
MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Cameron Dean, Acting Planning Director
Through: Erin Reinders, City Manager
Date: January 11, 2022
Re: First Draft of FY23-32 Capital and Major Maintenance Plan (CMMP)

SUMMARY: City Council reviews the Capital and Major Maintenance Plan (CMMP) every year. This is the first draft of the FY23-32 CMMP.

PREVIOUS COUNCIL ACTION: Council reviews drafts of the CMMP each year in January and March. In April 2021 Council approved the most recent FY22-31 CMMP, the first spanning ten years instead of five. No formal action is taken at this time.

BACKGROUND: Beginning in October, Planning worked with each department to update their capital projects. In response to City Council feedback, this year Staff revised the CMMP to minimize expenditures from the General Fund, particularly over the next several years. To that end, any General Fund projects that have not already commenced have been rescheduled to later years, employing the category rankings agreed upon by Council on November 9, 2021 (Resolution 2021-71) to prioritize them.

The Technical Advisory Committee (TAC), consisting of the City Manager, Finance Director, Public Works Director and the Planning Director, met on December 9, 2021 to review 11 projects submitted for funding in FY23. Department directors reviewed the TAC's comments on December 22, 2021.

This is not the final CMMP, but it is intended to provide Council the opportunity to view and comment on the work thus far. Comments and concerns will either be incorporated into the CMMP or discussed among the departments and administration to determine the best course of action. A second draft will be presented to Council in March. The final CMMP document will be presented for review and approval in April.

DISCUSSION: Last year, Council reviewed and approved the FY22-31 CMMP, with 69 projects and a total portfolio of \$231,255,491 over ten years. The first year of the CMMP is the most important because the financial figure represents what is approved to be budgeted. City Council approved \$41,898,546 to fund FY22 projects.

The FY23-32 Draft CMMP presented for your review and comment proposes 53 projects, including the Rolling Stock Replacement Plan and Facilities Maintenance Plan, at a cost of \$184,790,197 over the next ten years. The FY23 portion of the Draft CMMP proposes 11 projects for a total cost of \$30,095,019, with \$4,893,275 coming from the General Fund and \$15,983,500 from grants and other external funding. Staff proposes using the 1% Fund to offset some of what would otherwise be General Fund expenditures in FY23 by covering the remaining \$2,860,000 commitment for the Makushin Geothermal Project and \$1,000,000 for the Entrance Channel Dredging. After FY23, Staff proposes allowing the 1% Fund to grow until FY28, when it is expected to be sufficient to pay for the construction of the new Police Station at \$22,090,000.

Projects proposed for FY23 are focused on maintaining our current infrastructure and continuing currently funded projects. All three projects drawing from the General Fund or 1% Fund received funding in FY22 and are currently underway. The largest FY23 projects, the two dredging projects and Makushin Geothermal, are associated with City Council priorities. Additionally, both Makushin Geothermal and Entrance Channel Dredging will receive external funding, from OCCP and the Army Corps of Engineers respectively. External funding comprises 53% of the total FY23 requests.

Significant changes from the previous CMMP are as follows:

Makushin Geothermal Project: Multiple Electric projects, like the energy storage system, SCADA upgrades and submarine cable, have been removed. Where appropriate, they have been incorporated into this project, which represents all the reliability upgrades for the City electrical distribution system required to accept energy from the Makushin Geothermal Plant. The energy storage system is now being worked into the plant itself. Staff is not requesting any additional funding beyond what was planned in last year's CMMP, but OCCP's contribution of \$5,000,000 spread over FY23 and FY24 is now included. This is consistent with the current PPA as well as the associated amendments and MOA. However, OCCP has recently notified us that they may be requesting an amendment to the PPA, which if granted, would impact the contribution schedule. We will learn more later this month after meeting with OCCP.

Police Station: Construction for the new DPS station and fire station renovations have been delayed to FY28-29 with engineering in FY26.

