide a range of initial scenarios for capital and operating investments.
- Discuss levels of investment and resulting resource requirements
- Receive feedback on preliminary scenarios and long-term investment strategies

Board Workshop #3

Building Out Financial Scenarios

- Based on Board feedback, scenarios are refreshed, refined, and new scenarios are potentially added to the mix
- Financial model is updated to reflect input from the previous workshop

Board Workshop #4

Charting the Roadmap

- Finalize any outstanding issues from previous workshops
- Provide the overall picture for Financial Plan, including the district's current state and its vision for future investments
- Present the 10-year Financial Plan and a roadmap for successful implementation

Workshop #1B: Building Blocks of the Financial Plan 10-Year Capital Plan FYE 2024 - 2033

Historical Capital Investments

10-Year Total = \$198 Million



10-Year Capital Plan Investment Levels Review (FYE 2024 – 2033)

Group	Description
Group A	 Group B, plus increased investment, for <u>example</u>: Address taste & odor issues Guideline: 90 – 100% of industry standards in various asset classes
Group B	 Group C, plus increased investment, for <u>example</u>: Added focus on deferred watershed maintenance and veg. mgmt. Guideline: 70 – 90% of industry standards in various asset classes
Group C	 Status quo, plus increased investment, for <u>example</u>: Prioritize risk, safety, security, wildfire equipment/structure hardening Guideline: 50 – 70% of industry standards in various asset classes
Status Quo	Current investment level

Review of Workshop 1A

Workshop #1A (12/17/2020): Infrastructure Assets

- Storage Tanks
- Water Supply
- Treatment Plants

Review – Recoating of Welded Steel Storage Tanks



- Recommended recoating interval = every 20 – 25 years
- 19 Tanks are currently overdue for recoating
- Cost to recoat a 1MG Tank about \$1M

Welded Steel Tank Example: Smith Saddle Tanks



Higher investment level allows recoating projects to stay minor and not become major rehabilitation projects



Overview

Workshop #1A (12/17/2020): Infrastructure Assets

Storage Tanks, Water Supply & Treatment Plants

Workshop #1B: Infrastructure Assets cont'd

- Pipelines
- Watershed
- Facilities & Capital Equipment
- Pump Stations

Pipelines

Investment Level	Projects over 10 Years
Status Quo	 70 miles of pipeline replacement 2,000 plastic service replacements (25% total)

Investment Level	Projects over 10 Years
Level C (Status Quo, plus)	 10 miles of pipeline replaced (80 miles total) 1,750 plastic services replaced (50% total)
Status Quo	 70 miles of pipeline replacement 2,000 plastic service replacement (25% total)

Investment Level	Projects over 10 Years
Level B (Level C, plus)	 10 miles of pipeline replaced (90 miles total) 1,850 plastic services replaced (75% total)
Level C (Status Quo, plus)	 10 miles of pipeline replaced (80 miles total) 1,750 plastic services replaced (50% total)
Status Quo	 70 miles of pipeline replacement 2,000 plastic service replacement (25% total)

Investment Level	Projects over 10 Years
Level A (Level B, plus)	 North Marin Line Transmission Replacement Alpine Direct Draw Intake System San Quentin Transmission Line Bottleneck 10 miles of pipeline replaced (100 miles total) 1,900 plastic services replaced (100% total)
Level B (Level C, plus)	 10 miles of pipeline replaced (90 miles total) 1,850 plastic services replaced (75% total)
Level C (Status Quo, plus)	 10 miles of pipeline replaced 1,750 plastic services replaced (50% total)
Status Quo	 70 miles of pipeline replacement 2,000 plastic service replacement (25% total)

Pipeline Replacement Rate

Investment Level	Rate	System Replacement*
Level A	10 miles/year	90 years
Level B	9 miles/year	100 years
Level C	8 miles/year	113 years
Status Quo	7 miles/year	129 years

*Current average age of pipes = 47 years.

