

CITY OF UNALASKA
UNALASKA, ALASKA

RESOLUTION 2023-16

A RESOLUTION OF THE UNALASKA CITY COUNCIL ADOPTING THE FY24-FY33 CAPITAL AND MAJOR MAINTENANCE PLAN

WHEREAS, the purpose of the Capital Major and Maintenance Plan (CMMP) is to formalize the process of identifying and completing capital projects and major maintenance projects; and

WHEREAS, the CMMP serves as a tool to help the City effectively and efficiently meet the needs of the community; and

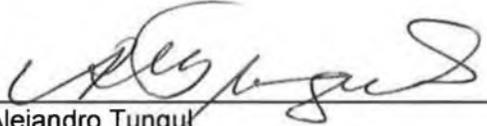
WHEREAS, City Departments were invited to submit project nominations; and

WHEREAS, this planning document outlines anticipated or recommended projects and expenditures for the upcoming ten years; and

WHEREAS, City staff and City Council have had the opportunity to review and comment on the nominations and the FY24-FY33 CMMP.

NOW THEREFORE BE IT RESOLVED that the Unalaska City Council approves and adopts the ten-year CMMP, for FY24-FY33, as presented by the City Manager pursuant to Unalaska Code of Ordinances § 6.12.040.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on April 25, 2023.


Alejandro Tungul
Mayor Pro Tem

ATTEST:


Estkarien P. Magdaong
Acting City Clerk



MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Thomas Roufos, Associate Planner
Through: William Homka, Assistant City Manager, Acting City Manager
Date: April 25, 2023
Re: RESOLUTION 2023-16: A RESOLUTION OF THE UNALASKA CITY COUNCIL
ADOPTING THE FY24-FY33 CAPITAL AND MAJOR MAINTENANCE PLAN

SUMMARY: This year Unalaska's CMMP has been condensed due to constraints caused from project management capacity as well as staffing shortages. We also anticipate less revenue this year due to crab season cancellation and other economic variables. This year's project nominations address critical issues to the City such as emergency repairs to buildings and infrastructure.

DISCUSSION: Staff presented City Council the 3rd draft CMMP FY24 on April 11, 2023. Staff made changes based on the feedback received from the Council and corrected a rounding error to match a contract. Changes include: The 11-Building HVAC Upgrade (\$433,827) was removed as it was completed as part of the FY23 Facilities Maintenance Plan; Makushin Geothermal was updated to match the PPA contract, removing \$150,000 from the Outside Funding stream; and the FY24 Facilities Maintenance Plan removed painting projects totaling \$123,000 to the Public Works operations budget based on guidance from the City Finance Department. These changes removed a total of \$706,827 from the FY24 budget.

At the April 11 meeting, the City Council was briefed by the Public Works Director regarding the flatbed truck. The removal of the flatbed truck (\$200,000) is reflected in this draft of the CMMP.

Finally, based on Council Comments, the Past Appropriations column has been updated to a green color to enhance readability.

Existing projects that received funding in prior years will continue to move forward. Fourteen (14) projects are proposed for the FY24 CMMP for a total of \$26,286,791 (FY23 values).

Table 1: FY24 CMMP PROJECTS BY FUND

Note: CBR = Captains Bay Road

General Fund	
CBR Safety & Paving	\$ 3,161,147
Equipment Storage Bldg.	\$ 1,350,830
Facility Maintenance Plan	\$ 152,500
Rolling Stock Plan	\$ 1,280,000
Subtotal	\$ 5,944,447