Captains Bay Road: The Cost Benefit Analysis for Captains Bay Road is still in progress. Staff expects to revise the funding and phasing plan once it is complete later this month. For now, this project should be considered a placeholder.

Facilities Maintenance Plan: Staff is reviewing the criteria for including maintenance in the Facilities Maintenance Plan or other budgets. The numbers reported in the CMMP are based on the most recent draft, but should be expected to change.

ALTERNATIVES: This memo and presentation are for informational purposes only. Council is free to express concerns, recommendations or other comments and Staff will work to incorporate the changes into the CMMP. Staff will present the modified CMMP Draft at the scheduled meeting in March unless requested earlier.

FINANCIAL IMPLICATIONS: Council reviews the CMMP each year for an opportunity to have input and subsequently adopt the CMMP as part of the overall budgeting process. Title 6 of City Code requires the City Manager to submit a five-year capital improvement plan and budget of the proposed projects each year in conjunction with the City's operating budget. Each year, the City Council adopts the CMMP to help identify needs and set spending priorities for the coming five year period.

LEGAL: Not applicable.

STAFF RECOMMENDATION: No recommendation.

PROPOSED MOTION: No council action required.

CITY MANAGER COMMENTS: The Planning Department continues to do a wonderful job coordinating the CMMP Process. Staff looks forward to your feedback on this draft as we work to refine and develop the second draft.

ATTACHMENTS: FY23-32 Draft CMMP Summary Sheets and Budget Tables

FY23-32 CMMP

Electrical Breakers Maintenance and Service

Electric

Estimated Project & Purchase Timeline

Pre Design: FY27

Engineering/Design: FY27

Purchase/Construction: FY27

Project Description: All Generation and distribution/feeder breakers at the New and Old Powerhouse and Town Substation will be serviced by a qualified industry service company. Breakers will be assessed and serviced. A detailed report indicating condition of the specific breakers will be provided along with recommended service maintenance intervals per the relevant industry codes.

Project Need: The City operates two powerhouses and one substation. Each of these facilities has at least one primary electrical switchgear line-up. Electrical switchgear require maintenance and cleaning to ensure proper operation. Safe operation of switchgear reduces risks of arc-flash issues and improves operator safety. In the last five years, there has been very little major maintenance and testing performed at any of the powerhouses' or Town Substation's switchgear line-ups. Only general visual maintenance has been performed, except during the installation of the Unit 12 (CAT C280) project, when a modification at the Town Substation was made as part of that project. During the modification, the Contractor found that one of the substation breakers would not open/close properly. EPC onsite technicians working with EPC electrical maintenance leads in Anchorage were able to repair the breaker so that it will function properly. However, no other maintenance has been performed on this breaker or others. This project is part of the Electrical master Plan.

Development Plan & Status : This project will be funded by the Electric Proprietary Fund.

Cost Assumptions

Engineering, Design, Construction Admin	\$150,000
Other Professional Services	
Construction Services	
Machinery & Equipment	\$30,000
Subtotal	\$180,000
Contingency (30%)	\$54,000
Total Funding Request	\$234,000

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Electric Proprietary Fund	0	0	0	0	0	234,000	0	0	0	0	0	234,000
Total	0	0	0	0	0	234,000	0	0	0	0	0	234,000

FY23-32 CMMP

Project Description: Remodel the existing DPS building after a new DPS building is constructed and the Police Department moves to the new facility.

Project Need: Constructed in 1987, the present structure is in need of HVAC, electrical and architectural upgrades. Due to lack of space, the garage for the fire apparatus also houses EMS supplies, turnout gear, the air compressor and gym. The cramped arrangement is unsafe and risks contamination from fumes.

Development Plan & Status : The existing structure will be extensively renovated for use by Fire / EMS. The department will relocate to another facility during the work. Architectural firm JYL produced an initial cost estimate of \$8,970,000 dated February 28, 2020. Funding will come from the General Fund.

