MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: William Homka, Planning Director
Through: Erin Reinders, City Manager
Date: March 23, 2021
Re: FY22-31 Capital and Major Maintenance Plan (CMMP)

SUMMARY: Staff provided City Council a CMMP draft presentation at the January 11, 2021 City Council meeting. Afterward the administration and department directors continued working on the CMMP project proposals and budgets. The administration and department directors worked together on several occasions to evaluate the ten year FY22 - 31 CMMP portfolio using the metrics of City Council budget goals, project need, compliance requirements, and pressing maintenance needs.

Presently, sixty-nine (69) projects are in the FY22-31 CMMP for a total of $ 223,531,954. Twenty one (21) projects are proposed in FY22 seeking $ 45,993,695 using various funding sources such as over $20 million in grants. The FY22 rolling stock accounts for $ 1,395,144 and is funded from general and proprietary funds.

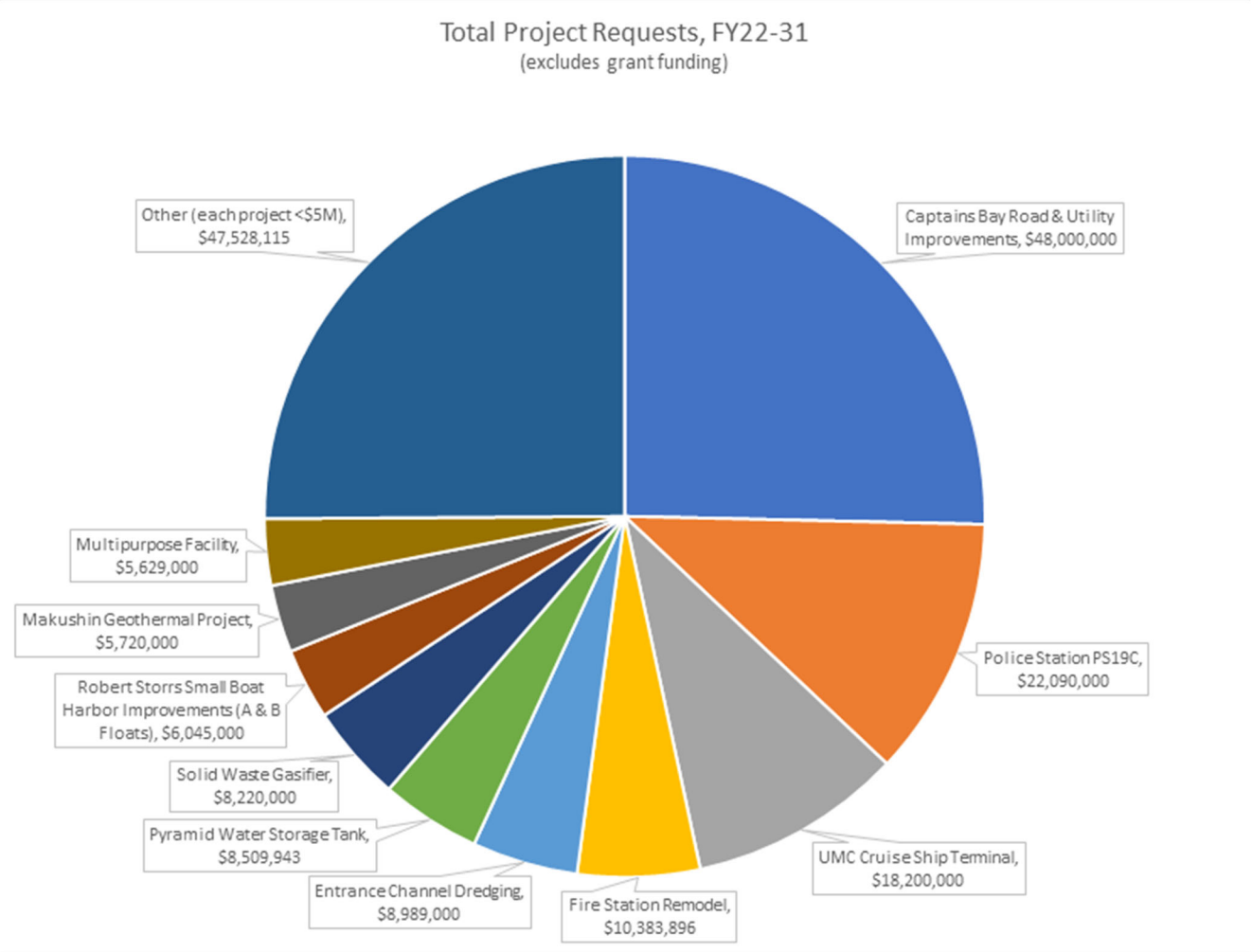
This is the first time a 10 year CMMP is presented to City Council. Unalaska City Code requires only a five year plan. Staff decided the additional five years provide better project planning and budgeting. The City's growing financial concerns promise for more thorough project review and vetting in the coming years. The Planning Department has prepared a larger scale spreadsheet printed on a plotter. This should help see the phasing, budget sources and overall plan for the 10 year CMMP time period.

PREVIOUS COUNCIL ACTION: City Council reviews the CMMP several times each year for an opportunity to have input on projects, priorities and budgeting purposes. It subsequently adopts the CMMP as part of the City's annual budget.

BACKGROUND: Each year City Council is presented opportunities to review the draft CMMP in preparation for adopting the upcoming fiscal year budget. The process invites members to learn and ask questions about the plan's projects. The Planning Department presented Unalaska's first 10 Year Draft FY22-31 CMMP to Council on January 11, 2021. There was significant discussion about several projects, most notably rolling stock as well as the sustainability of Unalaska's annual capital needs and future plans. Council's general consensus was not to increase rolling stock and equipment purchases in FY22. Exceptions were a loader for the Ports Department and a small backup generator to assist the Waste Water Division.

Planning continued its work on the CMMP with department directors about the proposed and ongoing projects. The Technical Advisory Committee met to review proposed changes. One significant change is the timing and phasing for some projects. A 10 year plan presents opportunities to begin project planning farther in advance. In past CMMP documents some projects would 'hover' in the fourth and fifth year of the five year plan. The practice kept projects visible, but one unintended consequence was the appearance of a financially aggressive plan in terms of funding, timing and project management.

This year's CMMP also has two new line items to reflect the Rolling Stock and Major Maintenance plans. The line items summarize the amounts of each while individual tables can be reviewed for specific projects and expenses.



On March 8, 2021 the City Manager emailed Council's budget goals to departments to assist with project evaluation and budgeting. The reminder facilitated a review of CMMP projects using the goals, capacity for project management and project scheduling. The specific council goals used are:

General Fund Surplus/Deficit

1. *The General Fund operations will be budgeted without a deficit. The Council may appropriate additional funds from surplus to cover costs of capital projects.*

Proprietary Funding

2. *Staff will continue to seek ways to balance budgets in the proprietary funds.*

Operating Expenses

3. *City management shall continue to examine ways to reduce expenditures without significantly impacting the level and quality of services to the public.*

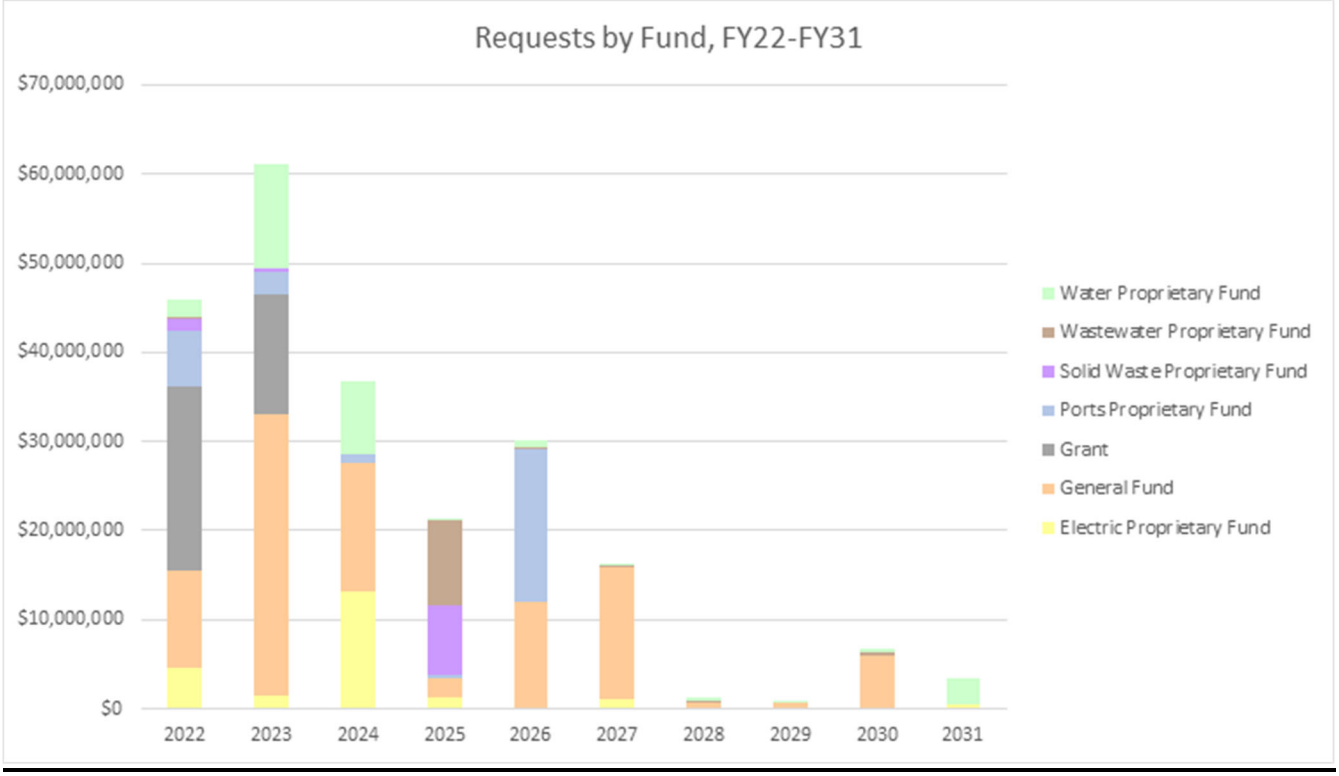
4. *City management shall continue to examine ways to reduce inventory without significantly impacting the level and quality of services to the public.*

Capital Projects

5. *New capital assets or maintenance of existing capital assets will be limited to projects approved by Council in the CMMP, which will include projects that are mandated or required by statute, projects that maintain our existing infrastructure, and projects that address life, safety, or health issues, and projects that support the economic development of Unalaska.*

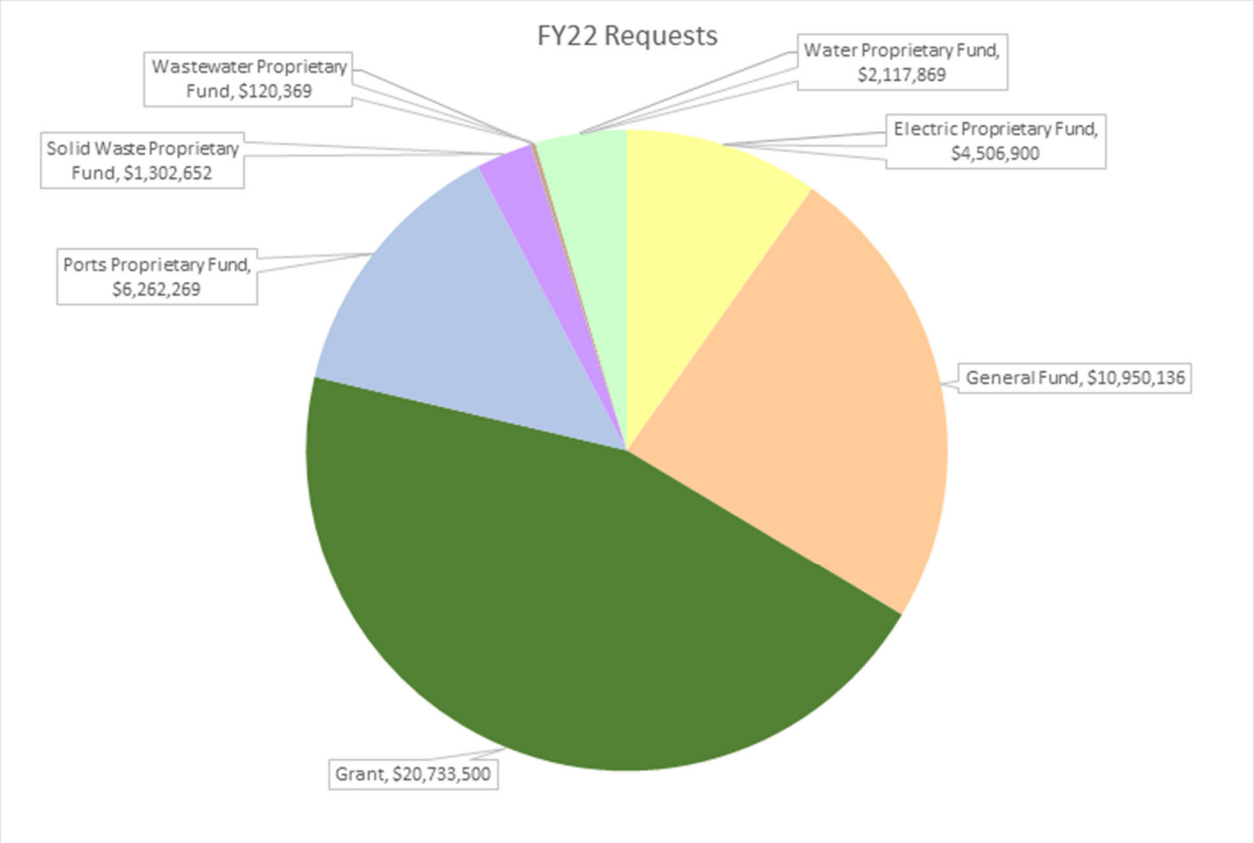
6. *The replacement and maintenance plans for all existing capital assets will be reviewed annually.*

7. *The vehicle and heavy equipment fleet requirements will be reviewed annually and reduced where appropriate without significantly impacting services provided to the public.*



DISCUSSION: The 10 year CMMP proposes 69 projects and a budget of $ 223,531,954. Twenty One (21) projects are proposed in FY22 for $ 45,993,695 including $ 1,395,144 for rolling stock. Of the $ 45,993,695 total, $ 20,733,500 is anticipated to be covered by grant funding. The following table provides more detail for FY22:

FY22	**Amount**	**Rolling Stock**	**Total**
Electric Proprietary Fund	4,264,938	241,962	4,506,900
General Fund	10,300,513	649,623	10,950,136
Grant	20,733,500	0	20,733,500
Ports Proprietary Fund	6,045,000	217,269	6,262,269
Solid Waste Proprietary Fund	1,171,100	131,552	1,302,652
Wastewater Proprietary Fund	43,000	77,369	120,369
Water Proprietary Fund	2,040,500	77,369	2,117,869
Total	**44,598,551**	**1,395,144**	**45,993,695**



Grants

Grants contribute significantly to the FY22 and FY23 CMMP budget. The FY22 budget of $ 45,993,695 includes $ 20,733,500 in grant funding (45.1%). The long planned Entrance Channel Dredging project is scheduled to begin this year at a cost of $ 38,456,000. Unalaska was awarded a $ 26,967,000 grant from the US Water Resources Development Act which pays for 75% of the dredging project. The City contribution of $ 8,989,000 from the General Fund completes the project funding. The project phasing and costs are divided across the FY22-23 fiscal years.

Another project with significant grant funding is the Robert Storrs Small Boat Harbor Improvements. The total project cost of $ 9,945,000 includes a grant of $ 3,250,000 from the Alaska Department of Transportation. Currently, this project is specifically mentioned on potential General Obligation Bond being considered by the State legislature. The Ports Proprietary Fund is the source for the project's remaining balance of $ 6,045,000. The project's grant/local fund ratio is about 35% / 65%.

1% Capital Project Fund

In 1988 City Council passed Ordinance 88-18 to increase the sales and use tax from two to three percent. Proposition 1 was presented the 1% tax increase as a ballot measure on the October, 1998 general election. It was approved by a majority of Unalaska's voters. The additional one percent generates revenues to fund capital improvement projects. The

1% Capital Project fund balance is currently about $11 million. This fund is available to fund projects in the CMMP.

Project Specifics

Several FY22 projects deserve some attention due to their timing, relationship to other projects, or ongoing efforts to secure grant funding. They include the 34.5 kV Submarine Cable Replacement, Electric Energy Storage System, Captains Bay Road and Utility Project, Makushin Geothermal, Communications Infrastructure and the Pavement Preservation and Sealcoating projects. Together the projects total $ 68,609,938 or 30.7% of the 10 year CMMP. Also for consideration is the Rolling Stock and Facilities Maintenance Plans.

Electric Upgrades and Makushin Geothermal

Together the 34.5kV Submarine Cable Replacement project ($ 2,340,000) and the Electric Energy Storage System ($ 3,549,938) sum to a total of $ 5,889,938 and are currently needed for safety and power resource reasons. These projects have been on the CMMP for several years in one form or another. However, the Makushin Geothermal project will likely incorporate Electric Energy Storage System as part of that overall project budget and the 34.5kV Submarine Cable Replacement will likely be included in the Integration Plan if it is able to come on line in the next two years, but the cable is becoming an increasing safety concern. In effect, the project is in the FY22 CMMP twice – initial plans were for the improvement to contribute toward the City's $ 5 million cost share for the Makushin project also budgeted.

On February 23, 2021 OCCP presented reasons to City Council for requesting a one year extension for the City's $ 500 million power purchase agreement (PPA). The agreement is set to expire on June 30, 2021. OCCP needs additional time to secure project financing, which has delayed the project timeline. If approved, the extension will affect Unalaska's CMMP by potentially delaying the needed cable replacement, installation of an energy storage system, and how the City budgets its $ 5 million matching commitment to the geothermal project for capital improvements. Staff split that into FY22 and FY23 with a $ 2.5 million budget each year.

Captains Bay Road

The Captains Bay Road Improvement and Utility Project remains on the CMMP again this year with hopes of earning grant funding from Alaska's Department of Transportation Plan or other sources. The City already approved $ 2 million toward the project which leaves $ 52 million to be secured/budgeted before the project can begin. City staff applied to Alaska's CAPSIS (Online Capital Project System) after breaking the project up into smaller phases.

The State of Alaska FY21 budget was $ 42.5 million for transportation capital projects. Dividing the Captains Bay Road into smaller project phases may increase its chance for a funding award each year. Unalaska has five applications pending with the State of

Alaska CAPSIS and are listed below in order of priority. The amount requested from the State is next to each project.

PROJECT	REQUEST AMOUNT
Captains Bay Road and Utility Improvements	$4,000,000
Robert Storrs Small Boat Harbor Improvements	$3,400,000
General Hill Booster Pump	$318,600
Unalaska Marine Center Cruise Ship Terminal	$13,000,000
Pyramid Water Treatment Plant Micro Turbines	$732,000
TOTAL	**$21,450,000**

Communications Infrastructure

This is a new CMMP project this year and is being considered because it partners with a private sector project. In FY17 City Council approved funding for a small fiber optic infrastructure development project. Two proprietary funds still have the money budgeted for this project and total $ 105,974. The funds are Wastewater and Water and they equally have $ 52,987 that can be transferred for use as part of this Communications and Infrastructure project.

GCI has applied to Unalaska for permits to begin a trenching project to install fiber optic cable throughout the City. This may be Unalaska's last significant opportunity to install conduit and fiber to all of its facilities and save significant cost. The underground infrastructure project offers immediate safety and security improvements, faster and more manageable connectivity between City facilities, will increase the City's ability to rely on large data uses such as GIS mapping and live stream security cameras, and improve some existing software platforms.

The Planning Department serves as project coordinator and is working with the Department of Public Works, Department of Public Utilities, Information Systems, and City Attorney and GCI representatives to prepare a Joint Trenching Agreement (JTA). The JTA is near completion. The initial cost estimate was $ 2.5 million but work on the JTA has helped to reduce the cost thus far and the city currently has about 15,000 of the 55,000 linear feet required for a City-wide system. Conduit is available on Captains Bay Road and for about 9,000 feet of Ballyhoo Road.

The JTA offers spare conduit to GCI as a fair exchange for the cost savings it receives by installing conduit simultaneously. If the City had to trench the project as a separate project it would cost over $ 2.5 million. At this time the cost for conduit installation quoted by GCI is $ 8/lf and $ 1,450 for each vault purchased and installed.

Staff has lowered the cost for this project to $ 2 million because the project still requires a separate contract to install fiber, switches, and other requirements to complete the network. The FY22 CMMP cost should come down and might be phased into two years

to match GCI's phasing. Costs may be lower by the time City Council adopts the FY22 CMMP in April, 2021.

Pavement Preservation and Sealcoating

The City invested significant resources in paving its thoroughfares throughout the community. The pavement is aging and it needs to be sealed again to preserve the investment for future years. This project was originally going to coincide with the airport runway resurfacing/sealing project. The State of Alaska maintains the runway but Unalaska would save significantly by hiring the same contractor while it is already on island for the airport work. The original budget was estimated at $ 2 million.