Electric Proprietary Fund	
Distribution Equipment	\$ 100,000
Gen Set Rebuild	\$ 1,000,000
<u>Large Transformer Maint.</u>	<u>\$ 195,000</u>
Subtotal	\$ 1,295,000
Ports Proprietary Fund	
<u>Restroom – UMC</u>	<u>\$ 480,160</u>
Subtotal	\$ 480,160
Solid Waste Proprietary Fund	
	\$ -
Subtotal	\$ 0
Wastewater Proprietary Fund	
	\$ -
<u>CBR Wastewater Line Install</u>	<u>\$ 50,000</u>
Subtotal	\$ 50,000
Water Proprietary Fund	
Icy Lake Hydro Survey	\$ 72,800
<u>WH1/2 On-site Chlorine</u>	<u>\$ 448,500</u>
Subtotal	\$ 521,300
Various Proprietary Funds	
<u>Facilities Maintenance Plan</u>	<u>\$ 52,000</u>
Subtotal	\$ 52,000
External Funds (Grants)	
CBR Safety & Paving	\$ 9,993,854
CBR Electric Line Install	\$ 2,300,000
CBR Waterline Installation	\$ 3,600,000
<u>Makushin Geothermal</u>	<u>\$ 1,850,000</u>
Subtotal	\$17,743,854
TOTAL	\$26,086,791

The CMMP calendar is condensed this year. Table 2 identifies important dates for the CMMP.

Table 2:	CMMP FY24 CALENDAR
Date	Description
1-24-2023	Regular Council Meeting – CMMP Work Session
3-28-2023	Regular Council Meeting – CMMP & Rolling Stock Presentation
4-10-2023	Special Council Meeting – Follow up CMMP
4-11-2023	Regular Council Meeting – Presentation of UCSD Budget and Community Support Grants
4-25-2023	Regular Council Meeting – Resolutions for Community Support Grants, CMMP, Establish school support
➔ 5-9-2023	Regular Council Meeting – Ordinance 1st reading adopting operating and capital budget
5-23-2023	Regular Council Meeting – Ordinance 2nd reading adopting operating and capital budget 5/23/23

ALTERNATIVES: Council may choose to add or subtract projects or issues presented.

FINANCIAL IMPLICATIONS: There are critical issues happening to the commercial fishing industry that will ultimately impact revenue streams for the City of Unalaska. There are also projects that the city needs help with in funding.

LEGAL: No legal review required.

STAFF RECOMMENDATION: NA

CITY MANAGER COMMENTS: The FY24 CMMP focuses on maintenance / upkeep for existing city facilities and infrastructure. It supports City Council priority projects such as Captains Bay Road, Makushin Geothermal and related improvements. I put this year's CMMP forth for your consideration and approval.

ATTACHMENTS: FY24 CMMP Spreadsheet
FY24 CMMP Summary Sheets
FY24 Rolling Stock
FY24 Facilities Maintenance Plan
Resolution 2023-16