- 900 miles pipe
 - 34% cast iron
 - 44% welded steel
 - 8% PVC/HDPE
 - 8% AC/GTP
 - 7% Other
- Average age is 47 years



Other = ACCP, BR, C, CMP, DI, LC, OD, Plastic, Unknown



65-year-old cast iron pipe, Fairfax (failed prior to expected life)



Other = ACCP, BR, C, CMP, DI, LC, OD, Plastic, Unknown



- Not just a matter of total miles but *also* picking the right miles
 - Cast iron
 - Geohazards
 - Liquefaction
 - Consequence of Failure
 - Coordination with City street paving work for reduction in customer impacts and cost



Plastic Services

- 8,000 total plastic services
- Installed in 1970s and 1980s
- Accounts for 27% total leaks over last 10 years
- In some cases, may be best use of funding to increase system reliability



Higher Investment – Level A

- North Marin Line
 - Sole transmission from Nicasio and Kent to San Geronimo Treatment Plant
 - 33" ACCP installed in 1957





Higher Investment – Level A

- San Quentin Transmission
 - Improve transmission between north and south parts of system
- Alpine Direct Draw Intake System
 - Direct transmission from Alpine to Bon Tempe Treatment Plant



Investment Level	Projects over 10 Years
Level A (Level B, plus)	 North Marin Line Transmission Replacement Alpine Direct Draw Intake System San Quentin Transmission Line Bottleneck 10 miles of pipeline replaced (100 miles total) 1,900 plastic services replaced (100% total)
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Watershed

Watershed Investment Opportunities

Investment Level	Projects over 10 Years
Status Quo	 Implementation of BFFIP at reduced schedule 7-15 culverts replaced per year Routine road maintenance 5-10% of system without upgrades Routine trail maintenance 2-5% of system with limited upgrades Ranger residence repairs limited to essential repairs

Watershed Investment Opportunities

Investment Level	Projects over 10 Years
Level C	 In addition to Status Quo: Implementation of BFFIP with 5% increase 20-25 Culverts replaced per year Routine road maintenance 10% of system with upgrades Routine trail maintenance 5% of system with limited upgrades Watershed habitat restoration projects
Status Quo	 Implementation of BFFIP at reduced schedule 7-15 Culverts replaced per year Routine road maintenance 5-10% of system without upgrades Routine trail maintenance 2-5% of system with limited upgrades Ranger residence repairs limited to essential repairs
Watershed Investment Opportunities

Investment Level	Projects over 10 Years
Level B	 In addition to Level C: Implementation of BFFIP with 10% increase Recreational facility upgrades (Parking lots, signs, picnic grounds, sanitation, etc.) Road to trail improvements on Concrete Pipe, Grassy Slope, and others
Level C	 Implementation of BFFIP with 5% increase 20-25 Culverts replaced per year Routine road maintenance 10% of system with upgrades Routine trail maintenance 5% of system with limited upgrades Watershed habitat restoration projects
Status Quo	 Implementation of BFFIP at reduced schedule 7-15 Culverts replaced per year Routine road maintenance 5-10% of system without upgrades Routine trail maintenance 2-5% of system with limited upgrades Ranger residence repairs limited to essential repairs

Watershed Investment Opportunities

Investment Level	Projects over 10 Years
Level A	 In addition to Level B: Implementation of BFFIP with 15% increase Additional watershed habitat restoration projects-West Peak Alpine dam historic preservation project Wildfire mitigation projects
Level B	 Implementation of BFFIP with 10% increase Recreational facility upgrades (Parking lots, picnic grounds, sanitation, etc.) Road to trail improvements on Concrete Pipe, Grassy Slope, and others
Level C	 Implementation of BFFIP with 5% increase 20-25 Culverts replaced per year Routine road maintenance with upgrades (Sky Oaks, Soulajule Rd, etc.) Routine trail maintenance 5% of system with limited upgrades Watershed habitat restoration projects
Status Quo	 Implementation of BFFIP at reduced schedule 7-15 Culverts replaced per year Routine road maintenance 5-10% of system without upgrades Routine trail maintenance 2-5% of system with limited upgrades Ranger residence repairs limited to essential repairs