In discussions with the Department of Public Works we learned about $ 1 million could be saved on this project by purchasing a street 'Zamboni' that would allow DPW to complete the project. The machine is about $ 200,000 and it would be available for future uses and save money in the future. The additional $ 800,000 is for materials cost. Once the machine is purchased it will be added to the Rolling Stock Plan. Staff decided to highlight this as a CMMP because it explains a new DPU service and the cost savings that is driving the project.

10 Year Rolling Stock and Major Maintenance Plans

In past years the Rolling Stock Plan was prepared separately and presented to City Council apart from the CMMP project summary sheets. The dual process often presented a redundant, unclear budget process. Beginning last year we combined the Rolling Stock Plan into one document as a project summary sheet and a 'line item' in the budget spreadsheets. This year we have begun to develop a 10 year Rolling Stock Plan, however it is not fully developed so is not included in the overall 10 year CMMP budget figure.

This year we also began preparing a 10 year Facilities Maintenance plan to include in the CMMP. We have several years prepared and entered into this CMMP, however the full 10 year outlook is incomplete. We plan to continue developing this section of the CMMP with the anticipation it will be fully developed for next year.

The information herein is as of Friday March 19, 2020. Staff suggests City Council members email questions concerning the CMMP to the City Clerk who will then forward them to the Planning Department for resolution. Comments and concerns will either be incorporated into the CMMP or discussed among the departments and administration to determine the best course of action. The FY22 CMMP document will be presented to City Council for review again on April 13, 2021 and for approval in May, 2021.

ALTERNATIVES: N/A

FINANCIAL IMPLICATIONS: The final draft presented to City Council contains a total of $ 45,993,695 in funding for FY22. Projects propose using $ 10,950,136 from the General Fund.

LEGAL: N/A

STAFF RECOMMENDATION: Please provide staff with any comments, suggestions or ideas resulting from the presentation about the CMMP.

PROPOSED MOTION: N/A

CITY MANAGER COMMENTS: I would like to thank staff for taking a close look at these projects, and the Planning Department for their coordination efforts. The FY22 proposals focus on maintaining the city's existing infrastructure and systems, as do the following nine years' worth of projects. The majority of projects included were previously in the CMMP with the need remaining. Additionally, the utility projects are identified in associated Master Plans. Several PCR projects have been added because of the extended 10 year outlook. We will continue to look at how we can improve our planning efforts on capital improvements and will continue explore funding opportunities.

ATTACHMENTS:

- CMMP Project Summary Sheets (67 pages)
- Rolling Stock Plan
- Major Maintenance Plan
- Project Timeline (2022-2031)
- CMMP 10 Year Spreadsheet Scroll (document not included in packet hard copy large format print out provided to each council member)

FY22-31 CMMP

34.5 kV Submarine Cable Replacement

Electric

Project Description: The Electric Utility relies on the 34.5 kV sub-transmission system to deliver power to major Industrial loads and to the Town Substation. It uses two existing feeders: one crosses Iliuliuk Bay between East Point Road and Bay View Avenue and is near the end of its lifespan. Replacement is required.

Project Need: The submarine cable crossing is approximately 30 years old and was originally installed by the City line-crew. At the East Point Road entrance point, the cable is no longer buried completely and is easily approachable at low tide. Furthermore, large rocks have been moved by waves over the years are now sitting directly on the cable. While undersea cable has a durable outer jacketing and is more protected by its construction than a typical 15 kV cable, the current condition does represent a safety problem.

Development Plan & Status : Once a preliminary design is completed, the Section 10 permit package can be developed and submitted to the Army Corps of Engineers. The project assumes the Corps will determine that the cable project will qualify for a Nationwide permit, a streamlined version of an individual permit. The Corps will coordinate reviews with federal and state resource agencies. The agencies will consider project impacts to endangered species, impaired waterbodies, and fish habitats. The Corps typically issues a Nationwide Section 10 permit within three months of receiving a completed application. It is assumed that the new submarine cable will be installed in the same location and with the same connection points as the existing line. However, the capacity of this line should be upgraded during the engineering planning phase to better serve the current and future loads. Engineering coordination with the express feeder project will be required. Additionally, a cable condition assessment and inspection should occur very soon. The results of this inspection may affect the replacement schedule of the submarine cable.This project will be funded by the Electrical Proprietary Fund.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY23

Purchase/Construction: FY24

Cost Assumptions	
Engineering, Design, Const Admin	180,000
Other Professional Services	40,000
Construction Services	1,000,000
Machinery & Equipment	580,000
Subtotal	**1,800,000**
Contingency (set at 30%)	540,000
TOTAL	**2,340,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary	0	60,000	120,000	2,160,000	0	0	0	0	0	0	0	2,340,000
Total	0	60,000	120,000	2,160,000	0	0	0	0	0	0	0	2,340,000

FY22-31 CMMP

Electric Energy Storage System

Electric

Project Description: This project includes the final design, procurement, construction, integration and commissioning of one 1 MW energy storage system.

Project Need: Large equipment, such as ship to shore cranes, demand electrical supply loads that exceed the power supply system's intended loading profile. To smoothly provide a continuous, undiminished power supply under loads that can suddenly spike to 10 to 15% of the total load in seconds, the engines must constantly react to both the rapid increases and decreases of the system load. The engines' reactions decreases efficiency and create undue mechanical and electrical wear on the equipment and distribution system. Additionally, generation dispatch is often significantly affected due to the inability of the facilities to operate in the most efficient configuration possible. The proposed energy storage system system will arrest the rapid changes in the electrical load.

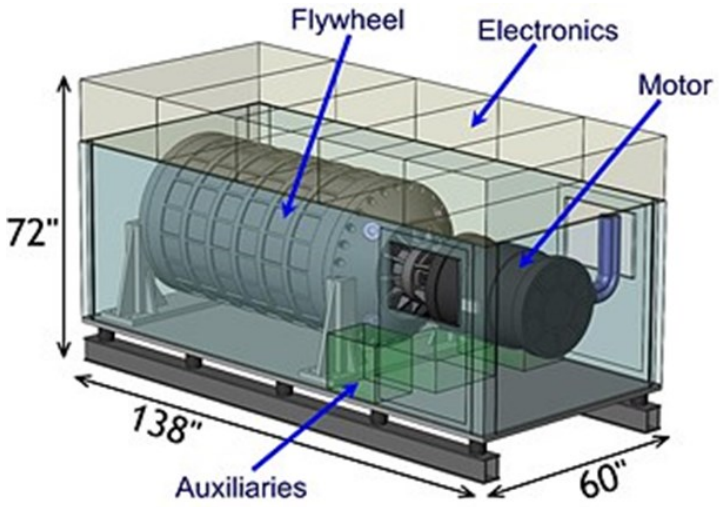
Development Plan & Status : Design will be accomplished in FY22. Installation of the energy storage system will be in FY23. Permitting is not anticipated for this project. This project will be funded by the Electrical Proprietary Fund.

Estimated Project & Purchase Timeline

Pre Design: FY19

Engineering/Design: FY22

Purchase/Construction: FY23



Cost Assumptions	
Other Professional Services	100,000
Engineering, Design, Construction	271,312.00
Construction Services	1,648,688.00
Machinery & Equipment	1,480,000.00
Subtotal	3,500,000.00
Contingency (20%)	700,000.00
Total Funding Request	4,200,000.00

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary	650,062	3,549,938	0	0	0	0	0	0	0	0	0	4,200,000
Total	650,062	3,549,938	0	0	0	0	0	0	0	0	0	4,200,000

FY22-31 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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary	0	0	0	0	0	0	234,000	0	0	0	0	234,000
Total	0	0	0	0	0	0	234,000	0	0	0	0	234,000

FY22-31 CMMP

Electrical Distribution Equipment Replacement

Electric

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.

Estimated Project & Purchase Timeline

Pre Design: NA

Engineering/Design: NA

Purchase/Construction: NA

FY22 Cost Assumptions	
Engineering, Design, Construction Admin	
Other Professional Services	
Construction Services	
Machinery & Equipment	$100,000
Subtotal	$100,000
Contingency (15%)	$15,000
Total Funding Request	$115,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary Fund	0	115,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,015,000
Total	0	115,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,015,000

FY22-31 CMMP

Electrical Intermediate Level Protection Installation

Electric

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

Project Description: This project adds protective devices at the major industrial services, including APL and Horizon and at radial taps in the 35 kV system. Vacuum circuit re-closers will be installed to properly coordinate clearing times in the event of a system disturbance. This enables the rest of the system to stay on line and only remove the faulted service or radial feeder. Each location will require one recloser with dedicated relay control. The recloser will also require provisions for communications back to the NPH via radio link or fiber optic cable when available. An updated short circuit study and new protective relay settings will be required in order to properly complete the system coordination work. Engineering and installation of reclosers at five locations are assumed for this project.

Project Need: The 35 kV system does not have any intermediate level protective devices that would minimize power disruptions to customers. The system is only protected from faults via two main 35 kV re-closers at the powerhouse, two main 35 kV town substation breakers, Alyeska Seafoods recloser, Westward Seafoods recloser, Captains Bay Road tap recloser, and four main 12 kV town substation breakers. Other than primary fusing on customer transformers, the system lacks any coordinated protection scheme. Some under frequency and under voltage load shed schemes are currently employed in the system but still are limited in their ability to isolate the system in smaller manageable pieces that would minimize disturbances to as few customers as possible. The lack of adequate coordinated protection schemes and apparatus has caused system wide outages during to a fault or disturbance event most often induced by a single large industrial customer.

Development Plan & Status : Areas where intermediate level protection apparatus should be incorporated are as follows: 1. Ballyhoo Tap 2. APL 3. Horizon 4. Submarine Crossing 5. Bridge Crossing

Cost Assumptions	
Engineering, Design, Construction Admin	$50,000
Other Professional Services	$75,000
Construction Services	$100,000
Machinery & Equipment	$275,000
Subtotal	$500,000
Contingency (30%)	$150,000
Total Funding Request	$650,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary	0	0	0	0	0	0	650,000	0	0	0	0	650,000
Total	0	0	0	0	0	0	650,000	0	0	0	0	650,000

FY22-31 CMMP

Generator Sets Rebuild

Electric

Project Description: This project consists of inspection, major maintenance, and rebuilds of the primary generator sets in the Unalaska Powerhouse. The maintenance schedule for the generator sets at the Unalaska Powerhouse is determined by engine hours. Engine inspections are also conducted by the manufacturer's mechanics to determine if engine rebuilds are needed or if they can be prolonged according to the hourly schedule.

Project Need: These generator set rebuilds are needed to maintain our equipment and the reliability of our electrical production. Our Certificate of Fitness from the Alaska Energy Authority states that we must keep all electrical generating equipment in good running condition.

Development Plan & Status : Due to the high cost of the engine rebuilds, it has been determined that the cost will be capitalized. Costs for the Generator Sets rebuilds can fluctuate greatly according to what is determined by the maintenance inspections. Costs for these rebuilds has been determined by the worst case scenario according to the history of the engines. Money that is not used for rebuilds by the end of the fiscal year, will be returned to the proprietary fund.

Estimated Project & Purchase Timeline

Pre Design: NA

Engineering/Design: NA

Purchase/Construction: NA

Cost Assumptions	
Repair & Maintenance	$2,115,385
Other Professional Services	
Construction Services	
Machinery & Equipment	
Subtotal	$2,115,385
Contingency (30%)	$634,615
Total Funding Request	$2,750,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary Fund	0	500,000	750,000	1,000,000	500,000	0	0	0	0	0	0	2,750,000
Total	0	500,000	750,000	1,000,000	500,000	0	0	0	0	0	0	2,750,000

FY22-31 CMMP

Installation of New 4 Way Switch at Town Substation

Electric

Project Description: This project adds a redundant switch for T12 at the substation. It will provide switching to allow transformer T-1 or T-2 to be taken out of service more readily and without causing an outage. The project also includes reworking of the 34.5 kV cable/conduit system within the substation to incorporate a new switch in this location. Switches with remote visibility and operation capabilities should be considered during the planning and engineering stages.

Project Need: The Electric Utility relies on the 34.5 kV sub-transmission system to deliver power to major industrial loads and to the Town Substation. Both feeders that end at Town Substation pass through a single 4 way switch, T12. All of Unalaska's 12 kV loads are fed from Town Substation. Switch T12 is the point where both 34.5 kV feeders can be joined to the substation and is a single point of failure for the sub-transmission system. The loss of this switch results in an outage for all facilities served by the Town Substation, including the school, clinic, and police station, and all residential loads on Unalaska Island.

Development Plan & Status : The Budget for this project was derived from the Electric Master Plan. A more accurate budget will be realized during the design phase of this project. Funding for this project will come from the Electric Proprietary Fund.

Estimated Project & Purchase Timeline

Pre Design: FY24

Engineering/Design: FY25

Purchase/Construction: FY26

Cost Assumptions	
Engineering, Design, Construction Admin	$50,000
Other Professional Services	$50,000
Construction Services	$150,000
Machinery & Equipment	$250,000
Subtotal	$500,000
Contingency (30%)	$150,000
Total Funding Request	$650,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary	0	0	0	0	650,000	0	0	0	0	0	0	650,000
Total	0	0	0	0	650,000	0	0	0	0	0	0	650,000

FY22-31 CMMP

Large Transformer Maintenance and Service

Electric

Project Description: A qualified industry service company who specializes in in the maintenance of utility electrical equipment will service all power transformers at the New Power House and Town Substation. Transformers will be assessed and serviced, as required. Transformer assessment includes insulation testing, dissolved gas analysis, sweep frequency response analysis and other tests. After testing is completed, a detailed report indicating condition and test results would be provided along with recommended service maintenance intervals per the relevant industry codes. It is also understood that components on the transformers are failing due to long term exposure to the corrosive environment due to the marine atmosphere. This will necessitate a more thorough repair in order to ensure long term reliability of the power transformers.

Project Need: The City owns four power transformers at the NPH and two at the Town Substation. Three of the NPH transformers are approximately 12 years old, with the fourth only 3 years old. The transformers at the Town Substation are original from the substation construction approximately 20 years ago. While these transformers should have many more years of service, proper and timely maintenance will help prolong their lives. Testing transformers over a period of many years also allows a utility to develop a baseline for each unit, which in turn can identify a developing problem that may not otherwise be discovered until the transformer fails. Replacement of failing monitoring devices is also critical as these are often the utility's first indication of a problem. The devices can also operate to quickly deenergize a transformer should a more serious condition become present. Without operating protective devices, the utility experiences a higher risk of significant damage if a transformer fails.

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

Estimated Project & Purchase Timeline

Pre Design: FY24

Engineering/Design: FY24

Purchase/Construction: FY24

Cost Assumptions	
Engineering, Design, Construction Admin	
Other Professional Services	$150,000
Construction Services	
Machinery & Equipment	
Subtotal	$150,000
Contingency (30%)	$45,000
Total Funding Request	$195,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary	0	0	0	195,000	0	0	0	0	0	0	0	195,000
Total	0	0	0	195,000	0	0	0	0	0	0	0	195,000

FY22-31 CMMP

Powerhouse Cooling Water Inlet Cleaning and Extension

Electric

Project Description: This project consists of cleaning the Powerhouse seawater cooling line from the intake to the Powerhouse, and extends the intake into deeper water.

Project Need: The powerhouse seawater cooling line needs to be cleaned out every five years due to marine growth inside the line. Increasing seawater temperatures and congestion from local construction require the cooling water intake to be extended to deeper, colder water. The Electrical Master Plan recommends a depth of 20 feet.

Development Plan & Status : The existing line runs inside a square concrete utilidoor that terminates with a concrete gate support structure. The gate was actually a strainer grate that could be raised and lowered from the support structure for maintenance and cleaning. Only the concrete guides for the gate remain of this system. It is suggested that the gate be moved to the end of a new 200 linear foot pipe extension out into Unalaska Bay. The pipe would be 30 inch diameter and terminate at a -20 foot MLLW. The gate would be constructed of 316 stainless steel and the pipe extension would be constructed of SDR 32.5 (.923 inch wall) HDPE pipe to eliminate the need for corrosion maintenance. The extension would be attached to the gate with a 45° elbow to swing the direction of the pipeline to the north, away from the fuel dock and in the shortest direction to deeper water.

Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY22

Purchase/Construction: FY23

Cost Assumptions	
Engineering, Design, Construction Admin	40,000
Other Professional Services	10,000
Construction Services	200,000
Machinery & Equipment	67,432
Subtotal	317,432
Contingency (30%)	95,230
Total Funding Request	412,662

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary	0	40,000	372,662	0	0	0	0	0	0	0	0	412,662
Total	0	40,000	372,662	0	0	0	0	0	0	0	0	412,662

FY22-31 CMMP

Town Substation SCADA Upgrade

Electric

Project Description: This project updates the SCADA at Town Substation with the following:

- Addition of a station PLC to replace the Real Time Automation Controller (RTAC) and collect SCADA data from all meters and relays. The PLC will calculate metering data.
- Addition of a small server which includes VM Ware for development and interfacing with existing substation equipment controls such that substation operation would not rely on the existing wireless communication system. The server will also run the power plant SCADA system Wonderware Intouch application so the HMI will display data from the power plant.
- Addition of a thin client (HMI) for local connection and system overview. • Adding port servers and network switches for engineering access to relays and meters to reliably collect event reports and settings.

Project Need: This project will improve the Town Substation efficiency and reliability. In the past, the Utility has known there have been many issues with the substation communications and moving data, data resolution, lost commands to breakers, and lag in reported data between the powerhouse and the Town Substation. The existing SEL Embedded PC and RTAC at the Town substation are first generation and the PC is running a standalone HMI application displaying the substation breakers and transformer data along with control of the breakers. These components will soon be at the end of their useful life. The upgrade will maintain safe operations, to monitor the condition and status of the entire utility system for accurate reporting.

Development Plan & Status : Funding for this project will come from the electric proprietary fund.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY22

Purchase/Construction: FY23

Cost Assumptions	
Engineering, Design, Construction Admin	
Other Professional Services	$90,000
Construction Services	
Machinery & Equipment	$10,000
Subtotal	$100,000
Contingency (30%)	$30,000
Total Funding Request	$130,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary Fund	0	0	130,000	0	0	0	0	0	0	0	0	130,000
Total	0	0	130,000	0	0	0	0	0	0	0	0	130,000

FY22-31 CMMP

Wartsila Modicon PLC Replacement

Electric

Project Description: The Wartsila Modicon PLC will be upgraded to the GE PACS RX3i controllers, which are the majority of the PLCs on the Utility's electrical SCADA system. Having all new PLCs will on the same platform will eliminate the need for new PLC software licenses and additional spare PLC hardware will no longer be necessary. When the PLCs are reprogrammed, all of the logic shall be unlocked and become the property of the Utility so that Utility personnel can make modifications. The SCADA system human machine interface (HMI) screens will be updated with the new screens and points for the generators. All of the drawings provided by Wartsila for the original controllers shall be updated with the new controllers and I/O modules. Wartsila did not provide AutoCAD files of the as-built drawings after the construction of the new power plant. All Wartsila drawings affecting the PLC's will be converted to AutoCAD.

Project Need: Schneider Electric's Modicon Quantum PLCs control the Wartsila generators (Units 10 and 11) at the NPH. The PLC models installed are no longer produced and difficult to find the same replacement parts. The Concept PLC software, used to program the Quantum PLCs, is not supported on newer operating systems and the logic in the PLC programs are proprietary and locked, which makes it very difficult to troubleshoot and modify.

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

Estimated Project & Purchase Timeline

Pre Design: FY

Engineering/Design: FY

Purchase/Construction: FY31

Cost Assumptions	
Engineering, Design, Construction Admin	$50,000
Other Professional Services	$100,000
Construction Services	
Machinery & Equipment	$200,000
Subtotal	$350,000
Contingency (30%)	$105,000
Total Funding Request	$455,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary	0	0	0	0	0	0	0	0	0	0	455,000	455,000
Total	0	0	0	0	0	0	0	0	0	0	455,000	455,000

FY22-31 CMMP

Makushin Geothermal Project

Electric

Project Description: This project is the City of Unalaska's estimated portion of reliability upgrades for the City electrical distribution system required to accept energy from the Makushin Geothermal Plant. It requires connecting multiple self-generating industrial customers to the current distribution system, installs more robust intermediate level protections, replaces the aging submarine cable at Illiuliuk Bay, upgrades numerous feeder connections and substations, and improvements to the current SCADA system and automated controls. Other funds will be set aside for legal and consulting fees associated with implementing the project.

Project Need: On August 31, 2020, the City entered into a Power Purchase Agreement (PPA) with OCCP. Section 11, Paragraph (c) of the PPA stipulates the City will be responsible for half of the next ten million dollars ($5,000,000) after the first two million dollar cost of reliability upgrades and distribution additions needed to supply energy from the geothermal plant to Unalaska residents and businesses, and the entirety of the interconnection costs beyond 12 million dollars, if required. This project represents a community partnership to bring renewable energy to Unalaska.