	PAST	2024	2024	2024	2024 Total	10-Year	
	APPROPRIATION	General	Proprietary	External		Request Total	
Electric Proprietary Fund							
Electric							
Captains Bay Electric Line Installation	8,350,836			2,300,000	2,300,000	2,300,000	1
Electrical Distribution Equipment Replacement	215,000		100,000		100,000	900,000	2
Generator Sets Rebuild	1,250,000		1,000,000		1,000,000	1,500,000	3
Large Transformer Maintenance and Service			195,000		195,000	195,000	4
Electric Total	9,815,836		1,295,000	2,300,000	3,595,000	4,895,000	
Electric Proprietary Fund Total	9,815,836		1,295,000	2,300,000	3,595,000	4,895,000	
General Fund							
Electric							
Makushin Geothermal Project	5,870,000			1,850,000	1,850,000	4,850,000	5
Electric Total	5,870,000			1,850,000	1,850,000	4,850,000	
Fire							
Fire Total	12,000				0	11,885,396	
PCR							
PCR Total					0	14,886,000	
Planning							
Planning Total					0	200,000	
Public Safety							
Public Safety Total					0	25,090,000	
Public Works							
Captains Bay Road Safety & Paving		3,161,147		9,993,854	13,155,001	41,755,001	6
Equipment Storage Building	195,000	1,350,830			1,350,830	1,350,830	7
Facilities Maintenance Plan	1,296,636	152,500	52,000		204,500	1,443,030	8
Rolling Stock Replacement Plan	404,000	1,280,000			1,280,000	13,110,000	9
Public Works Total	1,895,636	5,944,477	52,000	9,993,854	15,990,331	57,658,861	
General Fund Total	7,777,636	5,944,477	52,000	11,843,854	17,840,331	114,570,257	
Ports Proprietary Fund							
Ports							
Restroom Unalaska Marine Center	50,000		480,160		480,160	480,160	10
Ports Total	50,000		480,160		480,160	480,160	
Ports Proprietary Fund Total	50,000		480,160		480,160	480,160	
Solid Waste Proprietary Fund							
Solid Waste							
Solid Waste Total	300,000				0	7,620,000	
Solid Waste Proprietary Fund Total	300,000					7,620,000	
Wastewater Proprietary Fund							
Wastewater							
Captains Bay Road Wastewater Line Installation			50,000		50,000	11,237,600	11
Wastewater Total			50,000		50,000	11,849,100	
Wastewater Proprietary Fund Total			50,000		50,000	11,849,100	
Water Proprietary Fund							
Water							
Captains Bay Road Water Line Installation	1,200,000			3,600,000	3,600,000	8,300,000	12
Icy Lake Hydrographic Survey			72,800		72,800	72,800	13
WH1 and WH2 On-site Generation of Chlorine			448,500		448,500	448,500	14
Water Total	1,200,000		521,300	3,600,000	4,121,300	8,821,300	
Water Proprietary Fund Total	1,200,000		521,300	3,600,000	4,121,300	8,821,300	
Request Total	19,143,472	5,944,477	2,398,460	17,743,854	26,086,791	148,235,817	

FY24-33 CMMP

Electrical Breakers Maintenance and Service

Electric

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.

Estimated Project & Purchase Timeline

Pre Design: FY27

Engineering/Design: FY27

Purchase/Construction: FY27

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	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Electric Proprietary Fund	0	0	0	0	234,000	0	0	0	0	0	0	234,000
Total	0	0	0	0	234,000	0	0	0	0	0	0	234,000

FY24-33 CMMP

Electrical Distribution Equipment Replacement

Electric

Estimated Project & Purchase Timeline

Pre Design: NA

Engineering/Design: NA

Purchase/Construction: NA

Project Description: This project funds the purchase of ongoing replacement equipment for the electrical distribution system. It includes electrical switches, section cans, transformers, and cables. Electrical equipment will also be purchased for new customers and for existing customers who need to upgrade electrical service.

Project Need: Ongoing replacement of the distribution system equipment is necessary to maintain its reliability and protect the assets of the City and ensure the safe distribution of electricity. This project will correctly capture and capitalize the expenditures made to keep the system operational as well as in expand the system where necessary.

Development Plan & Status : Funding for this project will come from the Electrical Proprietary Fund retained earnings.

FY23 Cost Assumptions

Engineering, Design, Construction Admin	
Other Professional Services	
Construction Services	
Machinery & Equipment	\$100,000
Subtotal	\$100,000
Contingency (0%)	0
Total Funding Request	\$100,000

Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Electric Proprietary Fund	115,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	900,000
Total	115,000	100,000	0	900,000								

FY24-33 CMMP

Fire Station Remodel

Fire

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.

Estimated Project & Purchase Timeline

Pre Design: FY26

Engineering/Design: FY26

Purchase/Construction: FY29



Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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

FY24-33 CMMP

Community Park Replacement Playground

PCR

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.

Estimated Project & Purchase Timeline

Pre Design: FY27

Engineering/Design: FY27

Purchase/Construction: FY28



Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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

FY24-33 CMMP

Kelty Field SW Access

PCR

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.