Fire Station Remodel Fire

Estimated Project & Purchase Timeline

Pre Design: FY26

Engineering/Design: FY26

Purchase/Construction: FY29



DRAFT

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	0	0	0	10,383,896	0	0	0	10,383,896
Total	0	0	0	0	0	0	0	10,383,896	0	0	0	10,383,896

Project Description: Replacing the playground at Ounalashka Community Park (Kelty Field).

Project Need: Playgrounds are designed to last between 20 and 30 years. The Ounalashka Community Park playground was built in 1999 and reaches the end of its lifespan in FY28. Several structures have started to show age and the black rubber safety tiles now are easily moved out of place.

Development Plan & Status : This project will be funded by the General Fund.

FY23-32 CMMP

Community Park Replacement Playground PCR

Estimated Project & Purchase Timeline

Pre Design: FY27

Engineering/Design: FY27

Purchase/Construction: FY28



DRAFT

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	0	0	500,000	0	0	0	0	500,000
Total	0	0	0	0	0	0	500,000	0	0	0	0	500,000

Project Description: Providing access to Community Park from the southwest side.

Project Need: Many children in the neighborhood adjacent to the south side of Kelty Field cross the stream to access the park. This project would create walking access to the park in the southwest side to allow these children to safely cross the stream and gain access to the park.

Development Plan & Status : This project will be funded by the General Fund.

FY23-32 CMMP

Kelty Field SW Access PCR

Estimated Project & Purchase Timeline

Pre Design: FY28

Engineering/Design: FY28

Purchase/Construction: FY29



DRAFT

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	0	0	0	500,000	0	0	0	500,000
Total	0	0	0	0	0	0	0	500,000	0	0	0	500,000

Project Description: Turning the area in the Aquatic Center where the slide is into a Kiddie Pool/Splash Pad.

FY23-32 CMMP

Project Need: The waterslide is the Aquatic Center's only attraction. It is not used often because it requires extra staffing and three swimming lanes are closed when running. Patrons are limited to one at a time and lifejackets are not allowed. If a child cannot reach the bottom of the pool where the slide comes out or they cannot swim to the side they are not able to use the slide. A kiddie pool with fountains and smaller slides will run continuously during open hours and with no additional staffing. Children who are not able to swim will be able to use this facility as a safe introduction to water. It will also be useable on its own. Multiple kids can use it simultaneously, and the new improvements can fit in the same space where the slide will be removed.

Development Plan & Status : This project will be funded by the General Fund.

Kiddie Pool/Splash Pad
PCR

Estimated Project & Purchase Timeline
Pre Design: FY29
Engineering/Design: FY29
Purchase/Construction: FY30

DRAFT

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	0	0	0	0	500,000	0	0	500,000
Total	0	0	0	0	0	0	0	0	500,000	0	0	500,000

FY23-32 CMMP

Multipurpose Facility PCR

Project Description: Ounalashka Community Park was built in 1999 and is located in Unalaska Walley. It is the department's largest park and includes a softball field, outdoor basketball/tennis court, and a paved trail with some permanent exercise stations. In addition to the athletic equipment, it also has a playground, pavilion, and a snack shack which is occasionally used during PCR events. This project would build a covered multipurpose facility where the current tennis court is or somewhere close to it.

Project Need: In 2012, the court was resurfaced with plastic tiles in the hopes that they would be an improvement over the worn out court. However, they do not offer a realistic tennis surface and the court measures two feet too short. This project will:

- Improve the quality of the park's amenities.
- Evaluate the current and future facility in an effort to best accommodate Unalaska residents for the next 20 to 30 years.
- Provide a multipurpose covered facility, that can serve as an emergency shelter for the island outside the tsunami inundation zone.