Development Plan & Status : The budget for this project was estimated from required funding commitments outlined in the Power Purchase Agreement. A more accurate budget will be determined upon completion of the Intertie Study currently in progress, and based on Study findings there may be a Phase II project to accomplish the required upgrades. Funding for this project will come from the General Fund.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY22

Purchase/Construction: FY23

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	2,860,000	2,860,000	0	0	0	0	0	0	0	0	5,720,000
Total	0	2,860,000	2,860,000	0	0	0	0	0	0	0	0	5,720,000

FY22-31 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 and/or the 1% Capital Projects Fund.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY22

Purchase/Construction: FY24

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	10,383,896	0	0	0	0	0	0	0	10,383,896
Total	0	0	0	10,383,896	0	0	0	0	0	0	0	10,383,896

FY22-31 CMMP

Fire Training Center

Fire

Project Description: Establish a live fire training facility in Unalaska. The structure will provide residential type response with a burn room, interior stairs leading to multiple stories, an interior fixed ladder, roof-mounted chop-out curbs, and a parapet roof guard with chain opening. The facility offers multiple training exercises including hose advancement, fire attack, search & rescue, rappelling, laddering, confined space maneuvers, and high-angle rescue operations. Currently there are no such facilities for training public or private sector organizations in Unalaska. This facility will also include a "dirty" classroom and a "clean" classroom that will allow personnel to stay out of the elements while they are instructed on the didactic portion of the lesson.

Project Need: Firefighter certification in Alaska requires a live fire training element to ensure experience fighting fires with significant heat and smoke in limited or zero visibility environments. Uncertified volunteers or paid firefighters can respond to fires, but live fire training and certification ensures that they are prepared and don't panic in real situations. No live fire facility exists in Unalaska, so firefighters travel off-island for training and certification at a cost of approximately $30,000 per person. The training takes 10-12 weeks and volunteers must take time off from their jobs and live away from their families in order to attend. The proposed training facility can be modified for use by the police department to practice active shooter or other use-of-force situations, and also be used as a confined space rescue training facility by other City departments or private industry, and as as a regional training center for other Aleutian Communities.

Development Plan & Status : Only a concept plan exists at the present time.. The proposed site is in the valley near the old chlorine building, or near the current public safety building pending action on the new proposed police station. The general fund will pay for the project. $12,000 was previously appropriated for a temporary training structure made from shipping containers. Cost quote for facility in 2018 dollars is $350,000 plus $85,000 shipping. Other costs include running electrical and water lines to the site and building construction costs for a total of $1,513,500.

Estimated Project & Purchase Timeline

Pre Design: FY19

Engineering/Design: FY23

Purchase/Construction: FY24

Cost Assumptions	
Other Professional Services	325,000
Engineering, Design, Construction Admin	0
Construction Services	439,231
Machinery & Equipment	400,000
Subtotal	1,164,231
Contingency (30%)	349,269
Total Funding Request	1,513,500

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	12,000	0	0	1,501,500	0	0	0	0	0	0	0	1,513,500
Total	12,000	0	0	1,501,500	0	0	0	0	0	0	0	1,513,500

FY22-31 CMMP

Lear Road Duplexes Kitchen/Bathroom Renovations

Housing

Project Description: Full renovation of both kitchens in units 69 & 73 and 81 & 85 (4 kitchens and 6 bathrooms total), replacing all cabinets, countertops, and flooring in both units of both duplexes. This will include some electrical, plumbing, fixtures, and parts as necessary.

Project Need: Labor and maintenance costs of the Lear Road Duplexes are increasing due to their age and condition. Over time, some cabinet doors have been replaced with plywood, and some hinges don't hold well because the screw holes have been stripped. In addition, many drawers in all units do not function properly due to worn out or missing drawer guide parts and finding replacement parts has become quite difficult. The countertops have loose laminate as well as chips and burns, which are difficult to repair and nearly impossible to match. The flooring was replaced in all of the units in 2000; however, these floor coverings now have tears, holes, and stains as a result of twenty years of use since that installation was completed.

If left in their current condition, employee tenants will have countertops, cabinets, and flooring which will be difficult to operate, keep clean and are potentially hazardous. Drawers and doors that will not open or slide properly could cause injury, cracked countertops can harbor dangerous bacteria, and irregular flooring surfaces are a trip hazard. These current issues will remain and new issues will arise as the units age, requiring maintenance costs to increase.

The City will gain serviceable components while reducing maintenance costs. These kitchen renovations will retain the property's value for years to come and increase desirability, which can be important for employee recruiting and retention.

Estimated Project & Purchase Timeline

Pre Design: NA

Engineering/Design: NA

Purchase/Construction: FY24

Lear Road Duplexes

Development Plan & Status : ECI Architecture prepared final plans in July 2018. Regan Engineering assembled the bid package in October 2018 with bids being let on March 8, 2019 due on April 9, 2019. Industrial Resources, Inc (IRI) was the selected contractor. Project scope was reduced from 4 units to 2 units because IRI's bid exceeded available funding.

Cost Assumptions

Engineering, Design, Const Admin		60,000
Other Professional Services		10,000
Construction Services		357,846
Machinery & Equipment		0
	Subtotal	427,846
Contingency (set at 30%)		128,354
	TOTAL	**556,200**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	400,000	0	0	156,200	0	0	0	0	0	0	0	556,200
Total	400,000	0	0	156,200	0	0	0	0	0	0	0	556,200

FY22-31 CMMP

Communications Infrastructure (Citywide)

Other

Project Description: Build a citywide communications infrastructure to connect all City departments, facilities and systems. Currently the Information Systems department networks all facilities using outdoor wireless point to point equipment. The technology is subject to bandwidth limitations, interference, weather, and significant annual maintenance. The GCI fiber optic project presents a rare opportunity to install subsurface conduit alongside the company's trenching project throughout the island. Every facility could be interconnected over the next two years installing the City's own underground cable network while the ground is open. This will result in a significant increase of network quality (bandwidth, decreased latency, etc.), reliability, and reduced security risks. This infrastructure would also alleviate hours of internal labor costs associated with maintaining over 100 existing wireless devices throughout Unalaska. The underground network would serve all City departments, as well as SCADA, VoIP (phone system), Security Camera Systems, Disaster Recovery, Email, GIS, and Network Applications (e.g Munis, Sleuth, RecTrac, Cartegraph, Meter Reading Systems, RMS, WatchGuard, etc.).

Project Need: All cities are increasingly reliant on network services that require larger amounts of bandwidth. Unalaska needs a viable path forward that will serve its growing demands (e.g. GIS, Security Cameras, Disaster Recovery, etc.), greater reliability (e.g. SCADA monitoring/control systems), and future scalability (services growth). Most local governments have had high-speed underground cable networks for decades, but Unalaska has repeatedly missed opportunities to install its own underground, high-speed network. The GCI proposal will trench miles of underground cabling and could be the last feasible opportunity to install our own network, This project will upgrade city infrastructure and provide significant cost savings for installation and future operations.

Development Plan & Status : This project will be funded by the General Fund. An additional $105,974 budgeted to the FY17 Fiber Optic Infrastructure Development Project from the Water and Wastewater proprietary funds will be moved to this project.

Estimated Project & Purchase Timeline

Pre Design: FY21

Engineering/Design: FY22

Purchase/Construction: FY22

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	947,013	947,013	0	0	0	0	0	0	0	0	1,894,026
Wastewater Proprietary Fund	52,987	0	0	0	0	0	0	0	0	0	0	52,987
Water Proprietary Fund	52,987	0	0	0	0	0	0	0	0	0	0	52,987
Total	105,974	947,013	947,013	0	0	0	0	0	0	0	0	2,000,000

FY22-31 CMMP

Aquatics Center Mezzanine and Office Space Expansion

PCR

Project Description: Expand the Aquatics Center Mezzanine and Office space to reach the walls over the loft area in the lobby. The Mezzanine consists of a multi-use open area, one office, a computer server room and janitors closet. The expansion will create about 500 sqft more usable space for use as offices. A bank of windows will improve natural light and air circulation in an otherwise very stuffy and hot room.

Project Need: PCR has added a new Coordinator and Head Lifeguard positions in 2020. The Aquatics Center lacks additional office space and the coordinator currently uses an office across the street at PCR. The head lifeguard uses the main admissions office downstairs during nonoperational hours. Programming has also increased with the new coordinator. The size of our upstairs facility constricts large events such as the Pumpkin Plunge and Youth Swim League's Award Ceremony. They become standing room only with people filtering down the stairs. Also, many requests for more free weights will take up even more space in the Mezzanine.

Development Plan & Status : In October 2018 the City Engineer, Information Systems and Maintenance did a walk through of the Mezzanine and Offices with the Aquatics Manager. A plan was discussed to achieve expansion. There are no physical obstacles to this expansion project.

Estimated Project & Purchase Timeline

Pre Design: FY

Engineering/Design: FY23

Purchase/Construction: FY24

Cost Assumptions	
Engineering, Design, Construction Admin	80,000
Other Professional Services	
Construction Services	635,385
Machinery & Equipment	
Subtotal	715,385
Contingency (30%)	214,616
Total Funding Request	930,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	80,000	850,000	0	0	0	0	0	930,000
Total	0	0	0	0	80,000	850,000	0	0	0	0	0	930,000

FY22-31 CMMP

Burma Road Chapel Kitchen Improvement

PCR

Project Description: Renovate Burma Road Chapel's kitchen into a commercial kitchen.

Project Need: PCR hosts numerous events in Burma Road Chapel. A commercial kitchen would greatly improve the quality and quantity of PCR's programming. The space is frequently rented for patrons to host parties, and a commercial kitchen would also improve their experience in that space.

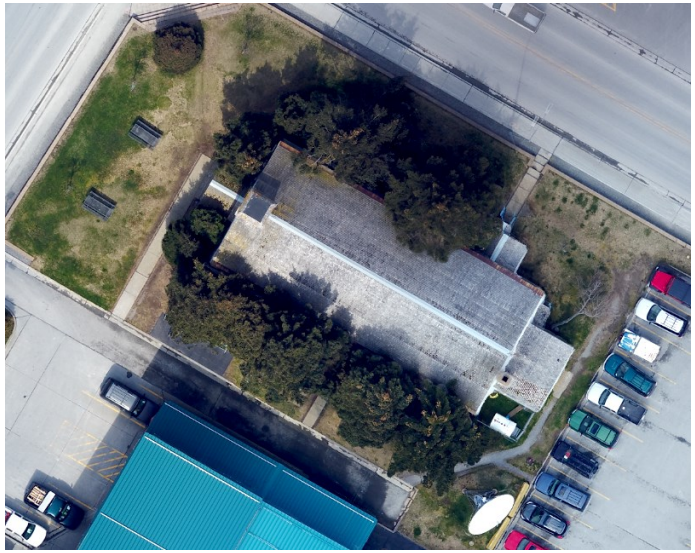
Development Plan & Status : Funding for this project will come from the General Fund.

Estimated Project & Purchase Timeline

Pre Design: FY24

Engineering/Design: FY24

Purchase/Construction: FY24



Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	150,000	0	0	0	0	0	0	0	0	150,000
Total	0	0	150,000	0	0	0	0	0	0	0	0	150,000

FY22-31 CMMP

Community Center Playground Replacement

PCR

Project Description: New playground equipment is necessary to replace the outdated playground equipment in front of the Community Center.

Project Need: The current play structures are too close to the railing that encloses the playground from the parking lot and sidewalk.

Development Plan & Status : Planning for the play structure's replacement will be done while the Operations Manager is at the National Parks and Recreation Association Conference in the fall of 2021. The project will be funded in FY23.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY22

Purchase/Construction: FY23

Cost Assumptions	
Other Professional Services	
Engineering, Design, Construction Admin	50,000
Construction Services	180,769
Machinery & Equipment	
Subtotal	230,769
Contingency (30%)	69,231
Total Funding Request	300,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	300,000	0	0	0	0	0	0	300,000
Total	0	0	0	0	300,000	0	0	0	0	0	0	300,000

Project Description: Upgrading technology in the Community Center.

Project Need: Advances in technology offer more ways for Unalaska to be better connected via internet access. The Community Center will become a place where residents and visitors will seek to connect to these services. The meeting and exercise spaces need upgrades to meet current technology to accommodate the increasing demand. Examples include: Projectors and display monitors in the conference room and Multipurpose Room along with substantial audio/visual improvements, building-wide WIFI access and technological improvements in the Teen Room.

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

FY22-31 CMMP

Community Center Technology Upgrades

PCR

Estimated Project & Purchase Timeline

Pre Design: FY25

Engineering/Design: FY25

Purchase/Construction: FY26

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	80,000	0	0	0	0	0	80,000
Total	0	0	0	0	0	80,000	0	0	0	0	0	80,000

FY22-31 CMMP

Community Park Replacement Playground

PCR

Project Description: Replacing the playground at Community Park.

Project Need: Playgrounds are designed to last between 20 and 30 years. The 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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	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

FY22-31 CMMP

Cybex Room Replacement

PCR

Project Description: Replacing all the cable machines in the Cybex Room at the Community Center.

Project Need: The equipment in the Cybex Room at the Community Center is as old as the building and is starting to show it's age. In many cases, Lifefitness no longer carries replacement parts. When something breaks now the maintenance department frequently has to create something from scratch to make the machine usable.

Development Plan & Status : nan

Estimated Project & Purchase Timeline

Pre Design: FY24

Engineering/Design: FY24

Purchase/Construction: FY24

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	75,000	0	0	0	0	0	0	0	75,000
Total	0	0	0	75,000	0	0	0	0	0	0	0	75,000

FY22-31 CMMP

Dog Park

PCR

Project Description: With the new park at UCSD, Tutiakoff Park could be an ideal place for a dog park. Many community members already bring their dogs to the park for recreation so including some obstacles for dogs to play and jump on would greatly benefit dog owners.

Project Need: There is no dog park on the island and it's a request PCR receives frequently.

Development Plan & Status : The park will be designed in FY25, with construction in FY26.

Estimated Project & Purchase Timeline

Pre Design: FY25

Engineering/Design: FY25

Purchase/Construction: FY26

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	200,000	0	0	0	0	0	200,000
Total	0	0	0	0	0	200,000	0	0	0	0	0	200,000

FY22-31 CMMP

Gymnasium Floor

PCR

Project Description: The gymnasium floor was installed when the building was built in 1996 and is lined for a full size basketball court, volleyball court and badminton court. A replacement floor would include lines for the same sports. The new floor would be made of a synthetic material so it would no longer need to be protected during special events.

Project Need: The current wooden floor recoated once a year to improve it's appearance and remove scratches. Over the past 20 years scratches have become more significant and the floor is beginning to show its age. A replacement floor will provide a better experience for patrons and greatly improve staff's ability to deliver quality programming. Special events held in the gym require PCR staff to roll out tarps to protect the wood floor. Afterward, they need to be cleaned and mopped which takes a lot of time. The planned replacement floor can be mopped and cared for much like the Multipurpose Room floor.

Development Plan & Status : During FY24 PCR staff will identify the flooring material that best meets the needs for the community. The estimated coast is $221,000 which means that $51,000 or 10% is planned to be spent in FY24 for design and scoping. These numbers are estimates and may change as FY24 approaches.

Estimated Project & Purchase Timeline

Pre Design: FY

Engineering/Design: FY24

Purchase/Construction: FY25

Cost Assumptions	
Engineering, Design, Const Admin	51,000
Other Professional Services	
Construction Services	158,231
Machinery & Equipment	
Subtotal	**209,231**
Contingency (set at 30%)	62,769
TOTAL	**272,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	51,000	221,000	0	0	0	0	0	0	272,000
Total	0	0	0	51,000	221,000	0	0	0	0	0	0	272,000

Project Description: Improving the drainage and infield of the softball field.

Project Need: The outfield no longer drains after a decent amount of rain and is nearly impossible to play softball on. We frequently cancel softball events because the field needs the first summer months to dry as much as possible. Even as late as August and September the field is very damp and unplayable.

Development Plan & Status : nan

FY22-31 CMMP

Kelty Field Improvement Project

PCR

Estimated Project & Purchase Timeline

Pre Design: FY23

Engineering/Design: FY23

Purchase/Construction: FY24

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	100,000	0	0	0	0	0	0	0	100,000
Total	0	0	0	100,000	0	0	0	0	0	0	0	100,000

FY22-31 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: FY29

Purchase/Construction: FY28

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	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

FY22-31 CMMP

Project Description: Turing 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. This also will be able to be utilized 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 : nan

Kiddie Pool/Splash Pad

PCR

Estimated Project & Purchase Timeline

Pre Design: FY29

Engineering/Design: FY29

Purchase/Construction: FY30

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	0	0	0	0	500,000	0	500,000
Total	0	0	0	0	0	0	0	0	0	500,000	0	500,000

FY22-31 CMMP

Multipurpose Facility

PCR

Project Description: Ounalashka 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.
- Raise Council awareness of the need to bring a facility that can offer more recreational activities such as hockey, tennis, indoor soccer, or an indoor playground.
- Provide a multipurpose covered facility.
- Serve as an emergency shelter for the island, which is very much needed.

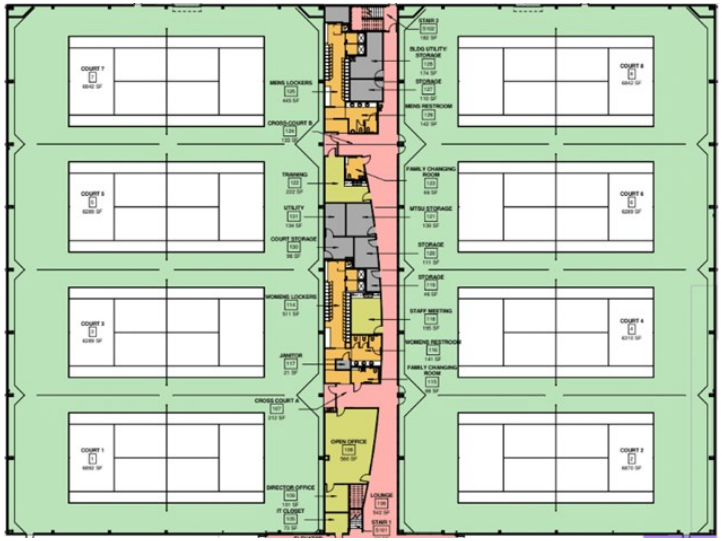
Development Plan & Status : PCR staff and the Advisory Board will gauge public interest in bringing a covered facility with two regulation tennis courts. The estimated cost is $5,629,000. $562,000 or 10% will be spent in FY26 for design and scoping. These numbers came from Lose Design. There is grant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



Cost Assumptions	
Engineering, Design, Const Admin	950,000
Other Professional Services	130,000
Construction Services	3,250,000
Machinery & Equipment	
Subtotal	**4,330,000**
Contingency (set at 30%)	1,299,000
TOTAL	**5,629,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	562,900	5,066,100	0	0	0	0	5,629,000
Total	0	0	0	0	0	562,900	5,066,100	0	0	0	0	5,629,000

FY22-31 CMMP

Park Above the Westward Plant

PCR

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

Project Need: Park development on west/southwest area of the city above Westward, build a park on city property. 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.

Estimated Project & Purchase Timeline

Pre Design: FY29

Engineering/Design: FY29

Purchase/Construction: FY30

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	0	0	0	0	3,200,000	0	3,200,000
Total	0	0	0	0	0	0	0	0	0	3,200,000	0	3,200,000

FY22-31 CMMP

Parks and Recreation Study

PCR

Project Description: Develop a comprehensive parks and recreation plan. We will hire an outside consulting firm to help us better assess the needs of our department for the next ten years and beyond.

Project Need: PCR's management team spent a significant amount of time during the past year developing a plan for future CMMP projects. Bringing in a consultant could help not only with prioritizing those projects, but also with programming, daily operations, and park maintenance.

Development Plan & Status : Funding will come from the General Fund. Studies do not require a contingency.

Estimated Project & Purchase Timeline

Pre Design: FY23

Engineering/Design: FY23

Purchase/Construction: FY23

Cost Assumptions

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

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	100,000	0	0	0	0	0	0	0	0	100,000
Total	0	0	100,000	0	0	0	0	0	0	0	0	100,000

FY22-31 CMMP

Pool Expansion

PCR

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

Project Need: Four years ago we purchased a Colorado Timing System so our 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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	0	0	0	0	2,000,000	0	2,000,000
Total	0	0	0	0	0	0	0	0	0	2,000,000	0	2,000,000

FY22-31 CMMP

Pump Track

PCR

Project Description: Installing a pump track next to Kelty Field.

Project Need: The current Skate Park is old and needs to be replaced. It's had many different paint jobs and rust has made certain areas dangerous. The current location of the Skate Park sits on real estate that can better serve the community, and discussions about various new facilities mention this property. If the site is designated for a new purpose, then the City needs to find a new location for wheeled recreation. Adding a pump track to Community Park would greatly increase what that park can offer and its use. The timing of this project depends on plans for the existing site's redevelopment.

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

Estimated Project & Purchase Timeline

Pre Design: FY24

Engineering/Design: FY24

Purchase/Construction: FY25

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	100,000	0	0	0	0	0	0	100,000
Total	0	0	0	0	100,000	0	0	0	0	0	0	100,000

FY22-31 CMMP

Rebar Restoration and Re-plastering

PCR

Project Description: Repairing and replacing the rebar that has rusted through the bottom of the pool. Then replacing the plaster in order to complete the project.

Project Need: A pool should be re-plastered every 10 years and even sooner with a salt water pool. Our pool has had the same plaster on it for over 20 years. Due to the life of our current plaster and Gunite corrosion the rebar underneath has become corroded and needs restoration.