Estimated Project & Purchase Timeline

Pre Design: FY28

Engineering/Design: FY28

Purchase/Construction: FY29



Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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

FY24-33 CMMP

Kiddie Pool/Splash Pad

PCR

Estimated Project & Purchase Timeline

Pre Design: FY29

Engineering/Design: FY29

Purchase/Construction: FY30

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

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.

Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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

FY24-33 CMMP

Multipurpose Facility

PCR

Project Description: Ounalashka Community Park was built in 1999 and is located in Unalaska Valley. 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.

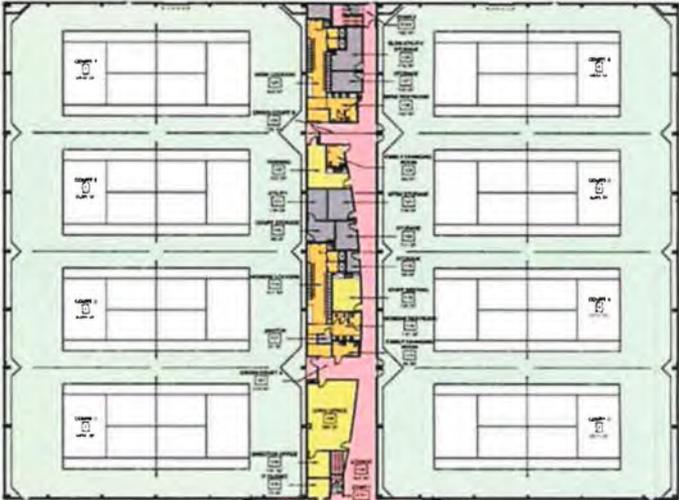
Development Plan & Status : PCR staff and the Advisory Board will gauge public interest in bringing a covered facility with two regulation tennis courts. The estimated cost is \$5,629,000. \$562,000 or 10% will be spent in FY26 for design and scoping. These numbers came from Lose Design. There is grant 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	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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.

FY24-33 CMMP

Park Above the Westward Plant

PCR

Estimated Project & Purchase Timeline

Pre Design: FY29

Engineering/Design: FY29

Purchase/Construction: FY30



Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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

FY24-33 CMMP

Pool Expansion PCR

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.

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



Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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

FY24-33 CMMP

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

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

Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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

FY24-33 CMMP

Burma Road Chapel Upgrades

Public Works

Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY21

Purchase/Construction: FY24



Project Description: In 2019 the PCR side of the Burma Road Chapel showed signs of rotten siding along the lower portions of the exterior wall. Architect Corey Wall, JYL Architects, crawled under the structure and took photos of the rim joists. Evidence of rot was observed below the building. The original scope of this project included removing shingles, roof boards, and damaged insulation, and installing framing for eave soffit ventilation/increased depth for insulation, insulation to R-30, new roof boards, re-roofing the building, and painting the new eaves and trim. Additional roof repairs will be required in the future. An imminent need is the repair of the rotten sill plate, rim joists, and exterior siding on the PCR side of the Burma Rd Chapel.

Project Need: Exterior siding, structural sill plates and rim joists all show signs of rot and need replacement. Also, the facility lacks proper insulation and ventilation, which causes snow melt on the roof that runs down to the eave, freezes and causes ice dams to separate the walls and roof. As ice dams grow larger, the water from the melting snows backs up and leaks between wood shingles into the building causing water damage. In FY08, metal flashing was installed on the eaves over the electric cable system to heat the flashing. A new roof will protect the facility for at least another 30 years.

Development Plan & Status : DPW's Facilities Maintenance budget will replace the metal flashing and heat trace on the eave as an interim solution when the present system fails. The rotten siding along the lower portions of the exterior wall and sill plate repair work began in November 2020 and will be completed by the end of FY21. The major roof repairs will be conducted in FY24.