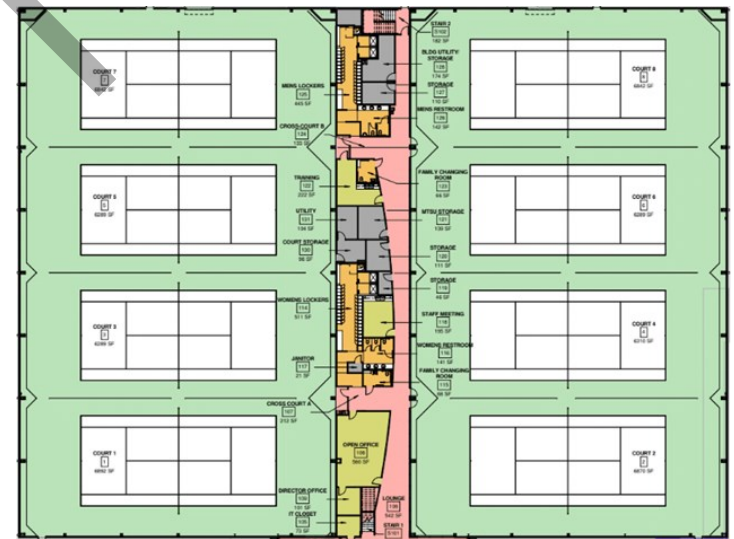
Development Plan & Status : PCR staff and the Advisory Board will gauge public interest in bringing a covered facility with two regulation tennis courts. The estimated cost is \$5,629,000. \$562,000 or 10% will be spent in FY26 for design and scoping. These numbers came from Lose Design. There is grant funding available for emergency related services and the City will also seek a partnership with other island organizations to pursue available resources.

Estimated Project & Purchase Timeline

Pre Design: FY25

Engineering/Design: FY26

Purchase/Construction: FY27



	Subtotal	4,330,000
Contingency (set at 30%)		1,299,000
	TOTAL	5,629,000
Less Other Funding Sources (Grants, etc.)		
	Total Funding Request \$	5,629,000

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	562,900	5,066,100	0	0	0	0	0	5,629,000
Total	0	0	0	0	562,900	5,066,100	0	0	0	0	0	5,629,000

Project Description: Creating a city park in the area above Westward Plant. This area of the community currently lacks any recreational amenities.

Project Need: Park development on west/southwest area of the city above Westward. The road system and utilities are already in place reducing the costs of construction. It is a natural place of a park serving an under-developed area of the city.

Development Plan & Status : Funding for this project would come from the General Fund.

FY23-32 CMMP

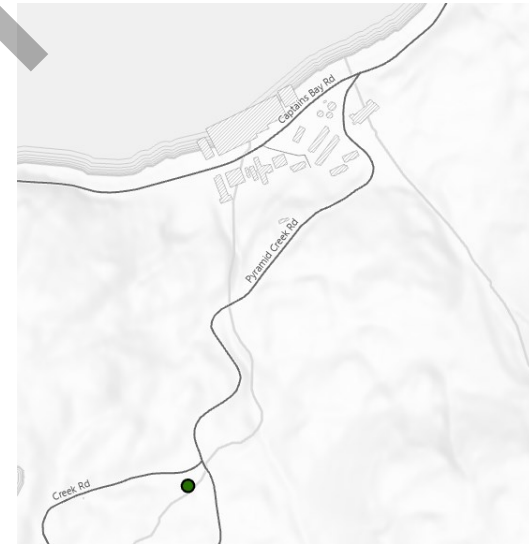
Park Above the Westward Plant PCR

Estimated Project & Purchase Timeline

Pre Design: FY29

Engineering/Design: FY29

Purchase/Construction: FY30



DRAFT

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	0	0	0	0	3,200,000	0	0	3,200,000
Total	0	0	0	0	0	0	0	0	3,200,000	0	0	3,200,000

FY23-32 CMMP

Project Description: Expanding the pool towards the road in order to provide space for bleachers.