BFFIP Implementation



Higher Investment – Level C

- In addition to Status Quo
- Accelerate BFFIP by 5%
- Watershed restoration
 - Potrero Meadows
 - Seeps and springs
 - Forest restoration
 - Conservation areas to protect sensitive resources
- Sky Oaks road repairs
- Accelerated culvert repairs





Forest Restoration Projects & Potrero Meadows

Higher Investment – Level B

- In addition to Level C
- Accelerate BFFIP 10%
- Watershed Recreation
 - Sanitation improvements
 - Signage updates
 - Parking lot rehab
 - Gateway entrance improvements
- Road to trail improvements & project restore
- New location for Bon Tempe fishing pier



Sanitation Upgrades

Watershed Higher Investment – Level A

- In addition to Level B
- Accelerate BFFIP 15%
- Wildfire preparation & mitigation
- Alpine Dam Historic Preservation
- West Peak Restoration Project







Watershed Investment Opportunities

Investment Level	Projects over 10 Years
Level A	 In addition to Level B: Implementation of BFFIP with 15% increase Additional watershed habitat restoration projects-West Peak Alpine dam historic preservation project Wildfire preparation and mitigation projects
Level B	 Implementation of BFFIP with 10% increase Recreational facility upgrades (Parking lots, picnic grounds, sanitation, etc.) Road to trail improvements on Concrete Pipe, Grassy Slope, and others
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Capital Equipment & Facilities

Status Quo Investment Level

Facilities

- Routine repairs, upgrades
- Administration Building electricity upgrades for mobile standby power
- Capital Equipment
 - Routine replacement of vehicles, heavy equipment, WQ lab equipment
 - Routine software/hardware upgrades



Administration Building Electric Upgrades for Mobile Standby Power

Higher Investment Level C

- Status Quo, plus:
- Facilities
 - Administration Building generator
 - Corp Yard generator
- Capital Equipment
 - Upgrade/replace Enterprise Resource Planning (ERP) System (SAP)
 - Replace Watershed Safety Vehicles



Fire truck (L) and water tender (R) would be replaced under Level C.

Higher Investment Level C – Warehouse & Emergency Operations Center

- Warehouse:
 - Minor upgrades to building
- Emergency Operations Center (EOC):
 - Improve functionality of EOC with current technology: phones, computers, monitors, equipment



Emergency Operations Center/Yard Training Room

Higher Investment Level B

- Investment Level C, plus:
- Capital Equipment:
 - Increase vehicle purchases
- Facilities
 - Major upgrades to Warehouse include seismic, electrical, mechanical, safety
 - 60-year old Warehouse seismically vulnerable (EOC located inside Warehouse)
 - Residence upgrades: Sky Oaks & Lake Lagunitas



Warehouse: Continuous Skylight Presents Seismic Challenge for Building

Higher Investment Level A

- Investment Level B, plus:
- Capital Equipment:
 - Equipment and vehicles needed to support valve exercising program and ensure functionality of District valves
- Facilities:
 - Replace 60-year old
 Administration Building, with new
 EOC to be located inside
 Administration Building



Dedicating Corte Madera office, 1962.

Capital Equipment & Facilities Investment Opportunities

Investment Level	Projects over 10 Years
Level A (Level B, plus)	 Equipment & vehicles for District valve exercising program Replace Administration Building (with new EOC)
Level B (Level C, plus)	 Major upgrade to Warehouse Upgrade Lake Lagunitas and Sky Oaks residences
Level C (Status Quo, plus)	 Upgrade/replace Enterprise Resource Planning (ERP) system Permanent generators for Administration Building & Corp Yard Replace Watershed safety vehicles Equipment to improve functionality of Emergency Operations Center
Status Quo	 Routine facility upgrades/repairs Routine vehicle/heavy equipment replacement Routine IT software/hardware upgrades

Pump Stations

Investment Level	Projects over 10 Years
Status Quo	10 major transmission pump replacementsReactive repairs

Investment Level	Projects over 10 Years
Level C (Status Quo, plus)	 10 pump stations rehabilitated Installation of 10 permanent generators Structure hardening (wildfire resiliency) at 20 pump stations
Status Quo	10 major transmission pump replacementsReactive repairs