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

Estimated Project & Purchase Timeline

Pre Design: FY25

Engineering/Design: FY25

Purchase/Construction: FY26

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	250,000	0	0	0	0	0	250,000
Total	0	0	0	0	0	250,000	0	0	0	0	0	250,000

FY22-31 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 heh pool to create an overfill spa. The only additions that would be required is a wall and a separate heating unit. The pool needs rebar restoration and re-plastering, building a wall in the warming pool during that project would be easily done. 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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	0	0	0	0	200,000	0	200,000
Total	0	0	0	0	0	0	0	0	0	200,000	0	200,000

FY22-31 CMMP

Unalaska Public Transportation Study

Planning

Project Description: In 2018 the Planning Department completed a study of the city's transportation and determined there is a need for public transit. The island population of about 4,000 residents increases to 11,000 during processing seasons. The study conducted two bus operation periods to simulate a transit system, surveys were available in multiple languages and the results indicated a high probability of ridership. This project seeks funding for a second study by professional transportation planners and engineers to conduct a more thorough analysis of how a public transportation system in Unalaska, funding sources, service areas and routes and capital equipment needed for the system.

Project Need: A large percentage of island residents and workers lack reliable and affordable transportation. Unalaska's harsh weather further hampers specific populations that would use the system including the elderly, youth, and processors, and the high cost of vehicle ownership and maintenance on the island is another consideration. The 2018 Transportation Study identified several transportation grants that could fund up to 80% of the cost annually. The project should also explore partnerships with the Q-Tribe, OC, and private island corporations to leverage investment and grant opportunities. Furthermore, the project will evaluate whether the system should be operated by a Transit Authority, a one of the major investors, city, tribal department, or otherwise.

Development Plan & Status : The FY25 expenditure is $200,000 from the General Fund. Studies do not require a contingency budget. Based on the study, the expectation is to identify grants available to further lower the cost, potentially up to 80% with the correct partners taking the wheel.

Estimated Project & Purchase Timeline

Pre Design: FY25

Engineering/Design: NA

Purchase/Construction: NA

Cost Assumptions

Other Professional Services		$200,000
Engineering, Design, Construction Admin		
Construction Services		
Machinery & Equipment		
	Subtotal	$200,000
Contingency (30%)		$0
	Total Funding Request	$200,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	200,000	0	0	0	0	0	0	200,000
Total	0	0	0	0	200,000	0	0	0	0	0	0	200,000

FY22-31 CMMP

Entrance Channel Dredging

Ports

Project Description: This project will remove material from the channel bar that crosses the entrance of lliuliuk Bay before vessels can enter Dutch Harbor. The dredging will increase the depth of water to accommodate the draft of large vessels transiting the channel and utilizing the Unalaska Marine Center and facilities inside of Dutch Harbor. The City will work with the US Army Corps of Engineers to help fund, design, construct, and maintain this project.This project already completed the biological assessments to gauge the impact of dredging to beachfronts inside of the harbor. The USACE has secured a congressional authorization to fund the dredging. This will allow deeper draft vessels to enter into Dutch Harbor including tankers, container ships and break-bulk vessels. The project will reduce delays of current vessels entering and departing the harbor due to storm surge and swell in the channel. The project estimates removal of 23,400 CY of material.

Project Need: The bar that crosses the entrance channel limits vessels entering the port by their draft rather than need for services in the community. Many vessels passing the community cannot enter our port due to water depth. Depending upon sea conditions the keel depth for vessels currently utilizing the port can be as little as one meter to the bottom according to the Alaska Marine Pilots. Storm conditions, especially northerly wind, undulates the sea height and makes the situation worse by causing vessels to pitch resulting in contact with the sea floor where the bar is located. Dredging the entrance channel to a sufficient depth and width will alleviate the safety concerns and allow more vessel/cargo traffic into the port, increasing Unalaska's economic utility.

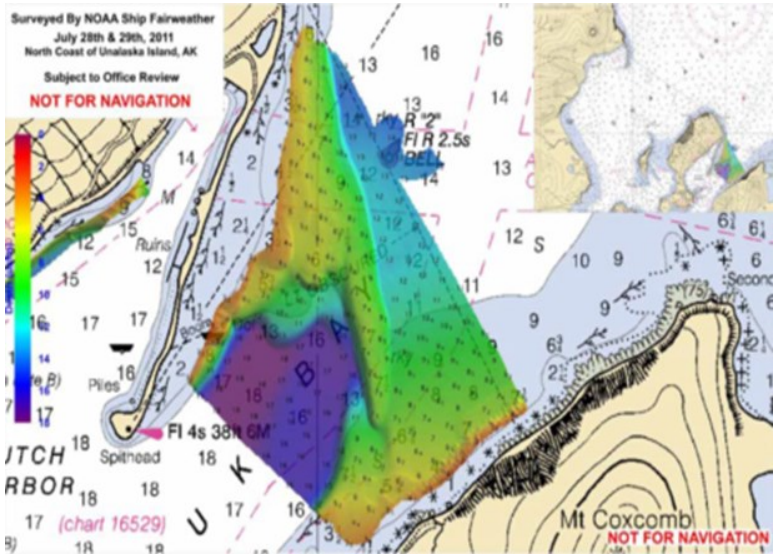
Development Plan & Status : The City conducted a Cost Benefit Analysis of the project to prove its benefit to the nation and that it is worthy of the USACE's and expenses. This project moved steadily forward to assimilate other key pieces, such as the biological assessment, impacts of dredging, and any impacts dredging may have on the inner harbor. In 2020 the US Congress authorized funding to the project with USACE and made available $27M. The City needs a match of just $9M, bringing the total cost to $38.456M. It will be completed in phases over FY22 and FY23.

Estimated Project & Purchase Timeline

Pre Design: FY19

Engineering/Design: FY20

Purchase/Construction: FY22



Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	2,500,000	4,494,500	4,494,500	0	0	0	0	0	0	0	0	11,489,000
Grant	0	13,483,500	13,483,500	0	0	0	0	0	0	0	0	26,967,000
Total	2,500,000	17,978,000	17,978,000	0	0	0	0	0	0	0	0	38,456,000

FY22-31 CMMP

Police Station PS19C

Public Safety

Project Description: Construct a new, state of the art Public Safety facility on the Skate Park site between the Clinic and City Hall.

Project Need: Presently, the Department of Public Safety (DPS) structure is outdated and presents safety and operational issues. It does not support all the needs of the department. Issues include:

- Inadequate staff support, office, interview and observation space; and no locker rooms for uniform changes, post-exposure decontamination, etc.
- Building access restrictions required for Police operations constrain volunteer firefighter use.
- Detainee entrance is a narrow passage to parking area that conflicts with emergency response. The undersized booking area is potentially hazardous for staff with unruly prisoners. The remote evidence drop-off/storage raises chain of custody and security issues.
- Crowded dispatch area provides little security from the public lobby, creating a safety and confidentiality issue.
- The fire apparatus garage houses EMS supplies, turnout gear, air compressor and gym. This creates potential contamination hazards from fumes.

Development Plan & Status : Architectural firm, Jensen Yorba Lott (JYL), was retained to conduct a functional assessment of the existing DPS facility with the following goals and objectives:

- Analyze comprehensive space needs for current/future program reqs
- Identify short-comings of the existing facility to meet those requirements
- Analyze building for building codes, conditions, and expansion opportunities
- Provide schematics for bldg expansion or new const that meets DPS program reqs and will serve the City of Unalaska for the next 50 years
- Identify potential sites suitable for consideration for a new DPS complex

Based on Council input and budget amendment, pre-design scope increased to bring new proposed Police Station and renovation of the existing building to a high level pre-design including geotech, schematic drawings, and cost estimates. Results of pre-design will support full design and construction.

Discovery Drilling finished last boring 9-3-19 bringing total drilled length to 500'. Preliminary findings show fill on top of geotextile fabric underlain with soft lakebed material. Bedrock was found between 11.5' deep near Airport Beach Road and 49.5' deep on the opposite (north) side of the Skate Park. The Final Geotech Report for the Skate Park site was received on 12-23-19. Corey Wall with JYW (formerly JYL) presented findings to Council via teleconference during the July 14, 2020 Council meeting wherein Council requested additional sites be evaluated.

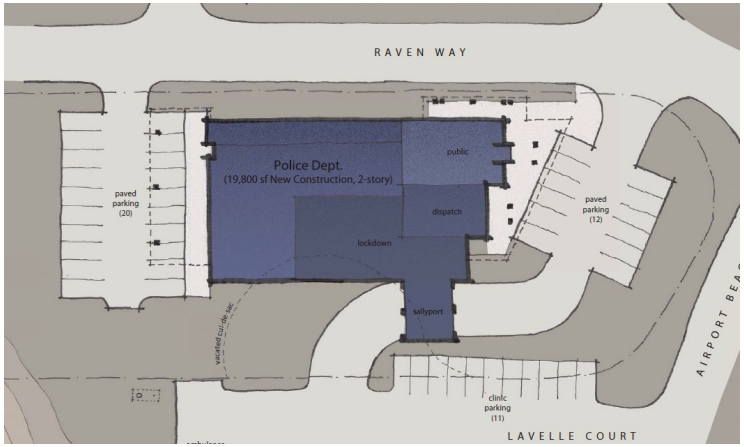
DPS Director King and DPW Director Cohenour evaluated 4 additional sites. Corey Wall reviewed findings at November 10, 2020 Council meeting and DPW Director lead discussion on 4 additional sites with input from Director King. No further direction from Council has been given.

Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY21

Purchase/Construction: FY23



Cost Assumptions

Engineering, Design, Const Admin	2,548,250
Other Professional Services	278,250
Construction Services	17,761,000
Machinery & Equipment	1,502,500
Subtotal	22,090,000
Contingency (Incl in Architect's Estimate)	0
TOTAL	**22,090,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	22,090,000	0	0	0	0	0	0	0	0	22,090,000
Total	0	0	22,090,000	0	0	0	0	0	0	0	0	22,090,000

FY22-31 CMMP

Burma Road Chapel Upgrades

Public Works

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 the future, possibly as soon as FY24.

Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY21

Purchase/Construction: 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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	110,000	0	0	479,000	0	0	0	0	0	0	0	589,000
Total	110,000	0	0	479,000	0	0	0	0	0	0	0	589,000

FY22-31 CMMP

Captains Bay Road & Utility Improvements

Public Works

Project Description: This major infrastructure improvement project constructs drainage, utilities, and pavement out Captains Bay Road to the entrance of Offshore Systems, Inc. (OSI). The work spans approximately 2 .5 miles of drainage improvements from Airport Beach Road to OSI, 2.5 miles of road realignment/paving/walkways/lighting from Airport Beach Road to OSI, and 1.3 miles of water/sewer/electric utility extensions from Westward to OSI.

Project Need: Captains Bay Road is a primary transportation route for Westward Seafoods, North Pacific Fuel, Northland Services, Offshore Systems Inc., and several small businesses as well as residential areas. The road facilitates high traffic for heavy vehicles used by the fishing and support industries vital to the community's economy. In 2011 the City held public meetings regarding the Road Improvement Master Plan. Residents and industry representatives discussed Captains Bay Road and hazards its high road crown creates. The crown is needed for adequate drainage. There was strong support for improvements to Captains Bay Road. Captains Bay Road also presents future growth opportunities for the community as identified in the City's Comprehensive Plan.

Development Plan & Status : This project is grant dependent. Drainage and paving estimates are based on the Ballyhoo Road Drainage & Electrical Upgrades Project. The utility expansion estimate is based on the Henry Swanson Drive Road & Utilities Project's utility construction costs, and other recent materials and equipment costs. These are rough estimates that will be refined as the project commencement approaches. As of April 10, 2020, the State did not award grant funds via the STIP / CTP. Additional grant opportunities will be sought out. A $4,000,000 Legislative request was submitted via CAPSIS in February 2021.Preliminary Estimate by HDL Engineering for total project costs = $53,700,000

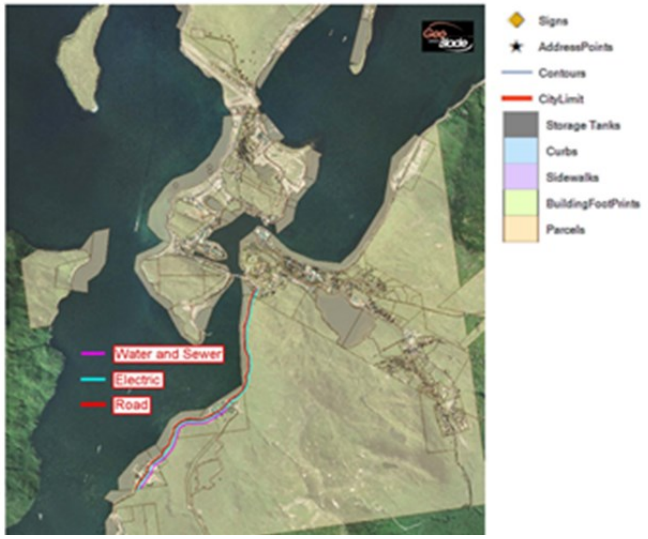
Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY21

Purchase/Construction: FY23

Captains Bay Road and Utilities



Cost Assumptions	
Engineering, Design, Construction Admin	$5,370,000
Other Professional Services	$300,000
Construction Services	$35,637,692
Machinery & Equipment	
Subtotal	$41,307,692
Contingency (30%)	$12,392,308
Total Funding Request	$53,700,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Electric Proprietary Fund	0	0	0	9,600,000	0	0	0	0	0	0	0	9,600,000
General Fund	2,000,000	0	0	0	0	9,600,000	9,600,000	0	0	0	0	21,200,000
Grant	0	4,000,000	0	0	0	0	0	0	0	0	0	4,000,000
Wastewater Proprietary Fund	0	0	0	0	9,600,000	0	0	0	0	0	0	9,600,000
Water Proprietary Fund	0	0	9,600,000	0	0	0	0	0	0	0	0	9,600,000
Total	2,000,000	4,000,000	9,600,000	9,600,000	9,600,000	9,600,000	9,600,000	0	0	0	0	54,000,000

FY22-31 CMMP

DPW Inventory Room - High Capacity Shelving

Public Works

Project Description: Rolling high capacity shelving in the DPW Supply Division will increase warehouse capacity by 50%. The carriage and rails system will enable shelves to move side to side and eliminate idle aisles.

Project Need: The DPW Supply Inventory Room is crowded and access to products, inventory, parts, and PPE is inefficient. Overflow is stored in the Warehouse or offsite which is subject to temperature variations and vermin contamination. The rolling bulk shelving will enable us to store double the existing capacity by eliminating static access isles.

Development Plan & Status : Price proposal includes materials and installation. Supplier will come here to install the units with some assistance from City staff.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY22

Purchase/Construction: FY22

Cost Assumptions

Engineering, Design, Const Admin		1,385
Other Professional Services		4,000
Construction Services		0
Machinery & Equipment		110,000
	Subtotal	115,385
Contingency (set at 30%)		34,615
	TOTAL	**150,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	150,000	0	0	0	0	0	0	0	0	0	150,000
Total	0	150,000	0	0	0	0	0	0	0	0	0	150,000

FY22-31 CMMP

DPW Paint Booth / Body Shop

Public Works

Project Description: Construct paint booth / body shop at DPW to facilitate appropriate repairs on City vehicles.

Project Need: Presently body work is accomplished inside the mechanic shop. Employees are exposed to toxic dust particles and hazardous paint spray. A stand alone bay or building is very much needed to protect the health and well-being of employees in the shop as well as in the rest of the building. Air gets circulated throughout the building exposing all employees and visitors to toxic paint fumes.

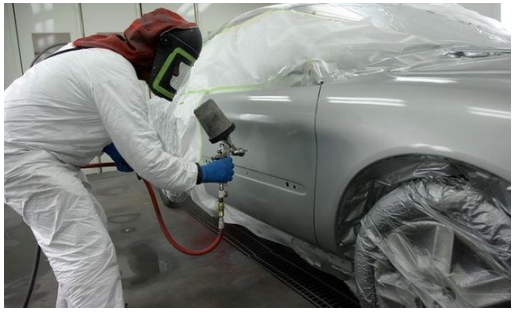
Development Plan & Status : General fund. Construct an add-on bay to the existing Wash Bay or construct the equipment storage building and include a body shop.

Estimated Project & Purchase Timeline

Pre Design: FY23

Engineering/Design: FY24

Purchase/Construction: FY25



Cost Assumptions

Engineering, Design, Const Admin		25,000
Other Professional Services		10,000
Construction Services		750,000
Machinery & Equipment		0
	Subtotal	785,000
Contingency (set at 30%)		235,500
	TOTAL	**1,020,500**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	25,000	995,500	0	0	0	0	0	0	1,020,500
Total	0	0	0	25,000	995,500	0	0	0	0	0	0	1,020,500

FY22-31 CMMP

Equipment Storage Building

Public Works

Project Description: Continuous exposure to the elements shortens the useable life of the City's rolling stock (dozers, dump trucks, graders, snow plows) and increases maintenance costs. Winter rain & slush build-up freeze on the equipment and creates excessive morning prep time clearing hubs, hydraulics, windshields, lights, and back-up horns prior to equipment use. This building will maintain an interior temperature at approximately 45F using a heated slab and keep equipment from freezing overnight and ready.

Project Need: A heated building will improve winter emergency response time and increase the capabilities of Public Works. The new storage building will extend the life of trucks, trailers, graders, snow plows, and snow blowers. The building will also decrease maintenance expense.

Development Plan & Status : Land is available on the Public Works site. A building permit and State Fire Marshall approval will need to be obtained. The project will require a new 1.5 inch water service and a new 6 inch sewer drain along with a new electrical service. Funding will come from the General Fund. The project is estimated at $200 per square feet. Building costs are then expected to be $1,545,830.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY23

Purchase/Construction: FY24

Cost Assumptions	
Engineering, Design, Const Admin	195,000
Other Professional Services	34,000
Construction Services	960,000
Machinery & Equipment	100
Subtotal	**1,189,100**
Contingency (set at 30%)	356,730
TOTAL	**1,545,830**
Less Other Funding Sources (Grants, etc.)	-
Total Funding Request $	**1,545,830**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	195,000	1,350,830	0	0	0	0	0	0	0	1,545,830
Total	0	0	195,000	1,350,830	0	0	0	0	0	0	0	1,545,830

FY22-31 CMMP

HVAC Controls Upgrades - 11 City Buildings

Public Works

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.

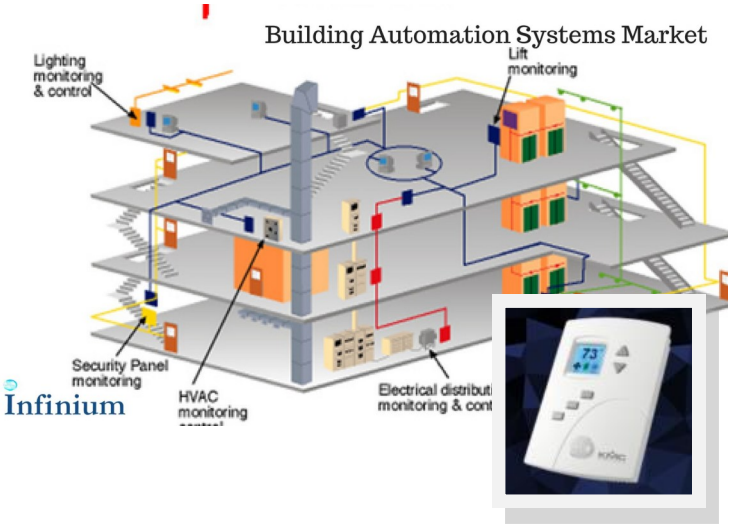
Development Plan & Status : In FY20, our HVAC controls contractor, Long Building Technologies, gave us an informal no cost quote. In FY22 we will work with Long to refine the scope and get a solid cost estimate. In FY22, Project implementation will occur.

Estimated Project & Purchase Timeline

Pre Design: FY23

Engineering/Design: FY23

Purchase/Construction: FY23



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		
	Total Funding Request	**433,827**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	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

FY22-31 CMMP

Pavement Preservation - Sealcoating

Public Works

Project Description: Preserve asphalt roads with the application of slurry coat, also known as sealcoat. This project would purchase the equipment and materials necessary to sealcoat our primary asphalt roads, such as Airport Beach Road.

Project Need: City roads were paved in 2016 and have not been coated or protected since. The State DOT and AASHTO highly recommend seal coat applications such as slurry seal, chip seal, or some other means to preserve asphalt roads. This maintenance will extend pavement life and protect a major financial investment.

Development Plan & Status : There has not been a paving contractor in Unalaska / Dutch Harbor since 2016. Funding will come from the General Fund.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY22

Purchase/Construction: FY22

Cost Assumptions	
Other Professional Services	
Engineering, Design, Construction Admin	15,000
General Supplies	554,231
Machinery & Equipment	200,000
Subtotal	769,231
Contingency (30%)	230,769
Total Funding Request	1,000,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	1,000,000	0	0	0	0	0	0	0	0	0	1,000,000
Total	0	1,000,000	0	0	0	0	0	0	0	0	0	1,000,000

FY22-31 CMMP

Public Trails System

Public Works

Project Description: Phase 1 Master Plan: This project formally establishes an Unalaska Public Trails System Master Plan by identifying and mapping existing network of sidewalks, trails, paths, former Jeep trails, 17B Easements, and gravel walkways. Consistent signage with community brand can also be designed with project wide plans & specifications.Phase 2 Construction: Provides consistent signage design, wayfinding, improves existing trails network, and establishes trail system maintenance protocols.

Project Need: Unalaska's existing array of walking and biking pathways are haphazard, unmarked, lack maintenance, have no amenities, and could be used better for community activity and attracting tourists.