Project Need: Four years ago PCR purchased a Colorado Timing System so the Aquatic Center can accommodate larger swim meets. However, the size of our Natatorium is barely able to hold two swim teams as well as spectators comfortably. This project will expand the Aquatic Center on the south side to allow for bleachers for both spectators and teams and expand on the east side to install a small warm-up cool-down, 2 lane, 15 yard, 3 foot deep pool. This will make our pool competition ready and even open up the possibilities to having Regionals.

Development Plan & Status : This project will be funded by the General Fund.

Pool Expansion PCR

Estimated Project & Purchase Timeline

Pre Design: FY29

Engineering/Design: FY29

Purchase/Construction: FY30



Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	0	0	0	0	2,000,000	0	0	2,000,000
Total	0	0	0	0	0	0	0	0	2,000,000	0	0	2,000,000

Project Description: Repurpose the existing warming pool into a spa.

FY23-32 CMMP

Project Need: The warming pool at the Aquatic Center currently has a jet system and filters that go through our filtration system. We could easily build a wall between the jets and the entrance of the pool to create an overflow spa. The only additions that would be required is a wall and a separate heating unit. This would provide heated hydrotherapy to our community members who need it.

Development Plan & Status : This project will be funded by the General Fund.

Spa
PCR

Estimated Project & Purchase Timeline

Pre Design: FY29

Engineering/Design: FY29

Purchase/Construction: FY30

DRAFT

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	0	0	0	0	200,000	0	0	200,000
Total	0	0	0	0	0	0	0	0	200,000	0	0	200,000

Project Description: Controls system upgrades to new N4 platform for 11 City owned buildings.

Project Need: New N4 upgrades necessary to stay current with technology.

Development Plan & Status : In FY20, our HVAC controls contractor, Long Building Technologies, gave us an informal no cost quote. In FY23 we will work with Long to refine the scope and get a solid cost estimate. In FY24, Project implementation will occur.

FY23-32 CMMP

HVAC Controls Upgrades - 11 City Buildings

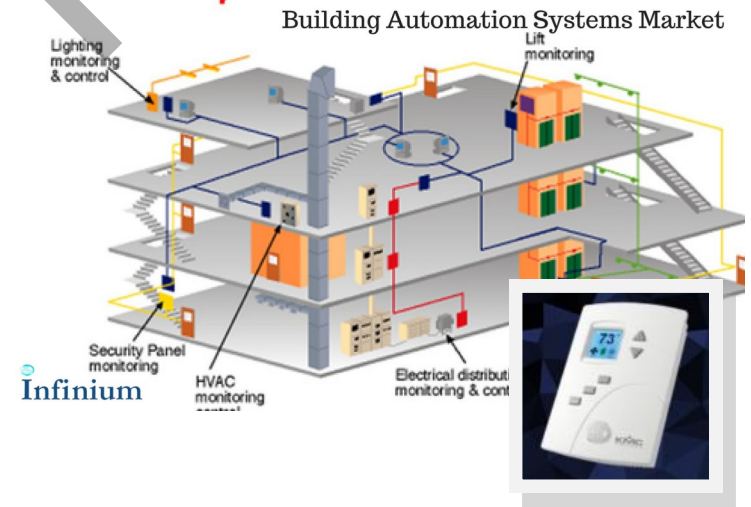
Public Works

Estimated Project & Purchase Timeline

Pre Design: FY23

Engineering/Design: FY23

Purchase/Construction: FY24



Cost Assumptions

Engineering, Design, Const Admin	2,000
Other Professional Services	500
Construction Services	331,213
Machinery & Equipment	0
Subtotal	333,713
Contingency (set at 30%)	100,114
TOTAL	433,827

Less Other Funding Sources
(Grants, etc)

Total Funding Request 433,827

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	433,827	0	0	0	0	0	0	0	0	433,827
Total	0	0	433,827	0	0	0	0	0	0	0	0	433,827

Project Description: Remove the UST (underground storage tank) at City Hall and replace with an approved above ground fuel oil tank.