Investment Level	Projects over 10 Years
Level B (Level C, plus)	 10 pump stations rehabilitated (20 total) Installation of 10 permanent generators (20 total) Structure hardening (wildfire resiliency) at 20 pump stations (40 total)
Level C (Status Quo, plus)	 10 pump stations rehabilitated Installation of 10 permanent generators Structure hardening (wildfire resiliency) at 20 pump stations
Status Quo	10 major transmission pump replacementsReactive repairs

Investment Level	Projects over 10 Years
Level A (Level B, plus)	 10 critical pump stations replaced Installation of 10 permanent generators (30 total) Structure hardening (wildfire resiliency) at 24 pump stations (64 total)
Level B (Level C, plus)	 10 pump stations rehabilitated (20 total) Installation of 10 permanent generators (20 total) Structure hardening (wildfire resiliency) at 20 pump stations (40 total)
Level C (Status Quo, plus)	 10 pump stations rehabilitated Installation of 10 permanent generators Structure hardening (wildfire resiliency) at 20 pump stations
Status Quo	10 major transmission pump replacementsReactive repairs

Pump charts



Total pumps = 178 Median age of pumps = 43 years

Total pump stations = 95 Median age of pump station = 53 years

Pump Station Examples



Fairview Park Pump Station, Tam Valley Constructed 1969, Pump Installed 1991





Sausalito Pumphouse Constructed 1962, Pumps Installed 1962 & 1987





Crescent Ave Pump Station, Sausalito Constructed 1959, Pumps Installed 1959 & 1962

Permanent Generators

• Increase system resiliency



Portable generators before PSPS deployment



Tam Woods #2 Pump Station, portable generator, Tam Woods # 1 tank

Structure Hardening (Wildfire Resiliency)

 Utilization of non-combustible materials, such as concrete blocks, metal roofs, & screens



Hind Pump Station Installed 1955



Higher Investment – Level A

- Critical Pump Stations
 - Workhorses of District



Federal Works Pump Station, 1985





San Quentin Pump Station, 1977





Phoenix Transfer Pump Station, Watershed, 1977

Investment Level	Projects over 10 Years
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Status Quo	10 major transmission pump replacementsReactive repairs

Summary: 10-Year Capital Plan FYE 2024-2033

10-Year Capital Investment Level Relative to Status Quo (\$ millions)

Asset Class	Level C	Level B	Level A
Pipelines	\$25	\$50	\$87
Storage Tanks	\$32	\$57	\$79
Pump Stations	\$12	\$24	\$44
Treatment Plants	\$16	\$51	\$71
Watershed	\$12	\$21	\$34
Facilities & Capital Equipment	\$8	\$13	\$38
Water Supply	\$5	\$27	\$51
Total	\$110	\$243	\$404

Operating Needs and Opportunities

Level C

• <u>Ranger staff enhancement</u>

- Additional 1-2 FTEs to support enhanced focus on education and enforcement
- Employee Development
 - New staff position to assist in developing, implementing and managing programs in support of employee training/development, workplace culture, and succession planning
- Lake study
 - Study of the biochemistry of lakes to understand opportunities for in-situ control of taste and odors (efficacy of alternative treatment approaches, mixing/aeration, etc.)
- Watershed Recreation Plan
 - A comprehensive plan that holistically considers recreational activities and provides management actions designed to protect the unique goals of different watershed user groups and the biodiversity of the district's watershed lands

Level B

Valve exercising crew

- *Reestablish* program for exercising 15,000 system valves with 2 new FTEs
- <u>SAP/ERP replacement project</u>
 - Addition of one FTE to lead 5+ year effort and then transition into support role for district enterprise systems
- <u>Watershed wide sign and trail improvements</u>
 - Updates to watershed signage to enhance visibility while promoting responsible recreation and natural resource protection, and trail system improvements to address ongoing trail issues

Level A

- Corrosion control specialist
 - As new pipes are installed with corrosion control systems, the resource need for ongoing maintenance increases
- <u>Controls technician</u>
 - Reflects ongoing expansion of SCADA system and associated control systems throughout the system
- Lab and field tech staffing
 - Needs depend upon 1) long-term approach to lake management and treatments and 2) changes to regulations regarding to lab certification requirements with QA/QC position
- Emergency Response Manager
 - The size/scope of MMWD may be on the bubble in terms of scope of this issue and need for dedicated position

Long Range Financial Model

Status Quo Financial Health - Assumptions

Assumed a one time decrease in water use of 6% in FY 2022 to reflect the current jump in water sales due to COVID-19.