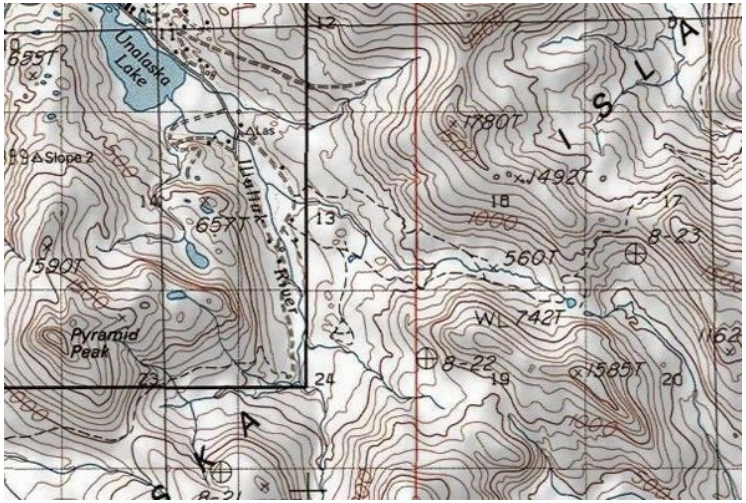
Development Plan & Status : The Planning Commission held a public meeting on September 19, 2019 in which they reviewed the City of Unalaska's existing Capital and Major Maintenance Plan projects, heard public testimony, and found that a Public Trails System is reasonable and in the public's interest. In conformance with the goals and objectives of the Comprehensive Plan, the Planning Commission recognized the need for a coordinated, well-defined trails system in Unalaska to support health, wellness, quality of life, and recreation and passed Resolution 2019-10. On November 12, 2019, the City Council was presented with the Planning Commission's Resolution 2019-10 and consented to including the Public Trails System Project on the FY21-25 CMMP for their consideration. Collaborative partnership with Ounalashka Corporation (OC) , the Qawalangin Tribe (Q-Tribe), and the Bureau of Land Management (BLM) will be key to a successful Public Trails System. Grant opportunities exist through the Alaska Safe Routes to School program; preliminary discussions with the Q-Tribe indicates potential cost sharing opportunities. Additional monies will come from the General Fund.

Estimated Project & Purchase Timeline

Pre Design: FY21

Engineering/Design: FY25

Purchase/Construction: FY



Cost Assumptions

Engineering, Design, Const Admin		100,000
Other Professional Services		0
Construction Services		0
Machinery & Equipment		0
	Subtotal	100,000
Contingency (set at 30%)		0
	TOTAL	**100,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	100,000	0	0	0	0	0	0	100,000
Total	0	0	0	0	100,000	0	0	0	0	0	0	100,000

FY22-31 CMMP

Underground Fuel Tank Removal / Replacement

Public Works

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.

Estimated Project & Purchase Timeline

Pre Design: FY28

Engineering/Design: FY28

Purchase/Construction: FY28

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	0	0	0	0	0	0	60,000	0	0	0	60,000
Total	0	0	0	0	0	0	0	60,000	0	0	0	60,000

FY22-31 CMMP

Generals Hill Water Booster Pump

Water

Project Description: Install a water booster station on Generals Hill, including underground plumbing, a small building, two pumps with controls, and plumbing to connect a fire engine.

Project Need: This project will increase water service pressure in the upper elevations of the hill. It will greatly reduce the risk of contamination of the water system due to backflow for all utility customers, and decrease the potential for customers to lose water service due to low pressure. Water pressure at the top of Generals Hill does not currently meet the minimum industry standard and in the event of a fire is insufficient to supply a fire engine.

Development Plan & Status : The City has already acquired the land. A contractor will be needed for construction.

Estimated Project & Purchase Timeline

Pre Design: FY18

Engineering/Design: FY19

Purchase/Construction: FY22

Cost Assumptions

Engineering & Architectural		---
Regan Design	$	114,900
Regan CA Services	$	50,000
Other Professional Services		---
Boreal Panel Fab & VFD	$	60,000
Survey Services	$	11,500
Construction Services	$	892,537
Telephone / Fax / TV	$	213
Advertising	$	600
Contingency	$	25,000
General Supplies	$	35,350
Land	$	25,900
TOTAL	$	1,216,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
General Fund	0	150,000	0	0	0	0	0	0	0	0	0	150,000
Water Proprietary Fund	1,066,000	0	0	0	0	0	0	0	0	0	0	1,066,000
Total	1,066,000	150,000	0	0	0	0	0	0	0	0	0	1,216,000

FY22-31 CMMP

LCD & UMC Dredging

Ports

Project Description: This project includes the engineering, permitting, and dredging at the faces of the Light Cargo Dock and the Unalaska Marine Center positions 17. It will complement other capital projects in the Port, namely the dredging of the entrance channel. Larger vessels will be able to enter into Dutch Harbor, and now we need to ensure the depth of the dock face coincides with the new traffic. The depths at the Unalaska Marine Center vary from -32 and -45 at MLLW. Dredging at the face of the Unalaska Marine Center would create a constant -45 from Positions 1-7. This will accommodate deeper draft vessels throughout the facility. The existing sheet pile is driven to approximately -58 . and dredging to -45 will not undermine the existing sheet pile. This project is primarily to accommodate large class vessels. Many of the vessels currently calling the Port must adjust ballast to cross the entrance channel and dock inside the harbor. This project timeline coincides with other dredging projects, including the Light Cargo Dock (LCD). Dredging in front of the Light Cargo Dock will also make this dock more accessible for current customers. Vessels using the Light Cargo Dock that draws more than 22'. must place another vessel between the dock face and their vessel in order to get enough water under the keel.

Project Need: The completion of this dredging will enhance current and future operations by creating usable industrial dock face that is designed for vessels in varying lengths and tonnage

Development Plan & Status : This dredging project supports the recently completed UMC position 3 and 4 Replacement project and the dredging of the entrance channel. The estimates for dredging of the Light Cargo Dock include 6000 CY of dredging and 3100 CY of shot rock slope protection. The dredging material will not be removed; however, it will be relocated on the sea floor. Dredging at UMC estimated to relocate 6000 CY of dredging material and will require approximately 1200 CY of shot rock slope protection.

Estimated Project & Purchase Timeline

Pre Design: FY19

Engineering/Design: FY23

Purchase/Construction: FY23

LIGHT CARGO DOCK, BARGE, TRAMPER

BARGE IS BEING USED AS A "SPACER" TO PROVIDE DEPTH FOR TRAMPER

Cost Assumptions	
Other Professional Services	
Engineering, Design, Construction Admin	109,650
Construction Services	1,932,000
Machinery & Equipment	
Subtotal	2,041,650
Contingency (30%)	612,495
Total Funding Request	2,654,145

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Ports Proprietary	109,650	0	2,544,495	0	0	0	0	0	0	0	0	2,654,145
Total	109,650	0	2,544,495	0	0	0	0	0	0	0	0	2,654,145

FY22-31 CMMP

Restroom Unalaska Marine Center

Ports

Project Description: This project is the purchase and installation of a new restroom for the Unalaska Marine Center. Water and Sewer service has been stubbed in at UMC for the purpose of installation of public restrooms for dock workers and passengers. City of Unalaska Code requires connecting to City services where available. These services are available at UMC

Project Need: For many years dock workers have used portable toilets. These outhouses require service from the Wastewater Treatment Staff. This project will provide a minimum of four toilets bring the City into compliance with City Code and EPA regulations. The facilities will improve working conditions for employees and visitors.

Development Plan & Status : This project involves a preexisting design and the restroom will tie into a pre-poured foundation that connects into existing utility services. The current cost assumption is from Public Works, for approximately $700 per square foot. This would be a from-scratch creation, a worst case scenario for funding. Ports is sourcing pre-designed and built options to lower the cost.

Estimated Project & Purchase Timeline

Pre Design: FY23

Engineering/Design: FY24

Purchase/Construction: FY25

Cost Assumptions	
Engineering, Design, Construction Admin	50,000.00
Other Professional Services	25,000.00
Construction Services	332,815.00
Machinery & Equipment	
Subtotal	407,815.00
Contingency (30%)	122,345.00
Total Funding Request	530,160.00

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Ports Proprietary Fund	0	0	0	50,000	480,160	0	0	0	0	0	0	530,160
Total	0	0	0	50,000	480,160	0	0	0	0	0	0	530,160

FY22-31 CMMP

Robert Storrs Small Boat Harbor Improvements (A & B Floats)

Ports

Project Description: This project will remove the existing A and B Floats at the Harbor and reconfigure the Harbor to accommodate a new float system, ADA gangway and create uplands for parking and a public restroom. It will also include a fire suppression system, electricity and year-round water supply to users and new piling.

Project Need: This project would include replacing the deteriorated floats and reconfiguring the floats and fingers of A and B Floats to include updated electrical systems, lighting, fire suppression, year-round utilities, and an ADA-required gangway. Based on current engineer concepts, the reconfiguration of A and B Floats will create at least 30 additional slips plus linear tie options. This should alleviate some of the 30 vessel waiting list. The reconfiguration will also allow for development of the uplands for required parking and a public restroom. The existing dock arrangement was carried over from a previous location. In order to accommodate the vessel demand at the Robert Storrs Harbor, a new configuration of the floats would allow for better use of the basin based on bathymetry and navigational approaches and also allow for additional vessel slips, with minimal fill and no dredging. It will add a significant number of slips for vessels 60' and under. This is an extension of the Robert Storrs Float Replacement Project. C Float is was completed in FY16. As the Float Replacement Project for Robert Storrs is being constructed in phases it was logical to separate the phases into separate project tracking purposes.

Development Plan & Status : The current estimates place this project at approximately 9.5 million dollars, based on engineers estimates for in kind replacement. We are eligible to apply for a 50% grant through the Alaska Department of Transportation and Public Facilities. 50% of the funding for this is estimated to come out of the Port Net Assets.

Estimated Project & Purchase Timeline

Pre Design: FY19

Engineering/Design: FY20

Purchase/Construction: FY22

Existing Condition (left)
Side Tie: 643 feet
Slips: 6 - 42 foot & 6 - 60 foot

Proposed Concept (right)
Side Tie: 218 feet
Slips: 22—26 foot, 13 - 32 foot, & 20 - 42 foot

Cost Assumptions	
Other Professional Services	
Engineering, Design, Construction Admin	650,000
Construction Services	7,000,000
Machinery & Equipment	
Subtotal	7,650,000
Contingency (30%)	2,295,000
Total Funding Request	9,945,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Grant	0	3,250,000	0	0	0	0	0	0	0	0	0	3,250,000
Ports Proprietary Fund	650,000	6,045,000	0	0	0	0	0	0	0	0	0	6,695,000
Total	650,000	9,295,000	0	0	0	0	0	0	0	0	0	9,945,000

FY22-31 CMMP

UMC Cruise Ship Terminal

Ports

Project Description: This project will design the Unalaska Marine Center Cruise ship terminal. This Terminal will provide an open sheet pile design dock with mooring dolphins to the South of Unalaska Marine Center Position 7.

Project Need: Cruise ship activity is on the rise in Unalaska and is proving to be a benefit to local commerce. The cruise ships do not have a place to reserve with certainty as the Unalaska Marine Center is designated for industrial cargo and fishing operations. We have been fortunate to be able to accommodate most of the cruise ship activity, but the passenger count and number of vessel call s is on the rise. With this in mind, a cruise ship terminal would allow for dedicated cruise ship berthing. It would eliminate passengers walking through and around cargo operations. During the off season for cruise ships this facility could be used for fishing vessel offloads. This would allow additional revenue opportunity and still bolster commerce through committed berthing for the cruise ship industry.

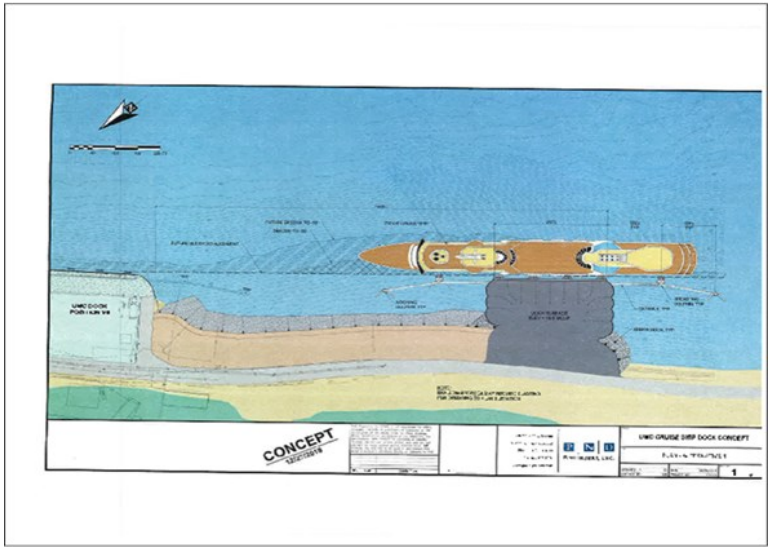
Development Plan & Status : ROM for geotechnical is about $300,000 and ROM for design is $600,000.

Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY24

Purchase/Construction: FY26



Cost Assumptions	
Other Professional Services	
Engineering, Design, Construction Admin	1,300,000
Construction Services	13,000,000
Machinery & Equipment	
Subtotal	14,300,000
Contingency (30%)	4,290,000
Total Funding Request	18,590,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Ports Proprietary Fund	390,000	0	0	910,000	0	17,290,000	0	0	0	0	0	18,590,000
Total	390,000	0	0	910,000	0	17,290,000	0	0	0	0	0	18,590,000

FY22-31 CMMP

Oil Separator and Lift Station Replacement

Solid Waste

Project Description: This project replaces and relocates the oil separator in the underground vault in the Baler Building, upgrades lift station 10.5, replaces associated piping, and upgrades electrical wiring.

Project Need: The Baler Building was constructed in 1997 and included an underground concrete vault to collect water and other liquids. The vault serves as a sump and houses an oil separator. The oil separator has worn and failed. Its underground location makes it exceptionally difficult and unsafe to service and maintain. Drain lines to the sump and oil separator require daily cleaning. The discharge line has failed requiring a temporary sump pump with bypass hose to empty the sump. The oil separator stopped functioning altogether and allows oil (petroleum) to enter the wastewater stream going to the Waste Water Treatment Plant. Petroleum at the WWTP disrupts the chemical and biological processes necessary to properly handle sewage.All catch basins and drainage piping in the Baler building, including the underground sump with oil separator, drain into Lift Station 10.5 located outside of the Baler Building near the Leachate Tank (big white tank at Landfill). Lift Station 10.5 pushes all sewage and leachate from the Landfill to the Waste Water Treatment Plant via a 4" HDPE force main. The lift station pumps are aging and worn requiring replacement. Controls and wiring for lift Station 10.5 are exposed to the weather and need an enclosure placed over them. The existing check valve in the 8" HDPE pipe connecting the Baler floor drain to the lift station has failed and needs to be replaced. High rain events overwhelm the lift station and water backs up past the check valve causing flooding in the Baler. Scope of work includes relocating the backflow preventer vault out of the roadway, replacement of the check valve, installation of a clean-out, concrete pad, and bollards for protection from snow plows.

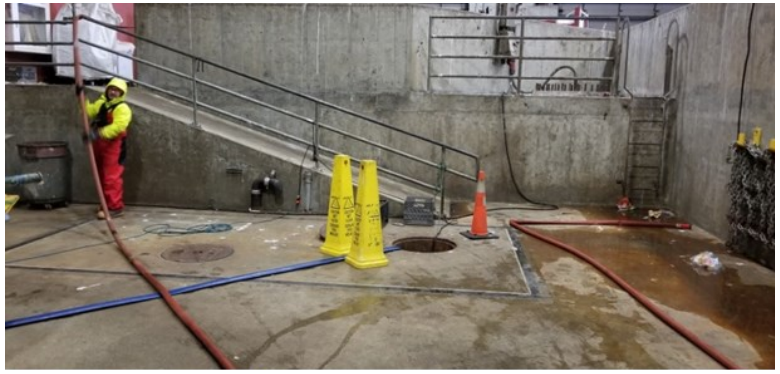
Development Plan & Status : These needs were identified several months ago and Landfill staff utilized time consuming work-arounds to keep the plant operational while repairs were sought out. In reviewing all the related issues of pumps, drains, wiring, and oil separator, it was deemed serious enough to seek a broader solution instead of individual temporary fixes. The money for this project will come from the Solid Waste Proprietary Fund.

Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY20

Purchase/Construction: FY22



Cost Assumptions	
Engineering, Design, Const Admin	100,000
Other Professional Services	-
Construction Services	647,000
Machinery & Equipment	-
Subtotal	**747,000**
Contingency (set at 30%)	224,100
TOTAL	**971,100**
Less Other Funding Sources (Grants, etc.)	-
Total Funding Request $	**971,100**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Solid Waste Proprietary Fund	0	971,100	0	0	0	0	0	0	0	0	0	971,100
Total	0	971,100	0	0	0	0	0	0	0	0	0	971,100

FY22-31 CMMP

Solid Waste Gasifier

Solid Waste

Project Description: The pre-design, design, and construction of a Gasifier to incinerate garbage.

Project Need: The Landfill cells are reaching capacity. Unalaska has about five years to come up with alternatives for the City's garbage or must find a new place to build new cells.Thermal processing of solid waste is the future of Landfills. Gasification is a process that uses a feedstock, often municipal or industrial waste, for a thermo chemical conversion of waste in high heat. This is done in a low oxygen environment and causes material breakdown at the molecular level. Once the molecular breakdown occurs, the gasification process recombines them to form a syngas, a gas similar to natural gas.

Development Plan & Status : Combination of grant funds and Landfill proprietary funds. Future funding is to be determined at a later date.

Estimated Project & Purchase Timeline

Pre Design: FY21

Engineering/Design: FY22

Purchase/Construction: FY25

Cost Assumptions

Engineering, Design, Const Admin	800,000
Other Professional Services	100,000
Construction Services	3,000,000
Machinery & Equipment	2,500,000
Subtotal	6,400,000
Contingency (set at 30%)	1,920,000
TOTAL	**8,320,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Solid Waste Proprietary Fund	100,000	200,000	400,000	0	7,620,000	0	0	0	0	0	0	8,320,000
Total	100,000	200,000	400,000	0	7,620,000	0	0	0	0	0	0	8,320,000

FY22-31 CMMP

Scum Decant Tank Wet Well Improvements

Wastewater

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.

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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Wastewater Proprietary Fund	0	0	0	0	0	0	50,000	145,500	0	0	0	195,500
Total	0	0	0	0	0	0	50,000	145,500	0	0	0	195,500

FY22-31 CMMP

Wastewater Clarifier Baffling Improvements

Wastewater

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.

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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Wastewater Proprietary Fund	0	0	0	0	0	0	0	0	50,000	275,000	0	325,000
Total	0	0	0	0	0	0	0	0	50,000	275,000	0	325,000

FY22-31 CMMP

Wastewater Sludge Pump Check Valve Replacement

Wastewater

Project Description: This project would include purchase and installation of back-pressure valves to replace the existing check valves in the system.

Project Need: When the sludge flocculator starts, the discharge valve positions are opened and closed several times, and plant staff verifies that the valve position is closed upon operation. If the valves are left open, the contents of the solids storage tank can drain to the influent pump station. The WWTP staff are careful to set the valves to the appropriate position. Several options were evaluated by the City's WWTP design consultant and it was determined that replacing the sludge pump check valves with backpressure valves was the best option. This would prevent the sludge from getting past the Penn Valley sludge pumps and exiting the plant if the valve is accidently left open. Proposed for FY25 – FY26

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.

Estimated Project & Purchase Timeline

Pre Design: FY24

Engineering/Design: FY25

Purchase/Construction: FY26

Cost Assumptions	
Engineering, Design, Construction Admin	$20,000
Other Professional Services	
Construction Services	$30,000
Machinery & Equipment	$20,000
Subtotal	$70,000
Contingency (30%)	$21,000
Total Funding Request	$91,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Wastewater Proprietary Fund	0	0	0	0	20,000	71,000	0	0	0	0	0	91,000
Total	0	0	0	0	20,000	71,000	0	0	0	0	0	91,000

FY22-31 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 is 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: FY28

Engineering/Design: FY28

Purchase/Construction: FY29

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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	0	0	0	0	0	0	0	396,500	0	0	0	396,500
Total	0	0	0	0	0	0	0	396,500	0	0	0	396,500

FY22-31 CMMP

CT Tank Interior Maintenance and Painting

Water

Project Description: This project will paint and perform other maintenance to the inside of the Pyramid CT Tank. Work will be performed in two phases. The coatings on the ceiling are deteriorating at a rate to meet its predicted life span of 20-25 years. Small sections of coatings are beginning to drop into the water in the tank. The floor has problems with pitting that needs to be dealt with immediately. In some locations the pitting is believed to exceed ½ of the thickness of the steel plate. If left in its current condition, the tank floor will likely be leaking in 2-3 years. In 5-7 years, large sections of the ceiling coatings will be dropping into the water and could plug the tank discharge holes or break up and travel through the distribution system and into customers' services. Shortly after, structural damage will begin to occur. This tank can be kept in good reasonable service for many years to come, with the proper maintenance including painting, for a fraction of the cost of a new tank. Adding a new CT Tank may however, be the best option to provide for the ability to maintain this existing CT Tank

Project Need: The Pyramid CT Tank was originally constructed in 1993. The tank has been drained every 3-5 years for cleaning and/or inspection over the past 10 years. It takes from 200-300 man hours over a 7-10 day period to drain, clean and inspect the tank. The tank has never been completely de-watered, because it is a lengthy process, tank configuration and the equipment available. Historically, water tanks in this area have exteriors re-coated every 15-25 years. In 2008 the CT Tank roof was painted with a finish coat after a failed attempt to replace the wind damaged foam insulation in 2000. In 2004 anodes were added to help slow the rate of corrosion to the inside of the tank. Total cost for maintenance has averaged about $25,000.00-$30,000.00 per year.