Cost Assumptions

Engineering, Design, Const Admin	70,000
Other Professional Services	10,000
Construction Services	373,077
Machinery & Equipment	-
Subtotal	453,077
Contingency (set at 30%)	135,923
TOTAL	589,000

Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
General Fund	110,000	0	479,000	0	0	0	0	0	0	0	0	479,000
Total	110,000	0	479,000	0	0	0	0	0	0	0	0	479,000

FY24-33 CMMP

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.

Underground Fuel Tank Removal / Replacement

Public Works

Estimated Project & Purchase Timeline

Pre Design: FY28

Engineering/Design: FY28

Purchase/Construction: FY28



Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. 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

FY24-33 CMMP

Project Description: This project will cover 2.5 miles of wastewater line from Airport Beach Road to OSI

Project Need: This funding is required for the CTP grant. Captains Bay Road is the logical location for future commercial and residential expansion for the community of Unalaska. Captains Bay has the docking facilities and space for equipment storage to accommodate this and other industrial growth. Oil companies have expressed interest in Unalaska's deep-water port as a resupply port for their northern seas oil exploration and drilling operations. Construction of the road and utility improvements needs to begin now so Unalaska can meet the current and future needs of the community.

Development Plan & Status : Captains Bay Road currently has sewer line services from the intersection of Airport Beach Road to Westward Seafoods, a distance of one mile. This project will eventually install a new wastewater line from Westward Seafoods entirely to OSI.

The additional wastewater funds are necessary to extend the wastewater line an additional 1,200 feet from the current terminus to the end of the CTP paving project. Reagan Engineering has quoted the design at \$50,000, and the construction cost estimate at \$987,600 (\$823/ft * 1200').

HDR Engineering performed a Cost-Benefit Analysis (CBA) of the proposed Captains Bay Road Paving and Utilities Upgrade Project. The purpose of the CBA is to justify project costs to support funding requests to upgrade, pave, illuminate, provide pedestrian walkway, and extend utilities. The range of project benefits includes reduced road maintenance costs, reduced vehicle maintenance costs, reduced vehicle emissions, improved safety, travel time savings, avoided road closures (rock slides, avalanches, accidents). The project is at 65% design and broken into 3 segments over 3 years. The CBA compares project costs against project benefits by segment and by phase to enable decisions to be made regarding the best approach going forward.

Cost Assumptions		
	Other Professional Services	
	Engineering, Design, Construction Admin	50,000
	Construction Services	11,187,600
	Machinery & Equipment	
	Subtotal	
	Contingency (15%)	
	Total Funding Request	11,237,600

Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Wastewater Proprietary Fund		0	50,000	11,187,600	0	0	0	0	0	0	0	11,237,600
Total		0	50,000	11,187,600	0	0	0	0	0	0	0	11,237,600

Captains Bay Road Wastewater Line Installation

Wastewater

Estimated Project & Purchase Timeline
 Pre Design: FY26
 Engineering/Design: FY27
 Purchase/Construction: FY28

Captains Bay Road and Utilities



FY24-33 CMMP

Scum Decant Tank Wet Well Improvements

Wastewater

Estimated Project & Purchase Timeline

Pre Design: FY26

Engineering/Design: FY27

Purchase/Construction: FY28



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.

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	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Wastewater Proprietary Fund		0	0	0	50,000	145,500	0	0	0	0	0	195,500
Total		0	0	0	50,000	145,500	0	0	0	0	0	195,500

FY24-33 CMMP

Wastewater Clarifier Baffling Improvements

Wastewater

Estimated Project & Purchase Timeline

Pre Design: FY28

Engineering/Design: FY29

Purchase/Construction: FY30



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.

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	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Wastewater Proprietary Fund	0	0	0	0	0	0	50,000	275,000	0	0	0	325,000
Total	0	0	0	0	0	0	50,000	275,000	0	0	0	325,000

FY24-33 CMMP

Biorka Drive Cast Iron Waterline Replacement

Water

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.