Expense Inflation	FY 2022 and Beyond
General	3%
Supplies	3%
Utilities	3%
Water Production	4%
Capital	4%
Salary	3%
Benefits	5%

Status Quo Financial Health with 4% Revenue Increases (starting in FY 2022, baseline CIP, with 4% rate increase in April)

Cash Flow	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenues										
Rate Revenues	\$99,580,648	\$95,860,783	\$95,860,783	\$95,860,783	\$95,860,783	\$95,860,783	\$95,860,783	\$95,860,783	\$95,860,783	\$95,860,783
Revenue Adjustments	\$995,806	\$7,822,240	\$11,969,561	\$16,282,775	\$20,768,517	\$25,433,689	\$30,285,468	\$35,331,318	\$40,579,002	\$46,036,593
Connection Charges	\$810,182	\$810,182	\$810,182	\$810,182	\$810,182	\$810,182	\$810,182	\$810,182	\$810,182	\$810,182
Other Operating Revenue	\$812,851	\$812,851	\$812,851	\$812,851	\$812,851	\$812,851	\$812,851	\$812,851	\$812,851	\$812,851
Investment Income	\$346,083	\$281,537	\$254,854	\$400,881	\$403,329	\$411,495	\$432,591	\$462,088	\$497,427	\$538,957
Other Income	\$1,629,115	\$1,629,115	\$1,629,115	\$1,629,115	\$1,629,115	\$1,629,115	\$1,629,115	\$1,629,115	\$1,629,115	\$1,629,115
Total - Revenues	\$104,174,686	\$107,216,708	\$111,337,346	\$115,796,587	\$120,284,777	\$124,958,115	\$129,830,990	\$134,906,337	\$140,189,360	\$145,688,481
Expenses										
Operating Expenses	\$76,169,689	\$78,568,198	\$81,651,798	\$84,560,725	\$87,598,836	\$90,063,874	\$93,137,809	\$96,635,589	\$100,272,349	\$104,053,915
One Time Capital Expenses	\$422,629	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Existing Debt Service	\$10,181,830	\$10,174,004	\$9,071,759	\$8,953,821	\$8,950,720	\$8,949,134	\$8,954,634	\$8,956,449	\$8,952,408	\$8,451,407
Rate Funded Capital Projects	\$21,672,000	\$23,155,600	\$25,236,973	\$22,037,211	\$22,918,699	\$23,835,447	\$24,788,865	\$25,780,419	\$26,811,636	\$27,884,102
Total - Expenses	\$108,446,148	\$111,897,802	\$115,960,530	\$115,551,757	\$119,468,254	\$122,848,455	\$126,881,308	\$131,372,457	\$136,036,393	\$140,389,423
Net Cash Surplus/(Deficiency)	(\$4,271,462)	(\$4,681,094)	(\$4,623,184)	\$244,830	\$816,523	\$2,109,660	\$2,949,682	\$3,533,880	\$4,152,967	\$5,299,058

Status Quo Financial Health with 4% Revenue Increases

(Baseline CIP, with 4% rate increase in April)



Status Quo Financial Health with 4% Revenue Increases

(Baseline CIP, with 4% rate increase in April)



Dark blue line (min reserve target) = 25% of O&M

Gray line (max reserve target) = 50% of O&M
Summary

- Building blocks from Workshops 1A & 1B are incorporated into future workshops
- Workshop 2: Information and input incorporated into initial scenarios (March)
- Workshop 3: Scenarios refreshed and refined and financial model updated (May)
- Workshop 4: Present the 10-Year Financial Plan and roadmap for implementation (June)