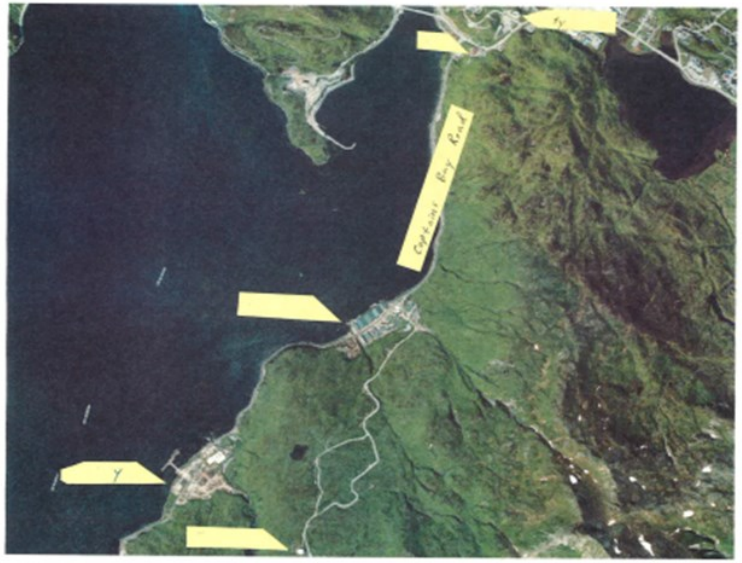
Development Plan & Status : Building a second CT Tank was the designed and intended path to take when the original CT Tank was built. It provides the redundancy required in the treatment process to maintain Filtration Avoidance status. It also directly addresses the operational function issues associated with maintaining each tank

Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY20

Purchase/Construction: FY22



Cost Assumptions	
Engineering, Design, Const Admin	75,000
Other Professional Services	-
Construction Services	735,000
Machinery & Equipment	-
Subtotal	**810,000**
Contingency (set at 30%)	243,000
TOTAL	**1,053,000**
Less Other Funding Sources (Grants, etc.)	-
Total Funding Request $	**1,053,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	100,000	953,000	0	0	0	0	0	0	0	0	0	1,053,000
Total	100,000	953,000	0	0	0	0	0	0	0	0	0	1,053,000

FY22-31 CMMP

East Point Crossing Water Line Inspection

Water

Project Description: This project consists of the inspection of the water line crossing from East Point Road to West Broadway Avenue. This underwater pipe crossing to Amaknak Island at East Point is a 12-inch ductile iron pipe installed in 1977. HDR recommends conducting a "See Snake" system inspection for this water line due to its invasive approach to pipe inspections. PICA Corporation's See Snake system is the only insertion type tool that HDR was able to identify that offers pipe wall condition assessment capability in a 12-inch pipe application. See Snake is a device that uses an electromagnetic Remote Field Technology to measure wall thickness and detect internal and external flaws as it moves through a pipe. See Snake can also detect and locate external stress on a pipe due to soil movement, bridging, inadequate support, rippling, or denting.

Project Need: The East Point Crossing pipe is one of only two water system connections to Amaknak Island. Should this pipe ever fail, the consequences could be a shutdown of all water service to Amaknak Island until the break can be located and isolated. This would be especially devastating during processing season. Flow of water to Amaknak Island could be restricted for a period of at least several weeks while waiting for the pipe to be repaired by divers or a new pipe installed. If the break occurs under the Alyeska Seafoods facility the washout from the flow could cause structural damage to buildings. Given the criticality, age, and seawater exposure of this pipe, action is recommended to perform condition assessment and/or replace the pipe.

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 will come from the Water proprietary Fund.

Estimated Project & Purchase Timeline

Pre Design: FY23

Engineering/Design: FY23

Purchase/Construction: FY23

Cost Assumptions	
Engineering, Design, Construction Admin	
Other Professional Services	$50,000
Construction Services	$75,000
Machinery & Equipment	
Subtotal	$125,000
Contingency (30%)	$37,500
Total Funding Request	$162,500

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	0	0	162,500	0	0	0	0	0	0	0	0	162,500
Total	0	0	162,500	0	0	0	0	0	0	0	0	162,500

FY22-31 CMMP

Icy Lake Capacity Increase & Snow Basin Diversion

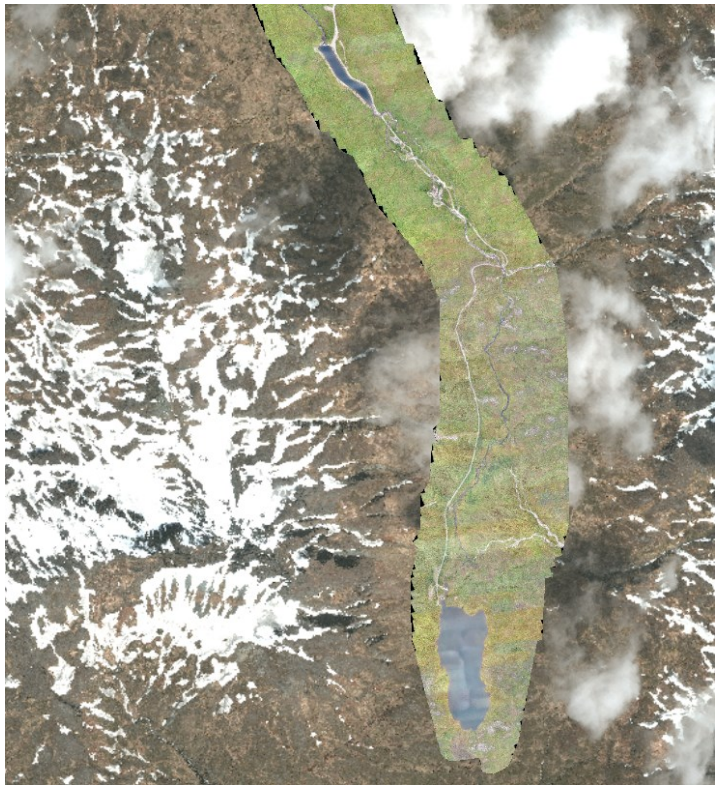
Water

Estimated Project & Purchase Timeline

Pre Design: FY31

Engineering/Design:

Purchase/Construction:



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 thesouth end of the lake.
- Additional grading and riprap would be required for a larger spillway apron at the northdam.
- 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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	0	0	0	0	0	0	0	0	0	0	2,860,000	2,860,000
Total	0	0	0	0	0	0	0	0	0	0	2,860,000	2,860,000

FY22-31 CMMP

Icy Lake Hydrographic Survey

Water

Project Description: This project will survey Icy Lake reservoir consisting of a topographic survey of the shoreline and shallow areas around the lake. A water resources engineer will determine the precise stage-storage (Depth and Volume) relationship and curve would analyze the hydrographic and topographic survey results. The stage-storage curve should allow operators to quickly determine the exact volume of available water at various water surface elevations. The stage-storage relationship could also be added to the utility SCADA system so the SCADA system automatically calculates and displays the lake's volume of available water in real-time.

Project Need: Icy Lake provides impounded raw water storage for Unalaska and is used during periods of low water and/or significant demand. The Lake is impounded behind a sheet pile dam at its outlet. Water from the lake is released using a remote controlled valve at the sheet pile dam to fill the Icy Creek Reservoir. The exact volume of the lake is unknown but estimates range from between 52 MG and 61 MG, with a volume of 57 MG at the spillway elevation. Without accurate bathymetry of the lake bottom, the Utility must estimate stage-storage of the lake in order to know how much available water remains in the lake at any given water surface elevation. If the Utility's estimate of remaining water is overly conservative, the result could be premature water rationing, impacting utility customers, especially the fish processors. If the Utility overestimates the remaining water, then it could run out of water faster than expected. An accurate hydrographic survey of the lake would enable precise determinations of the available water and more effectively manage water supplies.

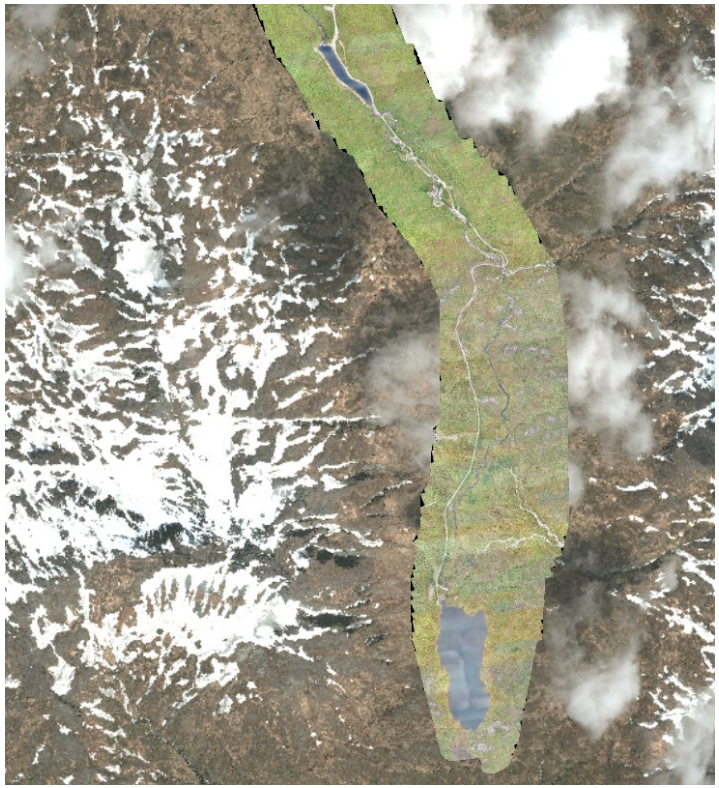
Development Plan & Status : The budget for this project was estimated from the Water Master Plan. A more accurate budget will be determined during the design phase of the project. The funding for this project will come from the Proprietary Fund.

Estimated Project & Purchase Timeline

Pre Design: FY24

Engineering/Design: FY24

Purchase/Construction: FY24



Cost Assumptions		
	Engineering, Design, Construction Admin	$5,000
	Other Professional Services	$41,000
	Construction Services	
	Machinery & Equipment	$10,000
	Subtotal	$56,000
	Contingency (30%)	$16,800
	Total Funding Request	$72,800

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	0	0	0	72,800	0	0	0	0	0	0	0	72,800
Total	0	0	0	72,800	0	0	0	0	0	0	0	72,800

FY22-31 CMMP

Icy Lake Road Reconstruction

Water

Project Description: Phase 1 Site Survey: This project will hire a land surveyor to conduct a site survey of the Icy Creek Valley from the existing Icy Creek Reservoir to Icy Lake & Dam. A civil engineer will be hired to put together plans and specifications to design a service road crossing over Icy Creek near Icy Creek Reservoir and going along the west side of Icy Creek. Permitting and land acquisition initiation are also part of this phase.Phase 2 Construction: This project will construct a new service road over Icy Creek going along the west side of Icy Creek joining the existing road. The existing road will also be improved.

Project Need: The existing road from the reservoir follows the Icy Creek and requires driving in the creek to cross it in 5 locations. The road frequently requires repairs due to wash outs and storm event damage. Driving in the creek to Icy Lake & Dam and back again causes siltation which creates water quality issues at the Pyramid Water Treatment Plant.

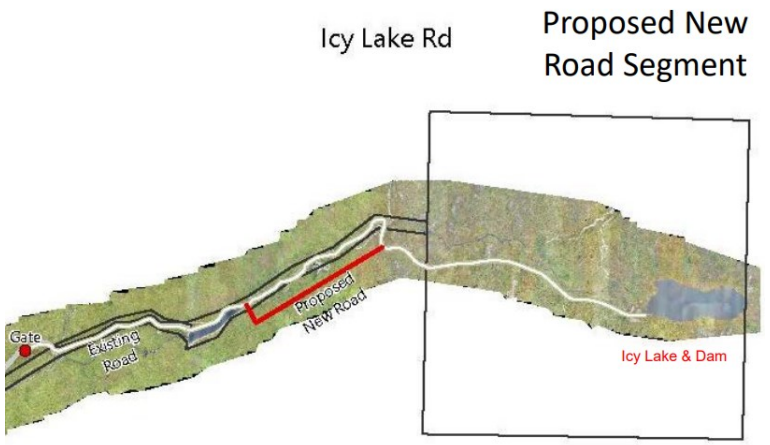
Development Plan & Status : This project has been discussed for several years. A site survey and engineered plans will determine the best course of a new road segment. Monies will come from the Water Proprietary Fund. Grant opportunities will be sought out once plans and specs are in place.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY22

Purchase/Construction: FY23



Cost Assumptions

Engineering, Design, Const Admin	100,000
Other Professional Services	0
Construction Services	900,000
Machinery & Equipment	0
Subtotal	1,000,000
Contingency (set at 30%)	300,000
TOTAL	**1,300,000**
Total Funding Request	**1,300,000**

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	0	100,000	1,200,000	0	0	0	0	0	0	0	0	1,300,000
Total	0	100,000	1,200,000	0	0	0	0	0	0	0	0	1,300,000

FY22-31 CMMP

Installation of Meter and Booster Pump at Agnes Beach PRV Station

Water

Project Description: This recommended 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 shutdown 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	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	0	0	0	0	0	0	0	0	70,000	320,000	0	390,000
Total	0	0	0	0	0	0	0	0	70,000	320,000	0	390,000

FY22-31 CMMP

Mainline and Service Valve Maintenance Program

Water

Project Description: This project will include the location, repair and as-needed replacement of water Service Valves (SV's) and Mainline Valves (MLV'S) which are used to control water throughout the City's Water Distribution (WD) system.

Project Need: There are about 600 SV's and at least 240 MLV's in the City of Unalaska. These valves range in size from ¾" through 24". The valves are used to isolate structures, services and mainlines from the rest of the Water Distribution system due to leaks, to facilitate repairs, service installations, customer requests, mainline flushing and for non-payment. Although specifics vary, the general recommendation among SV and MLV manufacturers is that valves should be maintained once a year by turning (exercising) them. Since valves are usually buried out of sight underground and they require a certain amount of manpower to maintain, it is common for them to be done so with a frequency which is much less than recommended or none at all. Unfortunately this results in a percentage of valves that become inaccessible or inoperable as the years pass. Currently, we operate valves on an as-needed basis. This means that while some valves have been operated several times since they were installed, others have been exercised infrequently or not at all since they were installed over 30 years ago. We want to ensure that our valves remain both accessible and operable so that routine operations are feasible and so that emergency situations such as house flooding and road washouts due to broken lines can be addressed as quickly as possible. Based off our experience and those of other water operators from around Alaska, the consensus is that valves should at a minimum be operated once every few years to ensure they remain accessible and operational. We want to maintain one-fifth of the valves on an annually rotating basis so that the valves are accessed and exercised in an ongoing five year cycle. To accomplish this we are planning to work with a contractor. The contractor will coordinate the necessary utility locates, provide traffic control, ensure that the valves are accessible as well as perform excavating, repairs and replacements as needed. The Water Division would provide the water portion of the utility locates, assist with locating the valves, operate the valves, assist with some of the repairs as well as obtain data from each valve and valve location for our records. Any necessary materials would be sourced from either the City or the contractor depending on what is needed and the availability.

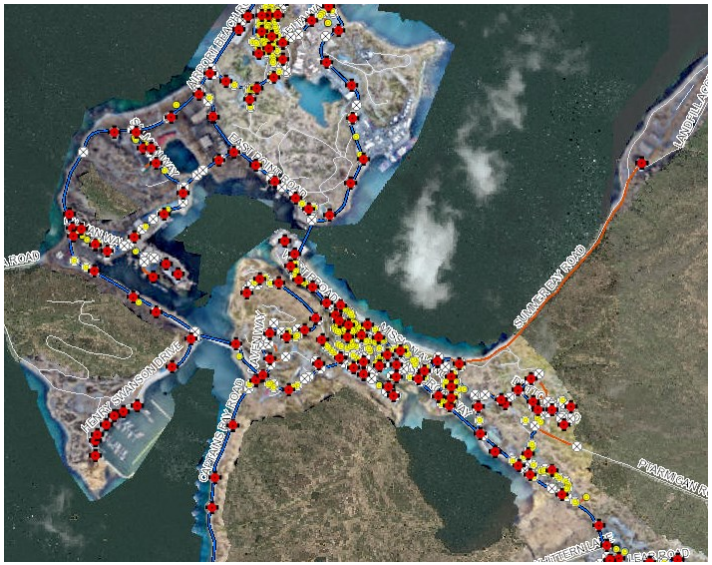
Development Plan & Status : The contractor will be required to submit an Excavation Permit with the associated Traffic Control Plan and utility locates per City of Unalaska policy. Cost & Financing Data: An annual ROM for this project would be $100,000 with a 10% contingency. We intend to resubmit this CMMP on an annually recurring basis so that we have adequate, ongoing funds with which to maintain the City's water valves.

Estimated Project & Purchase Timeline

Pre Design: FY22

Engineering/Design: FY22

Purchase/Construction: FY22



Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000
Total	0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000

FY22-31 CMMP

Pyramid Water Storage Tank

Water

Project Description: This project will construct a second 2.6 million gallon Chlorine Contact Tank (CT Tank) next to the existing CT Tank. It will provide much needed clear water storage and enable maintenance to be done on the interior of either tank regardless of process seasons or weather. The project will require the installation of approximately 200 ft. of 16" DI water main, 200 ft. of 8" DI drain line, and 100 ft. each of 1" sample line and control wiring

Project Need: Additional storage provided by this tank will help to meet many of the issues mentioned in the 2004 Water Master Plan. Even in the Water Distribution System's current configuration, this new tank will provide an additional 960,000 gallons of the additional 4 MG of finished water storage recommended in the Master Plan. When planned future development is completed on Captain's Bay Road, over 2.2 MG of water storage will be available at the maximum Pyramid Water Treatment Plant capacity of 9 MGD. The additional storage will provide a much needed buffer, allowing time to troubleshoot and repair problems in the event of an equipment failure or system malfunction. It will reduce the likelihood of water shortages and/or outages during the Pollock Processing seasons. Additional benefits include: Reduce service interruption, boil water notices, and risk of system contamination during maintenance. Allow routine maintenance to be done on the interior or exterior of either tank during any season, prolonging the life of these tanks. Expand and upgrade both the water treatment and distribution systems, using the full 9 MGD design capacity of the new water treatment plant will be possible. Improve the flow characteristics of the new Pyramid Water Treatment Plant. Plant operators will be able to allow the tanks to absorb the high and low flows, maintaining a more stabilized treatment process and allowing the new Ultra Violate treatment process to operate more efficiently.

Development Plan & Status : A "Certificate to Construct" and a "Certificate to Operate" are required from ADEC, obtained through application by the designing engineer.

Estimated Project & Purchase Timeline

Pre Design: FY14

Engineering/Design: FY23

Purchase/Construction: FY24

Engineering, Design, Const Admin	647,000
Other Professional Services	-
Construction Services	6,379,879
Machinery & Equipment	-
Subtotal	**7,026,879**
Contingency (set at 30%)	2,108,064
TOTAL	**9,134,943**
Less Other Funding Sources (Grants, etc.)	-

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	625,000	0	603,750	7,906,193	0	0	0	0	0	0	0	9,134,943
Total	625,000	0	603,750	7,906,193	0	0	0	0	0	0	0	9,134,943

FY22-31 CMMP

Pyramid Water Treatment Plant Chlorine Upgrade

Water

Project Description: This project in the Pyramid Water Treatment Plant (PWTP) 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. We have experienced issues with their product. If we continue to have issues with Chlorine Gas from them or they quit carrying Chlorine Gas altogether, the remaining vendor is twice the price due to the extra cost involved in shipping the Chlorine Gas to the coast. In addition, 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 (ADEC) approval. A contractor will be needed for construction. A ROM for this project would be $500,000 – $750,000. This number could be reduced if the existing crane, Chlorine Gas Bay, etc. in the PWTP can be utilized with the new system. The existing PWTP Chlorine Gas Bay is believed to be of sufficient size to house the new Sodium Hypochlorite equipment. However, a heated area for salt storage will be required. It would be most efficient to have the salt storage area as part of the existing PWTP structure. Doing so would require an addition to the current building.