Project Need: UST's are known to rust and begin leaking. UST's are no longer approved and this tank needs to be replaced with an above ground tank with proper leak detection.

Development Plan & Status : This project will be funded by the General Fund.

FY23-32 CMMP

Underground Fuel Tank Removal / Replacement Public Works

Estimated Project & Purchase Timeline

Pre Design: FY28

Engineering/Design: FY28

Purchase/Construction: FY28



DRAFT

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
General Fund	0	0	0	0	0	0	60,000	0	0	0	0	60,000
Total	0	0	0	0	0	0	60,000	0	0	0	0	60,000

FY23-32 CMMP

Project Description: This project will evaluate solutions to prevent the grease from entering the scum decant tank. This CMMP item includes the costs for an engineering evaluation and implementation of the improvements.

Project Need: At times, there can be large mats of accumulated grease in the clarifier. While skimming, the water/grease mixture is directed down the clarifier drainpipe to the scum decant tank. The water/grease mixture enters the scum decant tank, and the grease re-suspends in the water, allowing the grease to flow under the baffle with the water into the tank drain to the lift station. The grease then congeals and becomes a maintenance challenge for the lift station.

Development Plan & Status : The budget for this project was estimated from the Water Master Plan. A more accurate budget will be determined during the design phase of the project. Funding for this project will come from the Wastewater Proprietary Fund.

Scum Decant Tank Wet Well Improvements

Wastewater

Estimated Project & Purchase Timeline

Pre Design: FY26

Engineering/Design: FY27

Purchase/Construction: FY28



Cost Assumptions		
	Other Professional Services	
	Engineering, Design, Construction Admin	50,000
	Construction Services	60,000
	Machinery & Equipment	60,000
	Subtotal	170,000
	Contingency (15%)	25,500
	Total Funding Request	195,500

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Wastewater Proprietary Fund	0	0	0	0	0	50,000	145,500	0	0	0	0	195,500
Total	0	0	0	0	0	50,000	145,500	0	0	0	0	195,500

FY23-32 CMMP

Project Description: This project involves the engineering to evaluate and installing potential improvements to the two WWTP clarifiers. The evaluation should include a review of the record drawings, a site tour of the plant, and an evaluation of alternatives to optimize the configuration of the clarifiers.

Project Need: After screening, the wastewater is rapidly mixed with a coagulant and polymer to improve the settling process in the clarifier. The wastewater in the first clarifier portion is clear and settles well. As the wastewater effluent passes under the clarifier baffle wall at the discharge end, the water quality degrades by becoming turbid. It is presumed that the settled sludge is carried downstream to the chlorine contact tanks, where it settles. This is very inefficient and requires the operators to clean the tank at least twice a month to prevent excessive sludge buildup. The stirred sludge also requires more chlorine for disinfection and, as a result, more sodium bisulfate for dechlorinating. Significant benefit will be realized in both labor and chemical costs if the clarifier's performance is improved.

Development Plan & Status : The budget for this project was estimated from the Wastewater Master Plan and is an estimate at this point in the process. A more accurate budget will be determined during the design phase of the project. Funding for this project will come from the Wastewater Proprietary Fund.

Wastewater Clarifier Baffling Improvements

Wastewater

Estimated Project & Purchase Timeline

Pre Design: FY28

Engineering/Design: FY29

Purchase/Construction: FY30



Cost Assumptions

Engineering, Design, Construction Admin	\$50,000
Other Professional Services	
Construction Services	\$100,000
Machinery & Equipment	\$100,000
Subtotal	\$250,000
Contingency (30%)	\$75,000
Total Funding Request	\$325,000

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Wastewater Proprietary Fund	0	0	0	0	0	0	0	50,000	275,000	0	0	325,000
Total	0	0	0	0	0	0	0	50,000	275,000	0	0	325,000

FY23-32 CMMP

Project Description: This project will replace approximately 600 linear feet of cast iron pipe segment under Biorka Drive with ductile iron. The replacement of this pipe was designed already by Regan Engineering, but the project was dropped when paving of Biorka Drive, which was the driving factor, was shelved.