Estimated Project & Purchase Timeline

Pre Design: FY27

Engineering/Design: FY28

Purchase/Construction: FY28



Cost Assumptions

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

Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Water Proprietary Fund	0	0	0	0	0	396,500	0	0	0	0	0	396,500
Total	0	0	0	0	0	396,500	0	0	0	0	0	396,500

FY24-33 CMMP

Icy Lake Capacity Increase & Snow Basin Diversion Water

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

Estimated Project & Purchase Timeline

- Pre Design: FY31
- Engineering/Design: FY32
- Purchase/Construction: FY32



Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Water Proprietary Fund	0	0	0	0	0	0	0	0	2,860,000	0	0	2,860,000
Total	0	0	0	0	0	0	0	0	2,860,000	0	0	2,860,000

FY24-33 CMMP

Installation of Meter and Booster Pump at Agnes Beach PRV Station Water

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.

Estimated Project & Purchase Timeline
 Pre Design: FY28
 Engineering/Design: FY29
 Purchase/Construction: FY30

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	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Water Proprietary Fund	0	0	0	0	0	0	70,000	320,000	0	0	0	390,000
Total	0	0	0	0	0	0	70,000	320,000	0	0	0	390,000

FY24-33 CMMP

WH1 and WH2 On-site Generation of Chlorine Water

Project Description: This project in both Well House 1 and Well House 2 will include the removal of the existing Chlorine Gas system and the installation of an on-site system which generates liquid Chlorine (Sodium Hypochlorite) using salt and electricity.

Project Need: Using stringent regulations, the EPA is doing away with Chlorine Gas as the primary method of disinfecting potable water.

Vendors for Chlorine Gas are becoming scarce as most Water Treatment Plants and other users have already changed over to an alternative. There are only two remaining Chlorine Gas vendors located on or near the west coast which will ship to Alaska. We are currently using the vendor who is located on the coast. If they cease to carry Chlorine Gas, the remaining vendor is twice the price due to the extra cost involved in shipping the Chlorine Gas to the west coast from Nevada. In June of 2021, Chlorine Gas manufacturers across the US declared a "Force Majeure" due to production issues. The price for Chlorine Gas increased in mid-August 2021.

Since both well houses are located in residential areas, using Chlorine Gas at these locations is a clear safety concern due to the possibility of a Chlorine Gas leak. This hazard continues to increase as more housing is developed and constructed. On-site generation at the well houses will eliminate this safety issue.

Also, potable water treated with Chlorine Gas is more acidic than Sodium Hypochlorite. Combined with the rise in EPA's standards, there is a very high possibility that we will be required to perform a corrosion control study and begin adding a corrosion control inhibitor to our potable water. Switching to Sodium Hypochlorite will help lower the acid index of our drinking water. This will lessen the possibility of having to perform the study or add an inhibitor.

In addition, the multiple safety items associated with Chlorine Gas that we are required to own are very expensive, highly regulated and take a significant amount of time to maintain.

Development Plan & Status : This project will require a consultant for design and engineering to obtain Alaska Department of Environmental Conservation approval. A contractor will be needed for construction.

Estimated Project & Purchase Timeline

- Pre Design: FY24
- Engineering/Design: FY24
- Purchase/Construction: FY24



Cost Assumptions

Engineering, Design, Construction Admin	\$60,000
Other Professional Services	
Construction Services	\$185,000
Machinery & Equipment	\$100,000
Subtotal	\$345,000
Contingency (30%)	\$103,500
Total Funding Request	\$448,500

Source	Appropriated	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	10 Yr. Total
Water Proprietary Fund	0	448,500	0	0	0	0	0	0	0	0	0	448,500
Total	0	448,500	0	448,500								