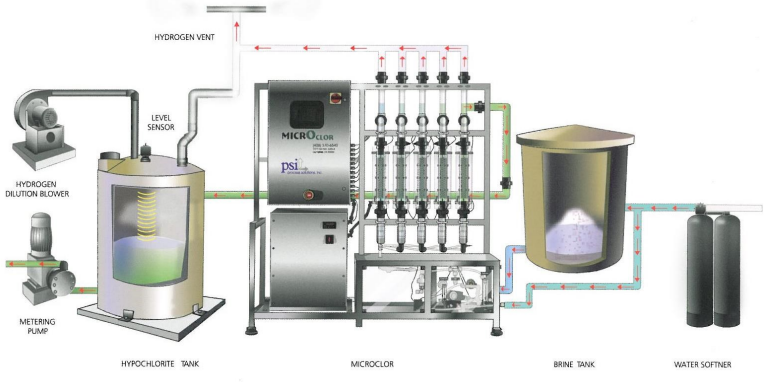
Estimated Project & Purchase Timeline

Pre Design: FY21

Engineering/Design: FY21

Purchase/Construction: FY22

Hypochlorite Generator



Cost Assumptions		
	Other Professional Services	$ 25,000.00
	Engineering, Design, Construction Admin	$ 80,000.00
	Construction Services	$ 250,000.00
	Machinery & Equipment	$ 400,000.00
	Subtotal	$ 755,000.00
	Contingency (30%)	$ 226,500.00
	Total Funding Request	$ 981,500.00

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	100,000	881,500	0	0	0	0	0	0	0	0	0	981,500
Total	100,000	881,500	0	0	0	0	0	0	0	0	0	981,500

FY22-31 CMMP

Sediment Traps Between Icy Lake and Icy Creek Reservoir

Water

Project Description: This project consists of constructing one or more sediment traps in Icy Creek upstream of the reservoir. The sediment trap system should essentially be a series of deep, wide step pools with rock check dams along the creek that decrease the flow velocity and allow rocks and sediment to settle out. The sediment traps should also create a location for rocks and sediment to accumulate that would be easier for heavy equipment to access, easier to clean out, and potentially allow the reservoir and Pyramid WTP to remain in service while the upstream sediment traps are being cleaned. Although the sediment traps will not eliminate shutdown of the Pyramid WTP due to turbidity spikes during high flow events, it could reduce the occurrence and duration of shutdowns.

Project Need: Large amounts of rock and sediment move downstream along Icy Creek during high flow events. The rocks accumulate at the inlet end of the Icy Creek Reservoir as seen in Figure 30 and heavier sediment accumulates behind the dam. The rocks and sediment reduce the capacity of the reservoir. Draining of the reservoir and removal of rocks and sediment is a challenging exercise that is required periodically and also requires a lengthy shutdown of the Pyramid WTP. Turbidity issues due to suspended fine-grained sediments during high flow events also regularly cause shutdown of the Pyramid Water Treatment Plant.

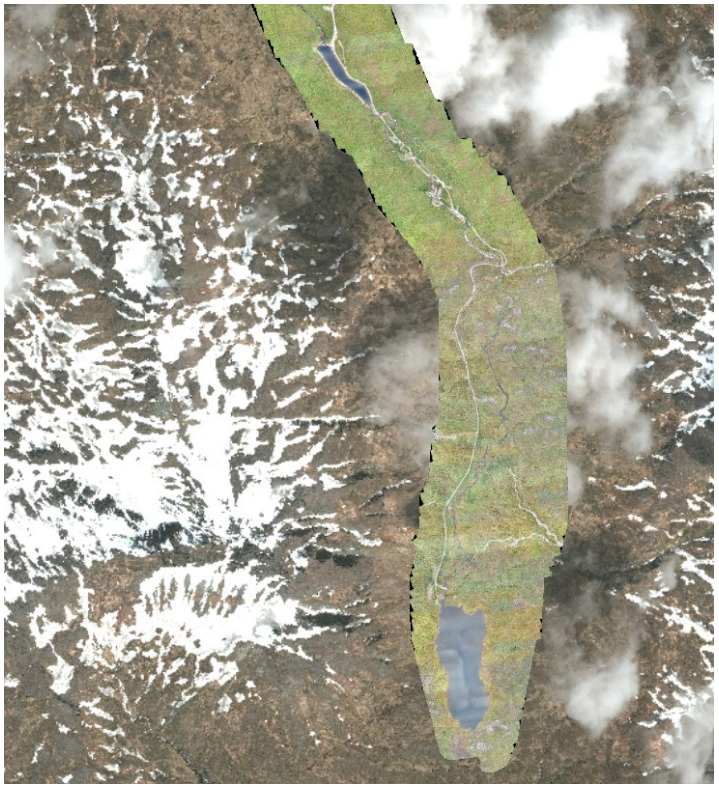
Development Plan & Status : The budget for this project was estimated from the Water Master Plan. A more accurate budget will be determined during the design phase of the project. Funding for this Project will come from the Water Proprietary Fund.

Estimated Project & Purchase Timeline

Pre Design: FY26

Engineering/Design: FY26

Purchase/Construction: FY27



Cost Assumptions	
Engineering, Design, Construction Admin	$50,000
Other Professional Services	$50,000
Construction Services	$400,000
Machinery & Equipment	
Subtotal	$500,000
Contingency (30%)	$150,000
Total Funding Request	$650,000

Source	Appropriated	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Water Proprietary Fund	0	0	0	0	0	650,000	0	0	0	0	0	650,000
Total	0	0	0	0	0	650,000	0	0	0	0	0	650,000

FY22 Rolling Stock Replacement Plan Summary

By Department

As of 03-18-21

Vehicle #	Dept	Primary Driver	Description	Year	Life Cycle	Replace Date	Replace With	Miles	Hours	Description of New Vehicle	Transfer Old Vehicle To	FY22 $$$	Est or Quote
UPD9826	DPS	Chief	4x4 Explorer	2012	7	2019	**New**	26,331		Replaced in FY21 waiting for new to arrive	Finance	-	n/a
CH7413	City Hall	Finance	Red 4x4 Ford Explorer	2003	15	2018	UPD9826	86,063		Ford Expedition - Police Chief	City Hall - Floater	-	n/a
CH3710	City Hall	Floater	Blue Ford Ranger PU	1996	15	2011	CH7413	49,694		Red Ford Explorer	Surplus Sale	-	n/a
UPD5563	DPS	Patrol	4x4 Ford Expedition	2014	7	2021	**New**	52,315		4x4 Chevy Tahoe	PCR Floater	$ 62,187	Quote
PW1992	DPW	Roads	4x2 F250 Flatbed	1995	15	2010	**New**	53,097		4x4, Chevy/GMC Rollback Car Hauler	Surplus Sale	$ 128,249	Quote
PW6372	DPW	Roads	4x4 F350 Flatbed w/plow	2003	15	2018	**New**	43,291		4x4 Chevy/GMC 1-Ton	Surplus Sale	$ 60,000	Est
DT7	DPW	Roads	Volvo 12 CY Dump Truck	1996	18	2014	**New**		17,714	Sterling 12 CY Dump Truck	Surplus Sale	$ 148,941	Quote
HS1	DPW	Roads	Hydro-Seeder/Mulcher	1997	20	2017	DNR		8,892	DNR - Hire Locally	Surplus Sale	-	n/a
L1	DPW	Roads	IT28G CAT Loader	2001	18	2019	**New**		13,652	CAT 930 Loader	Landfill	$ 250,246	Quote
L4	DPU	Landfill	IT28B CAT Loader	1991	18	2009	L1		19,889	IT28G CAT Loader	Surplus Sale	-	n/a
LF1	DPU	Landfill	L20B-P Volvo Loader	2007	18	2025	**New**	-	16,038	908 CAT Loader	Surplus Sale	$ 131,552	Quote
E1214	DPU	Line Crew	Ford F800 Crane Truck	1986	20	2006	**New**	-	1,377	2 TON Chevy/GMC Crane Truck	Surplus Sale	$ 241,962	Quote
New	Ports	Ports	New to Fleet	-	-	-	**New**	-		920 CAT Loader w/forks, 2 buckets,broom	n/a	$ 217,269	Quote
New	DPU	WW	New to Fleet	-	-	-	**New**	-		100 KVA Backup Genset - Lift Stations	n/a	$ 77,369	Quote
GS13	DPU	W	Kato Genset	1994	20	2014	**New**	-	8,277	100 KVA Backup Genset - Water Wells	Surplus Sale	$ 77,369	Quote
										TOTAL		**$ 1,395,145**	

By Fund

GENERAL FUND	$ 649,623
ELECTRIC FUND	$ 241,962
WATER FUND	$ 77,369
WASTEWATER FUND	$ 77,369
SOLID WASTE FUND	$ 131,552
PORTS / HARBOR FUND	$ 217,269
TOTAL	**$ 1,395,145**

FY22-31 Rolling Stock and Equipment Replacement Plan

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Facilities Maintenance	FM	Line Crew	LC	Clerks	C	Animal Control Officer	ACO
Supply	S	Powerhouse	P	Planning	Plan	PCR	PCR
Vehicle/Equipment Maintenance	VM	Solid Waste/Landfill	LDF	Finance	Fin	Ports	Port
Director	DIR	Floater	Float	Information Systems	IS	Do Not Replace	DNR
Deputy Director	DEP						

As of 03-18-21

Vehicle #	Class	Primary User	Make	Function / Description	Year	Life Cycle	Replace Date	FY22 Replace Priority	Miles / Hours	Replace With	Transfer To	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
CH3710	GP	CH-Float	Ford	4x4, Blue Ranger w/ Topper	1996	15	2011	1	49,694	CH7413	Surplus Sale			$0									
E1214	HE	P	Ford	Crane Truck	1986	20	2006	2	1,377	New	Surplus Sale			$241,962									
HS1	EQ	Roads	Hydro-Mulcher	Hydro-seeder on wheels	1997	15	2012	3	8,892	DNR	Surplus Sale			$0									
L4	HE	LDF	CAT	Loader, IT28	1991	18	2009	4	19,889	L1	Surplus Sale			$0									
PW1992	GP	Roads	Ford	F250 Flatbed 2WD Q-Tribe	1995	15	2010	5	53,097	New	Surplus Sale			$128,249									
DT7	HE	Roads	Autocar/Volvo	Dump Truck	1996	18	2014	6	17,714	New	Surplus Sale			$148,941									
GS13	EQ	W	Kato/John Deeere	Gen Set - Well House #1 by DPW	2000	20	2020	7	8,277	New	Surplus Sale			$77,369									
PW6372	GP	Roads	Ford	F350 Flatbed plow-salt spreader	2008	15	2023	8	43,291	New	Surplus Sale			$60,000	Estimate								
LF1	HE	LDF	Volvo	Loader	2007	18	2025	9	16,038	New	Surplus Sale			$131,552									
CH7413	GP	Fin	Ford	4x4 Explorer - Red	2003	15	2018	10	86,063	UPD9826	CH Floater			$0									
L1	HE	Roads	CAT	Loader, IT28	2001	18	2019	11	13,652	New	LDF			$250,246									
UPD5563	GP	DPS	Ford	4x4 Expedition	2014	7	2021	12	52,315	New	PCR/Float			$62,188									
n/a	EQ	WW	Generac	Trailer mounted genset 100KVA	Proposed New to Fleet			15	-					$77,369									
n/a	EQ	Ports	CAT	920 Loader w/attachments	Proposed New to Fleet			19	-					$217,269									
PUMP5780	EQ	UFD	Darley	Fire Pump - Trailer Mounted	1992	15	2007	20	n/a						$50,000								
GW1	EQ	VM	Miller	Welder	1992	15	2007	21	n/a						$25,000								
FL2	EQ	VM	Hyster	Forklift - Electric	1988	20	2008	22	10,119						$80,000								
CL1	EQ	W	John Deere	Generator	1988	20	2008	23	7,020						$65,000								
BD5	HE	Roads	CAT	D7 Dozer	1989	20	2009	24	8,716												$400,000		
PW5954	HE	S	Ford	F700 4x4, Flatbed	1996	15	2011	25	7,143							$65,000							
AC2	EQ	Roads	Ingersol Rand	Air Compressor - Portable	1994	20	2014	26	201								$20,000						
PW8586	GP	VM	Ford	F350 4x4 Flatbed w/air compress	1996	15	2011	27	23,979	E5629	Surplus Sale				$60,000								
AC3	EQ	LC	Ingersol Rand	Air Compressor - Portable	1994	20	2014	28	579										$20,000				
TR2	EQ	FM	Trailmax	Trailer (Scissor lift)	1992	20	2012	29	7,817							$50,000							
AC4	EQ	VM	Ingersol Rand	Air Compressor	1994	20	2014	30	9,705							$35,000							
S3	EQ	Roads	Swenson	Gravel / Salt Spreader 12ft	1997	15	2012	31	8,450						$15,000								
BH1	HE	LC	Case	590 Backhoe 4X4	2000	15	2015	32	3,792									$250,000					
DT6	HE	Roads	GMC/Volvo	Dump Truck	1994	18	2012	33	12,547									$150,000					
UFD0592	HE	UFD	Pierce	Fire Engine #2	1997	18	2015	34	8,500											$1,000,000			
ST1	HE	Roads	Autocar/Volvo	Sand Truck Dump Truck	1998	15	2013	35	1,995								$160,000						
WT2	HE	Roads	Autocar/Volvo	Water Tanker 4000 gal	1996	20	2016	36	8,221									$100,000					
BH2	HE	WW	Case	580 Backhoe 4X4	1999	15	2014	37	3,449						$150,000								
HB1	EQ	Roads	United	Asphalt Hot Box	2001	15	2016	38	6,950							$150,000							
SS1	HE	Roads	International	Elgin Street Sweeper Crosswind J	2002	15	2017	39	1,619									$300,000					
PW9623	GP	Eng	Ford	4x4 Explorer	2002	15	2017	40	117,616							$50,000							
TR21	EQ	Roads	A-1 Welding	Shoring Trailer	1997	20	2017	41	8,754							$25,000							
E6	HE	LC	Autocar/Volvo	Boom Truck	1997	20	2017	42	3,923									$100,000					
LF6065	GP	LDF	Ford	F250 Pickup 4x4	2003	15	2018	43	50,297						$45,000								
TR8	EQ	UFD	Foster Rescue	Trailer - Rescue-SCBA Refill	2005	13	2018	44	5,833									$25,000					
VT2	HE	WW	Volvo	Vactor Truck	1998	20	2018	45	8,604	Replaced in FY21													
LF0750	HE	LDF	Ford	F-750 Flatbed with Lift	2003	15	2018	46	9,326							$80,000							
PS1	EQ	Roads	Graco	Road Lazer - Strip Painter	2003	15	2018	47	6,487									$35,000					
PW4751	HE	S	Ford	Flatbed F550 with Box	2004	15	2019	48	76,492							$80,000							
GM2	EQ	FM	Toro	Riding Lawn Mower	2009	10	2019	49	4,169						$20,000								
GS18	EQ	DPS	Generac	Stationary Backup Generator	1999	20	2019	50	7,717								$80,000						
PS2	EQ	Roads	Etnyre	Asphalt Distributor	2004	15	2019	51	5,744								$65,000						
BD6	HE	Roads	CAT	D4 Dozer	1992	20	2012	52	5,492										$350,000				
AC1	EQ	VM	Ingersol Rand	Air Compressor in DPW	1999	20	2019	53	23,622						$35,000								
BD7	HE	LC	CAT	D3 Dozer	1996	20	2016	54	6,196									$350,000					
TR17	EQ	LC	Trail King	Utility Trailer	1995	20	2015	56	9,277							$50,000							
BH3	HE	Roads	CAT	307C Mini Excavator	2005	15	2020	57	6,951												$200,000		
TR18	EQ	FM	Big Tex	Utility Trailer	1995	20	2015	58	5,804									$50,000					
CH4087	GP	ACM	Ford	4x4, Explorer	2005	15	2020	59	58,181						$35,000								
BD8	HE	LDF	CAT	D6 Dozer	1996	20	2016	60	4,118										$350,000				
CH7954	GP	C	Ford	4x4 Explorer - Red	2005	15	2020	61	55,573						$35,000								
T2	HE	Roads	Autocar/Volvo	Tractor, 5th Wheel	1998	20	2018	62	3,542							$100,000							

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Abbreviations:

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Engineering	E	Water	W	City Manager	CM	Police	UPD
Roads	Roads	Wastewater	WW	Assistant City Manager	ACM	Fire/EMS	UFD
Facilities Maintenance	FM	Line Crew	LC	Clerks	C	Animal Control Officer	ACO
Supply	S	Powerhouse	P	Planning	Plan	PCR	PCR
Vehicle/Equipment Maintenance	VM	Solid Waste/Landfill	LDF	Finance	Fin	Ports	Port
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As of 03-18-21

Vehicle #	Class	Primary User	Make	Function / Description	Year	Life Cycle	Replace Date	FY22 Replace Priority	Miles / Hours	Replace With	Transfer To	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
DT2	HE	Roads	GMC/Volvo	Dump Truck w/ Plow/Salt Spreader	2000	18	2018	63	13,450										$100,000				
GS15	EQ	WW	Northern Lights	Gen Set - Diesel - On Trailer	2000	20	2020	64	12,993										$90,000				
GS17	EQ	WW	Onan	Gen Set - Inside plant	2000	20	2020	65	7,553												$90,000		
SP1	EQ	WW	Pioneer Prime	Trailer Mounted Diesel Pump	2005	15	2020	66	5,726												$50,000		
UPD8407	GP	DPS/ACO	Ford	4x4, Explorer	2005	15	2020	66	47,322				$0										
PW4572	GP	FM	GMC	One Ton Service Truck	2006	15	2021	67	63,404						$60,000								
CC2	HE	Roads	CAT	Compactor	2001	20	2021	68	923												$250,000		
HM9290	GP	Ports-DIR	Ford	4x4, Explorer XLT	2007	15	2022	69	85,842						$40,000								
UPD5565	GP	DPS	Ford	4x4 Expedition	2015	7	2022	70	40,374						$45,000								
S2878	HE	VM	GMC	C5500 Service Truck	2007	15	2022	71	35,208										$85,000				
RG2	HE	Roads	CAT	Grader 14H	2004	18	2022	72	30,620													$600,000	
HML1	HE	Ports	CAT	908 Loader	2004	18	2022	73	7,504						$250,000								
CH9633	GP	Plan	Ford	4x4, Explorer	2008	15	2023	74	119,136						$35,000								
L3	HE	Roads	CAT	Loader, 902 small	2005	18	2023	75	3,919							$150,000							
UFD3535	HE	UFD	Kenworth	Pumper/Tender #3	2005	18	2023	76	5,927						$250,000								
DPU9546	GP	DPU-DEP	Ford	4x4 Explorer	2008	15	2023	77	50,942						$35,000								
UFD6859	GP	UFD	Ford	F350 Ambulance	2016	7	2023	78	5,314						$100,000								
UPD9114	GP	DPS	Ford	4x4, Expedition	2016	7	2023	79	53,542							$45,000							
W7587	GP	W	Ford	F150 4x4	2008	15	2023	80	37,736							$40,000							
FL4	HE	Ports	Manitou	Forklift	2003	20	2023	81	774							$75,000							
BH10	HE	Roads	Volvo	210 Excavator	2009	15	2024	82	3,460											$500,000			
FL5	EQ	S	Manitou	Forklift	2004	20	2024	83	1,195							$75,000							
ML4	EQ	P	Genie	JLG Electric Man Lift	2009	15	2024	84								$40,000							
TR4	EQ	Roads	Load King	Lowboy Equipment Trailer	2004	20	2024	85	6,208										$75,000				
TR7	EQ	UFD	Wells Fargo	Trailer - HAZMAT	2004	20	2024	86	5,956										$35,000				
UPD1438	GP	DPS	Ford	4x4 Expedition	2017	7	2024	87	20,569							$45,000							
UPD2891	GP	DPS	Ford	4x4 Expedition	2017	7	2024	88	50,537							$45,000							
UPD4552	GP	DPS	Ford	4x4 Explorer	2017	7	2024	89	5,075							$45,000							
UPD7430	GP	DPS	Ford	4x4, Expedition	2017	7	2024	90	47,444							$45,000							
UPD5150	GP	DPS	Ford	4x4 Expedition	2017	7	2024	91	39,497							$45,000							
UPD5153	GP	DPS	Ford	4x4 Expedition	2017	7	2024	92	51,879							$45,000							
PW4397	GP	FM	Ford	4x4, Pickup Super Cab	2009	15	2024	93	44,260							$50,000							
L9	HE	Roads	Volvo	Loader	2007	18	2025	94	21,910								$300,000						
PW1765	GP	FM	Ford	Flatbed, F350 salt bin	2010	15	2025	95	34,742								$50,000						
UFD3503	GP	UFD	Ford	Ambulance North Star Box	2012	13	2025	96	3,112								$250,000						
HM2	EQ	Ports	Almar	Rescue Boat 34.6'	2005	20	2025	97	5,659								$300,000						
TR9	EQ	Ports	EZLoad	Trailer (HM2 Rescue Boat)	2005	20	2025	98	5,622								$65,000						
HM3672	GP	Ports	Ford	4x4 Expedition XLT	2010	15	2025	99	84,720	COP							$0						
SB2	EQ	Roads	Snocrete	Snow Blower fits IT28	2000	25	2025	100	555									$45,000					
WSM3	EQ	W	Ski Doo	Snow Machine	2010	15	2025	101	3,790									$20,000					
TR19	EQ	W	Snow Sport	Trailer for Snow Machines	1995	20	2015	102	9,283										$10,000				
WSM4	EQ	W	Ski Doo	Snow Machine	2010	15	2025	102	3,790										$20,000				
HM8025	GP	Ports	Ford	4x4 Expedition XLT	2011	15	2026	103	105,282									$40,000					
DT4	HE	Roads	Volvo	Multifunction Rock/Water/Plow	2009	18	2027	104	6,686										$250,000				
EST1	EQ	PCR	Cargo Mate	Emergency Response Trailer	2012	15	2027	105	n/a										$35,000				
GS12	EQ	WW	Marathon	Kato Generator Lift Station #4	2007	20	2027	106	4,837												$50,000		
ML2	EQ	FM	Genie	Scissor Lift - Electric	2012	15	2027	107	3,004										$25,000				
PWATV	GP	FM	Honda	Honda ATV 4x4	2012	15	2027	108	3,364								$15,000						
RC5818	HE	PCR	Ford	14 Passenger Van	2012	15	2027	109	44,296										$45,000				
S7	EQ	Ports	Buyers	Salt Dogg Electric Plastic	2012	15	2027	110	2,918								$25,000						
TR11	EQ	Roads	Trailmax	Tilt-bed hauls D4, etc	2007	20	2027	111	5,852								$75,000						
RG8	HE	Roads	Volvo	Grader G990	2010	18	2028	112	12,734													$650,000	
CH5249	GP	CM	Ford	4x4 Expedition	2013	15	2028	113	31,999												$45,000		
AC6	EQ	UFD	Bauer	Air Compressor-SCBA	2015	13	2028	114	1,779												$50,000		
S5	EQ	Roads	Buyers	Salt Dogg Electric Stainless Steel	2013	15	2028	115	2,828												$25,000		
CC3	HE	Roads	Ingersol Rand	Compactor	2009	20	2029	116	2,248														$250,000