Project Need: This section of water pipe was installed in the 1940's with cast iron pipe, the last section of cast iron pipe in Unalaska's water system. This line has been repaired in the past and has been in service longer than its life expectancy. Cast iron is a brittle material that is also susceptible to corrosion. Cast iron pipe often fails catastrophically when subjected to excessive pressure surge or ground movement. Pipe failure becomes more frequent with a cast iron pipe as it ages and loses wall thickness to corrosion. Emergency repairs after an unexpected catastrophic pipe failure are usually many times more expensive than proactive pipe replacement due to incidental damage, overtime, lack of in-stock repair materials, and general disruption of utility operations. Preventative replacement of pipes with high failure risks is a good practice in order to avoid the more costly emergency repair situation brought by a pipe failure.

Development Plan & Status : The budget for this project was estimated from the Water Master Plan. A more accurate budget will be determined during the design phase of the project. Funding for this project will come from the Water Proprietary Fund. Total cost for this project is estimated at \$396,500.

Biorka Drive Cast Iron Waterline Replacement

Water

Estimated Project & Purchase Timeline

Pre Design: FY27

Engineering/Design: FY28

Purchase/Construction: FY28



Cost Assumptions

Engineering, Design, Construction Admin	\$30,000
Other Professional Services	
Construction Services	
Machinery & Equipment	\$275,000
Subtotal	\$305,000
Contingency (30%)	\$91,000
Total Funding Request	\$396,500

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Water Proprietary Fund	0	0	0	0	0	0	396,500	0	0	0	0	396,500
Total	0	0	0	0	0	0	396,500	0	0	0	0	396,500

FY23-32 CMMP

Icy Lake Capacity Increase & Snow Basin

Diversion

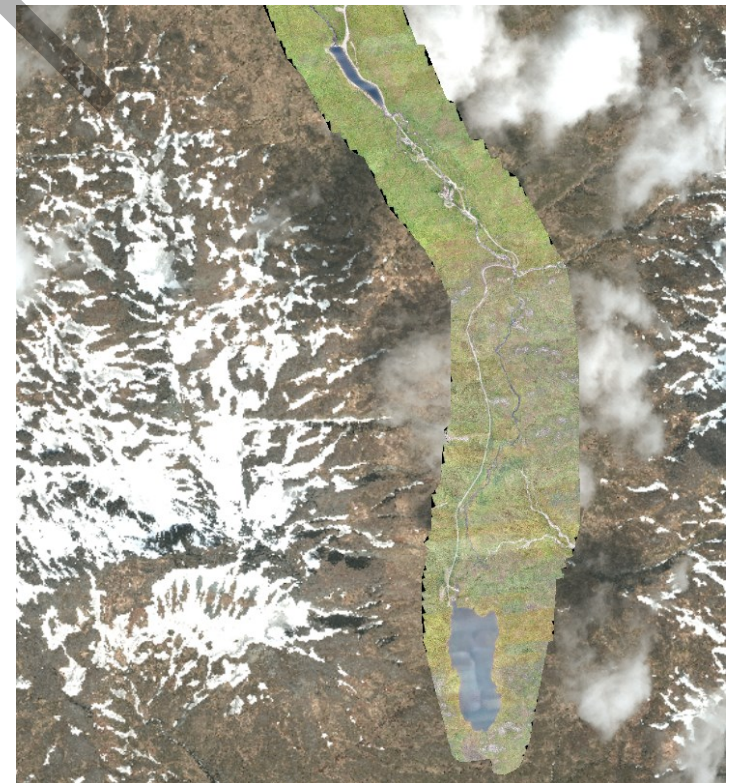
Water

Estimated Project & Purchase Timeline

Pre Design: FY31

Engineering/Design: FY32

Purchase/Construction: FY32



Project Description: This project will increase the height of the existing dam on the north side of Icy Lake and construct a new dam on the south end of Icy Lake. The 2006 Golder-letter describes the project as follows:

- The existing sheet pile dam at the north end of the lake would be raised 5 feet and the dam length increased from 67 to 98 feet.
- A new sheet pile dam, approximately 6 feet tall by 193 feet long would be built at the south end of the lake.
- Additional grading and riprap would be required for a larger spillway apron at the north dam.
- Riprap would be required for wave erosion protection of the south dam.
- Grouting at the north and south dams would be required to seal fractured bedrock.

Project Need: Additional capacity for raw water storage at Icy Lake would be beneficial to help span processing seasons that occur during the more prolonged and frequent dry weather periods. Water system operators use the lake to “bank” surplus water between processing seasons when demand is low, so that by the beginning of a processing season the utility is starting out with a full lake. During heavy processing the lake level gradually drops as demands exceed the combined capacity of Icy Creek and the wells, and operators release lake water into Icy Creek. This operational strategy has been stressed in recent years when dry weather coincides with processing seasons and the lake is drawn nearly empty. If the lake is run empty and the water system is not able to meet demands, water rationing and reducing fish processing throughput or diverting fish to processors in other communities would be required.

Development Plan & Status : The budget for this project was estimated from the Water Master Plan. A more accurate budget will be determined during the design phase of the project. Funding for this project will come from the Proprietary Fund and State Grants.

Cost Assumptions

Engineering, Design, Construction Admin	\$150,000
Other Professional Services	\$30,000
Construction Services	\$2,020,000
Machinery & Equipment	
Subtotal	2,200,000
Contingency (30%)	\$660,000
Total Funding Request	2,860,000

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Water Proprietary Fund	0	0	0	0	0	0	0	0	0	2,860,000	0	2,860,000
Total	0	0	0	0	0	0	0	0	0	2,860,000	0	2,860,000

FY23-32 CMMP

Installation of Meter and Booster Pump at Agnes Beach PRV Station

Water

Estimated Project & Purchase Timeline

Pre Design: FY28

Engineering/Design: FY29

Purchase/Construction: FY30

Project Description: This project would add water metering and a booster pump system at the Agnes Beach PRV station. The water metering will aid in leak detection, and utility management and understanding of where water is being used and when. The booster pump will provide water supply redundancy to Westward Seafoods, one of the largest customers in the water system, as well as redundancy to any further development along Captain’s Bay Road.

Project Need: The Agnes Beach PRV station drops the pressure of water from Pressure Zone 2 (Captains Bay Road) to Pressure Zone 3 (Town) hydraulic grade. The station also allows for water to flow to the higher elevation areas of Haystack Hill with an option to allow external boosting in the event of a fire demand on Haystack Hill. The current PRV set up does not allow any method of measuring water flow through the station and severely limits the ability to reverse flow from the wells in the lower pressure Zone 3 to higher pressure Zone 2 (Westward Seafoods). A booster pump will allow for the pumping of water from the lower pressure zone to the higher pressure zone in the event of a shut-down of the Pyramid Water Treatment Plant due to, for example, high turbidity.

Development Plan & Status : The budget for this project was estimated from the Water Master Plan. A more accurate budget will be determined during the design phase of the project. Funding for the project will come from the Water proprietary Fund.

Cost Assumptions		
Engineering, Design, Construction Admin		\$50,000
Other Professional Services		\$20,000
Construction Services		\$160,000
Machinery & Equipment		\$70,000
Subtotal		\$300,000
Contingency (30%)		\$90,000
Total Funding Request		\$390,000

Source	Appropriated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Water Proprietary Fund	0	0	0	0	0	0	0	70,000	320,000	0	0	390,000
Total	0	0	0	0	0	0	0	70,000	320,000	0	0	390,000