FY24 Rolling Stock Replacement Plan Summary

By Department

As of 04-16-23

Vehicle #	Dept	Primary Driver	Description	Year	Life Cycle	Replace Date	Replace With	Miles	Hours	Description of New Vehicle	Transfer Old Vehicle To	FY24 \$\$\$	Est or Quote
UPD2891	DPS	Patrol	4x4 Expedition	2017	7	2024	New	67,228		4x4 Expedition	Clerks	\$ 70,000	Est
CH7954	City Hall	Clerks	4x4 Explorer	2005	15	2020	UPD2891	60,635			Surplus	\$ -	
UPD5153	DPS	Patrol	4x4 Expedition	2017	7	2024	New	84,275		4x4 Expedition	Asst CM	\$ 70,000	Est
CH4087	City Hall	ACM	4x4 Explorer	2005	15	2020	UPD5153	61,428			Surplus	\$ -	
UPD9114	DPS	Patrol	4x4 Expedition	2016	7	2023	New	70,415		4x4 Expedition	Engineering	\$ 70,000	Est
PW9623	DPW	Eng	4x4 Explorer	2002	15	2017	UPD9114	120,416			Surplus	\$ -	
UPD5563	DPS	Patrol	4x4 Expedition	2014	7	2021	New	63,873		4x4 Expedition	Fin-DIR	\$ 70,000	Est
CH7413	Finance	Fin-DIR	4x4 Explorer	2003	15	2018	UPD5563	90,451			CHFloater	\$ -	
RG2	DPW	Roads	CAT 14H Grader	2004	18	2022	NEW		20,796	CAT 14H Grader	Surplus	\$ 1,000,000	Est
PW1992	DPW	VM	F250 Flatbed 2WD	1995	15	2010	N/A	53,097		N/A	Surplus	N/A	

TOTAL \$ 1,280,000

By Fund

GENERAL FUND	\$ 1,280,000
ELECTRIC FUND	\$ -
WATER FUND	\$ -
WASTEWATER FUND	\$ -
SOLID WASTE FUND	\$ -
PORTS / HARBOR FUND	\$ -

TOTAL \$ 1,280,000

FY23-32 Rolling Stock and Equipment Replacement Plan

Legend:

Salmon	= General Fund
Pink	= Electric Fund
Green	= Solid Waste Fund
Blue	= Ports Fund
Ivory	= Wastewater Fund
Purple	= Water Fund
White	= FY23 Proposed New Addition to Fleet
Yellow	= FY23 Replacements

Abbreviations:			
Department of Public Works	DPW	Dept Public Utilities	DPU
Engineering	E	Water	W
Roads	Roads	Wastewater	WW
Facilities Maintenance	FM	Line Crew	LC
Supply	S	Powerhouse	P
Vehicle/Equipment Maintenance	VM	Solid Waste/Landfil	LDF
Director	DIR	Floater	Float
Deputy Director	DEP		

City Hall	CH	Dept Public Safety	DPS
City Manager	CM	Police	UPD
Assist City Mgr	ACM	Fire/EMS	UFD
Clerks	C	Animal Control Offi	ACO
Planning	Plan	PCR	PCR
Finance	Fin	Ports	Port
Information System	IS	Do Not Replace	DNR

04-16-23

Vehicle #	Class	Dept	Primary User	Make	Function / Description	Year	Life Cycle	Replace Date	FY23 Replace Priority	Miles / Hours	Replace With	Transfer To	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
UPD2891	GP	DPS	DPS	Ford	4x4 Expedition	2017	7	2024	1	60,414	New	C	\$68,000									
CH7954	GP	Admin	C	Ford	4x4 Explorer - Red	2005	15	2020	2	59,198	UPD2891	Surplus	\$0									
UPD5153	GP	DPS	DPS	Ford	4x4 Expedition	2017	7	2024	3	71,229	New	ACM	\$68,000									
CH4087	GP	ADMIN	ACM	Ford	4x4, Explorer	2005	15	2020	4	59,971	UPD5153	Surplus	\$0									
UPD9114	GP	DPS	DPS	Ford	4x4, Expedition	2016	7	2023	5	61,970	New	E	\$68,000									
PW9623	GP	DPW	E	Ford	4x4 Explorer	2002	15	2017	6	119,294	UPD9114	Surplus	\$0									
FL2	EQ	DPW	VM	Hyster	Forklift	1988	20	2008	7	10,254	New	Surplus	\$85,000									
S2878	HE	DPW	VM	GMC	C5500 Service Truck	2007	15	2022	8	38,084	New	Surplus	\$175,000									
PW1992	GP	DPW	Roads	Ford	F250 Flatbed 2WD Q-Tribe	1995	15	2010	9	53,097	New	Surplus	\$150,000									
TR21	EQ	DPW	Roads	A-1 Welding	Shoring Trailer	1997	20	2017	10	8,754	New	Surplus	\$25,000									
LF0750	HE	DPU	LDF	Ford	F-750 Flatbed with Lift	2003	15	2018	11	9,326	New	Surplus	\$80,000									
PW4751	HE	DPW	S	Ford	Flatbed F550 with Box	2004	15	2019	12	76,492	New	Surplus	\$80,000									
LF6065	GP	DPU	LDF	Ford	F250 Pickup 4x4	2003	15	2018	13	50,287	New	Surplus	DNR									
AC4	EQ	DPW	VM	Ingersol Rand	Air Compressor	1994	20	2014	14	9,705	New	Surplus	\$35,000									
TR2	EQ	DPW	FM	Trailmax	Trailer (Scissor lift)	1992	20	2012	15	7,817	New	Surplus	\$50,000									
GS18	EQ	DPS	DPS	Generac	Stationary Backup Generator	1999	20	2019	16	7,717	New	Surplus	\$80,000									
W7587	GP	DPU	W	Ford	F150 4x4	2008	15	2023	17	37,736	New	Surplus	\$40,000									
FL5	EQ	DPW	S	Manitou	Forklift	2004	20	2024	18	1,195	New	Surplus	\$75,000									
UPD1438	GP	DPS	DPS	Ford	4x4 Expedition	2017	7	2024	19	20,569	New	Ports	\$45,000									
HM9296	GP	PORTS	Ports-DIR	Ford	4x4, Explorer XLT	2007	15	2022	20	85,842	UPD1438	Surplus	\$0									
UPD7430	GP	DPS	DPS	Ford	4x4, Expedition	2017	7	2024	21	47,444	New	Ports	\$45,000									
HM3572	GP	PORTS	Ports	Ford	4x4 Expedition XLT	2018	15	2025	22	84,720	UPD7430	Surplus	\$0									
PW4397	GP	DPW	FM	Ford	4x4, Pickup Super Cab	2009	15	2024	23	44,260	New	Surplus	\$50,000									
AC2	EQ	DPW	Roads	Ingersol Rand	Air Compressor - Portable	1994	20	2014	24	201	New	Surplus	\$20,000									
PS2	EQ	DPW	Roads	Etnyre	Asphalt Distributor	2004	15	2019	25	5,744	New	Surplus	\$65,000									
RG2	HE	DPW	Roads	CAT	Grader 14H	2004	18	2022	26	30,620	New	Surplus	\$600,000									
HML1	HE	PORTS	Ports	CAT	908 Loader	2004	18	2022	27	7,504	New	Surplus	\$250,000									
PW4572	GP	DPW	FM	GMC	One Ton Service Truck	2006	15	2021	28	63,404									\$60,000			
UFD3535	HE	UFD	UFD	Kenworth	Pumper/Tender #3	2005	18	2023	29	5,927									\$350,000			
UPD5565	GP	DPS	DPS	Ford	4x4 Expedition	2015	7	2022	30	40,374									\$45,000			
UFD6859	GP	UFD	UFD	Ford	F350 Ambulance	2016	7	2023	31	5,314									\$100,000			
UPD5150	GP	DPS	DPS	Ford	4x4 Expedition	2017	7	2024	32	39,497									\$45,000			