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GM3	EQ	FM	Toro	Riding Lawn Mower	2019	10	2029	117	222													$25,000	
RC2682	GP	PCR-DIR	Ford	F250 4x4 Crewcab	2014	15	2029	118	26,921												$60,000		
FL6	HE	P	CAT	Forklift - Propane	2009	20	2029	119	4,132												$65,000		
PW2683	GP	Roads	Ford	F350 4x4 Super Cab salt spreader	2014	15	2029	120	13,910													$35,000	
PW3479	GP	FM	Ford	Transit Cargo Van - Carps	2015	15	2030	121	15,742														$50,000
PW7213	GP	FM	Ford	F250 4x4 Super Cab Lift Gate	2015	15	2030	122	22,409														$60,000
LF4839	GP	LDF	Ford	4x4 PU Crew Cab F250 XL	2015	15	2030	123	10,639														$60,000
CV1	GP	LDF	Madvac	Compact Vacuum	2015	15	2030	124	1,881													$30,000	
S4	EQ	Roads	Buyers	Salt Dogg Electric Stainless Steel	2015	15	2030	125	1,822													$35,000	
BH11	HE	W	JCB	4x4 Backhoe	2016	15	2031	126	1,049														$200,000
AR1	EQ	Roads	Bagela	Asphalt Recycler	2011	20	2031	127	3,452														$100,000
SD2920	GP	WW	Ford	F150 Pickup 4x4	2016	15	2031	128	11,659														$50,000
SD4363	HE	WW	Ford	F450 4x4 Flatbed	2016	15	2031	129	1,959														$65,000
BG1	EQ	DPW-E	Generac	Generator - LDF - Soil Aeration	2012	20	2032	130	2,697														
E3653	GP	LC	Ford	F250 4x4 Ext Cab w/Stahl box	2017	15	2032	131	18,392														
E8466	GP	LC	Ford	F150 4x4 Crew Cab	2017	15	2032	132	20,170														
E9076	GP	P	Ford	F250 4x4 Crew Cab w/Space Kap	2017	15	2032	133	9,538														
HM2309	GP	Ports	Ford	F250 Regular Cab XL	2017	15	2032	134	84,022														
HM2310	GP	Ports	Ford	F250 Regular Cab XL	2017	15	2032	135	45,902														
HM3659	GP	Ports	Ford	F350 Regular Cab Flatbed	2017	15	2032	136	41,084														
TR10	EQ	Roads	Gilson	Trailer (Cement Mixer)	1978	20	1998	137													$50,000		
PW2653	GP	Roads	Ford	F350 Flatbed 4x4	2017	15	2032	138	21,736														$200,000
PW3438	GP	Roads	Ford	F750 w/Dump Box	2017	15	2032	139	1,440														$200,000
PW3660	GP	Roads	Ford	F350 Regular Cab Flatbed	2017	15	2032	140	18,548														$150,000
S6	EQ	Roads	Buyers	Salt Dogg Electric	2017	15	2032	141	1,581														$25,000
UFD1436	GP	UFD	Ford	4x4 Expedition	2017	15	2032	143	9,275														
UFD5149	GP	UFD	Ford	4x4 Expedition	2017	15	2032	144	12,154														
TR40	EQ	FM	Interstate	Ramp Trailer - School Loan	2000	20	2020	145	6,358														
W2312	GP	W	Ford	F250 Ext Cab w/Utility Box	2017	15	2032	146	33,597														
W6000	GP	W	Ford	F250 Ext Cab w/Utility Box	2017	15	2032	147	11,400														
UFD8364	GP	UFD	Pierce	Pumper Truck	2018	15	2033	148	4,383														
FL8	HE	WW	Manitou	Forklift	2014	20	2034	149	2,254														
CH4098	GP	IS	Ford	F250 4x4 Crew Cab w/Space Kap	2019	15	2034	150	1,420														
CH4106	GP	IS	Ford	F250 4x4 Extended Cab	2019	15	2034	151	1,011														
DPU7380	GP	DPU-DIR	Ford	4x4 Explorer	2019	15	2034	152	17,922														
E4126	GP	P	Ford	F250 4x4 Ext Cab w/Flatbed	2019	15	2034	153	5,726														
PW0466	GP	FM	Ford	F250 4x4 Super Cab w/rack	2019	15	2034	154	2,628														
PW0467	GP	VM	Ford	F250 4x4 Super Cab Tommy Lift	2019	15	2034	155	2,661														
PW0533	GP	FM	Ford	F250	2019	15	2034	156	3,767														
PW7379	GP	Eng	Ford	4x4 Explorer	2019	15	2034	157	4,053														
S8	EQ	Roads	Buyers	Salt Dogg Electric	2019	15	2034	158															
S9	EQ	Roads	Buyers	Salt Dogg Electric Stainless Steel	2019	15	2034	159	717														
UFD0465	GP	UFD	Ford	F250 4x4 Supercab Snow Plow	2019	15	2034	160	6,604														
UFD5247	GP	UFD	Ford	F150 Vaults	2019	15	2034	161	6,040														
W9802	GP	W	Ford	F350 Crew Cab Flatbed	2019	15	2034	162	6,517														
FL7	HE	WW	Toyota	Forklift - Electric	2015	20	2035	163	2,267														
FL9	HE	WW	Toyota	Forklift - Electric - Stand Up	2015	20	2035	164	2,030														
FL10	HE	S	Toyota	Forklift - Electric	2015	20	2035	165	1,655														
RG9	HE	Roads	CAT	Grader 14M3	2017	18	2035	166	2,981														
SD6223	GP	WW	Ford	4x4 Explorer	2020	15	2035	167	1,901														
TR3	EQ	DPS	Mirage	Response / Evidence Trailer	2015	20	2035	168	2,106														
TB1	HE	LDF	International	Tire Baler	2016	20	2036	169	1,738														
DT9	HE	Roads	International	Dump Truck International	2020	18	2038	170	1,311														
LF2	HE	LDF	CAT	950M Cat Loader	2018	20	2038	171	2,144														
L10	HE	Roads	CAT	930M Loader	2019	20	2039	172	1,203														
E7257	GP	LC	Ford	F550 Bucket Truck	2020	20	2040	173	84														

FY22-31 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 = FY22 Proposed New to Fleet
- Yellow = FY22 Replacements

Abbreviations:

Department of Public Works	DPW	Department of Public Utilities	DPU	City Hall	CH	Department of Public Safety	DPS
Engineering	E	Water	W	City Manager	CM	Police	UPD
Roads	Roads	Wastewater	WW	Assistant City Manager	ACM	Fire/EMS	UFD
Facilities Maintenance	FM	Line Crew	LC	Clerks	C	Animal Control Officer	ACO
Supply	S	Powerhouse	P	Planning	Plan	PCR	PCR
Vehicle/Equipment Maintenance	VM	Solid Waste/Landfill	LDF	Finance	Fin	Ports	Port
Director	DIR	Floater	Float	Information Systems	IS	Do Not Replace	DNR
Deputy Director	DEP						

As of 03-18-21

Vehicle #	Class	Primary User	Make	Function / Description	Year	Life Cycle	Replace Date	FY22 Replace Priority	Miles / Hours	Replace With	Transfer To	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
WX1	HE	Roads	CAT	Wheeled Excavator M314F	2020	20	2040	174	31														
GS19	EQ	W	CAT	Generator - Pyramid WTP	2016	25	2041	175	2,012														
BL1	HE	LDF	Mosley	Baler	1996	25	2021	DNR	9,051	Gasifier													
FL3	HE	P	Nissan	Forklift - Propane	1985	20	2005	DNR	8,979		Surplus Sale												
LF7211	GP	LDF	Ford	F250 Pickup 4x4	2002	15	2017	DNR	114,572		Surplus Sale												
PW0688	GP	VM	Ford	F150 4x4, Pickup Super Cab	2003	15	2018	DNR	65,722		Surplus Sale												
RH1	HE	LDF	Terex	Rock Hauler 33-05	1981	25	2006	DNR	3,657														
BH12	EQ	FM	Kubota	Tractor-Backhoe	2011	15	2026	New FY21	205				$12,500										
ML3	EQ	FM	Genie	Telescoping Man Lift	2020	15	2035	New FY21	8				$14,400										
Unknown	GP	W	Ford	F250 Ext Cab w/Utility Box	2020	15	2035	New FY21					$52,032										
RG3	HE	Roads	Volvo	Grader G976	2006	18	2024	Replaced FY18	10,117	RG9	Surplus Sale												
BH9	HE	WW	Case	580 Backhoe 4x4	1996	15	2011	Replaced FY20	8,703	BH2	Surplus Sale												
DT5	HE	Roads	GMC/Volvo	Dump Truck	1994	18	2012	Replaced FY20	19,420	New	Surplus Sale												
E4117	HE	LC	Ford	Bucket Truck	2001	20	2021	Replaced FY20	2,166	New	Surplus Sale	$185,000											
PW3448	GP	FM	Ford	F250 Supercab 4x4	2000	15	2015	Replaced FY20	97,028	New	Surplus Sale	$34,500											
SD5542	GP	WW	Ford	F150 4x4 Pickup	2004	15	2019	Replaced FY20	78,028		Surplus Sale												
UFD0118	GP	UFD	Ford	F350 4x4 Supercab	2003	13	2016	Replaced FY20	47,396		Surplus Sale	$40,000											
UFD5555	GP	UFD	Ford	F350 4x4 Equip Truck - Amaknak	1997	13	2010	Replaced FY20	8,520		VM												
CH7414	GP	CH/Float	Ford	4x4 Explorer	2003	15	2018	Replaced FY21	173,369	CH3710	Surplus Sale												
E5629	GP	LC	GMC	1 Ton Pickup w/Service Box	2008	15	2023	Replaced FY21	100,781	New	Surplus Sale		$65,145										
ML1	EQ	FM	Genie	Telescoping Man Lift	1992	15	2007	Replaced FY21	4,190	ML3	Surplus Sale												
PW4212	GP	Roads	Ford	F350 4x4, Flatbed w/snow plow	2003	15	2018	Replaced FY21	49,449	New	Surplus Sale		$34,543										
PW7449	GP	DPW-DIR	Ford	F150 4x4 Pickup	2000	15	2015	Replaced FY21	55,441	New	Surplus Sale		$37,047										
SD5275	GP	WW	Ford	F350 Flatbed	2004	15	2019	Replaced FY21	47,124		Surplus Sale		$42,017										
UPD0232	GP	DPS/ACO	Ford	4x4, Explorer	2005	15	2020	Replaced FY21	158,736	UPD8407	Surplus Sale		$0										
UPD9826	GP	DPS/DIR	Ford	4x4, Expedition - waiting for new	2012	7	2019	Replaced FY21	26,331				$34,307										
VT3	HE	Roads	Mack	Vactor Truck	2020	20	2040	Replaced FY21	362				$435,296										
												$1,259,000	$727,287	$1,395,145	$1,430,000	$1,430,000	$1,405,000	$1,465,000	$1,490,000	$1,500,000	$1,335,000	$1,375,000	$1,410,000

FY22 Facilities Maintenace Plan Summary

By Department

As of 03-07-21

Building	Address	Fund	SF	YR Built	Description of Proposed Maintenance Work	FY22 $$$	Est or Quote
City Hall	43 Raven Way	General			Paint Exterior Including Shingle Clean & Preserve	$ 220,000	Quote
Aquactics Center	55 East Broadway	General			Repair & Replace Roof	$ 445,000	Quote
Lear Rd Duplexes	69 & 73 Lear Road	General			Repairs & Paint Exterior	$ 17,000	Quote
Lear Rd Duplexes	81 & 85 Lear Road	General			Repairs & Paint Exterior	$ 17,000	Quote
Water Controls House	1057 E Broadway	Water			Repairs & Paint Exterior	$ 6,000	Quote
Wastewater Treatment Plant	19 Gilman Road	Wastewater			Install Air Intake Hoods / Touch-Up Painting	$ 43,000	Quote
						$ 748,000	

By Fund

GENERAL FUND	$ 699,000
ELECTRIC FUND	$ -
WATER FUND	$ 6,000
WASTEWATER FUND	$ 43,000
SOLID WASTE FUND	$ -
PORTS / HARBOR FUND	$ -
	$ 748,000

Facilities Maintenance Plan - 10 Year Look Ahead (Major Maintenance Only)

Building	Address	SF	Year Built	Description of Proposed Maintenance Work	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
GENERAL FUND														
Department of Public Safety	29 Safety Way	8,464		Repairs & Paint Exterior		$13,000								
Haystack Repeater Building	417 Trapper Dr	200		Repairs & Paint Exterior			$2,000							
Amaknak Fire Hall	2713 Airport beach Rd	3,600		Repairs & Paint Exterior		$22,000								
Isolation Center Cleaners Quarters	263 East Point Rd	3,888		Not City owned - Covid 19 use only										
Isolation Center Bunkhouse	256 East Point Rd	11,664		Not City owned - Covid 19 use only										
City Hall	43 Raven Way	14,448		Paint exterior incl roof shingles	$220,000									
Unalaska High School & Wood Shop	55 East Broadway	27,000		Repairs & Paint Exterior			$30,000							
Eagle View Elementary School	501 E. Broadway	27,505		Repairs & Paint Exterior			$17,000							
Fuel Island	1035 E. Broadway	48		Repairs & Paint Exterior										
DPW Main Building	1035 E. Broadway	25,040		Roof Replacement		$21,375								
DPW Wash Building	997 E. Broadway	2,821		Replace Boiler				$85,000						
DPW Supply Warehouse	995 E. Broadway	9,256		Replace Roof					$300,000					
DPW Salt/Sand Storage Building	1077 E. Broadway	1,815		Repair Rusted North Wall				$12,000						
DPW Hazmat Building	999 E. Broadway	183		Repairs & Paint Exterior										
Museum - Painting	314 Salmon Way	9,256		Repairs & Paint Exterior		$73,000								
Museum - Replace HVAC System	314 Salmon Way			Replace HVAC System			$100,000							
Library	64 Eleanor Dr	9,632		Repairs & Paint Exterior			$5,000							
Aquatics Center - Painting	55 East Broadway			Repairs & Paint Exterior			$1,040							
Aquatics Center - Roof Replacement	55 East Broadway			Replace Roof	$445,000									
Community Center - PCR	37 S. 5th	23,747		Repairs & Paint Exterior			$15,000							
Burma Road Chapel	28 East Broadway	5,521		Replace Roof		$26,000								
Ounalashka Park Concess Bldg	1588 East Broadway	863		Repairs & Paint Exterior			$4,224							
Ounalashka Park Equip Bldg	1588 East Broadway	480		Repairs & Paint Exterior				$3,500						
Memorial Park	1 Bayview	N/A		Misc Maintenance Painting			$2,112							
Sitka Spruce Park	180 Biorka Dr	216		Repairs & Paint Exterior			$1,500							
Skate Park	40 Raven Way	N/A		Repairs & Paint Equipment				$4,000						
Tanaadakuchax Park	Ptarmigan & Loop Rd	N/A		Repairs & Paint Equipment			$1,056							
Town Park	15 S. 3rd	100		Repairs & Paint Gazebo			$18,400							
Tutiakoff Field	33 King	778		Repairs & Paint Exterior		$1,056								
Expedition Park	75 S. Pacer Way	100		Paint Gazebo			$60,000							
Henry Swanson House	149 W. Broadway	576		Repairs & Paint Exterior				$18,000						
8-Plex Housing	18 Ptarmigan Rd	9,204		Repairs & Paint Exterior			$54,000							
4-Plex Housing - Painting	63 Loop Rd	4,548		Repairs & Paint Exterior		$37,000								
4-Plex Housing - Roof Replacement	63 Loop Rd			Replace Roof						$300,000				
69 & 73 Lear Rd Housing	69/73 Lear Rd	2,394		Repairs & Paint Exterior	$17,000									

Facilities Maintenance Plan - 10 Year Look Ahead (Major Maintenance Only)

Building	Address	SF	Year Built	Description of Proposed Maintenance Work	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
81 & 85 Lear Rd Housing	81/85 Lear Rd	2,040		Repairs & Paint Exterior	$17,000									
				GENERAL FUND TOTALS	**$699,000**	**$193,431**	**$311,332**	**$122,500**	**$300,000**	**$300,000**	**$0**	**$0**	**$0**	**$0**
ELECTRIC FUND														
New Powerhouse	1700 East Point Rd	33,750		Repairs & Paint Touch-up Exterior			$13,375							
Old Powerhouse	1732 East Point Rd	14,833		Repair Roof Cracks		$43,530								
Power Substation	176 Airport Beach Rd	1,600		Repairs & Paint Touch-up Exterior			$8,000							
				ELECTRIC FUND TOTALS	**$0**	**$43,530**	**$21,375**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
WATER FUND														
Pyramid Water Treatment Plant	1200 Pyramid Creek Rd	4,519		Repairs & Paint Exterior				$4,000						
Icy Lake Building	3151 Icy Lake Rd	350		Repairs & Paint Exterior				$1,000						
Icy Dam Building	2500 Pyramid Creek Rd	350		Repairs & Paint Exterior										
Unalaska Control House	1057 E. Broadway	400		Repairs & Paint Exterior	$6,000		$339							
Well House 1	1062 E. Broadway	318		Repairs & Paint Exterior			$3,168							
Well House 2	1354 E. Broadway	288		Repairs & Paint Exterior			$2,112							
Well House 3	1352 E. Broadway	144		Repairs & Paint Exterior			$1,584							
E.O.D. Building	2642 Ballyhoo Rd	300		Repairs & Paint Exterior				$12,000						
Nirvana Building	346 Dutton Rd	132		Repairs & Paint Exterior			$2,112							
Agnes Beach Building	411 Airport Beach Rd	640		Repairs & Paint Exterior			$3,900							
Old Chorine Plant	2486 Upper E. Broadway	560		Repairs & Paint Exterior				$15,000						
Old Water Plant	1400 Pyramid Creek Rd	400		Repairs & Paint Exterior			$23,550							
				WATER FUND TOTALS	$6,000	$0	$36,765	$32,000	$0	$0	$0	$0	$0	$0
WASTEWATER FUND														
Wastewater Treatment Plant	19 Gillman Rd	9,072		Install Air Intake Hoods	$43,000									
Liquid Stream Building	17 Gilman Rd	9,000		Repairs & Paint Touch-Up Exterior				$5,000						
Unalaska PO Pumping Station	82 Airport Beach Rd	80		Repairs & Paint Touch-Up Exterior				$1,000						
				WASTEWATER FUND TOTALS	**$43,000**	**$0**	**$0**	**$6,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
SOLID WASTE FUND														
Baler Building	1156 Summer Bay Rd	12,240					$29,000							
Leachate Building	1156 Summer Bay Rd	590		Repairs & Paint Exterior				$3,000						
Leachage Tank	1156 Summer Bay Rd	N/A		Repairs & Paint Exterior										
				SOLID WASTE FUND TOTALS	**$0**	**$0**	**$29,000**	**$3,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Facilities Maintenance Plan - 10 Year Look Ahead (Major Maintenance Only)

Building	Address	SF	Year Built	Description of Proposed Maintenance Work	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
PORTS FUND														
Carl E. Moses Harbor Office	570 Henry Swanson Dr	1,380		Repairs & Paint Exterior			$5,000							
Carl E. Moses Harbor Waste Oil Bldg	562 Henry Swanson Dr	680		Repairs & Paint Exterior			$5,000							
Robert Storrs Boat Harbor	22 Pacesetter Way	N/A					$30,000							
Expedition Boat Dock	75 S Pacesetter Way	N/A												
Unalaska Marine Center Warehouse	731 Ballyhoo Rd	6,000				$33,000								
USCG Dock Building	941 Ballyhoo Rd	450		Repairs & Paint Exterior			$15,000							
Spit Dock	2633 Ballyhoo Rd	N/A												
Airport	105 Terminal Dr	27,360		Repairs & Paint Exterior				$45,000						
					$0	**$33,000**	**$55,000**	**$45,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
	Total SF	**330,823**												
					$748,000	**$269,961**	**$453,472**	**$208,500**	**$300,000**	**$300,000**	**$0**	**$0**	**$0**	**$0**
FY Totals By Fund					**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**	**FY31**
GENERAL FUND					$699,000	$193,431	$311,332	$122,500	$300,000	$300,000	$0	$0	$0	$0
ELECTRIC FUND					$0	$43,530	$21,375	$0	$0	$0	$0	$0	$0	$0
WATER FUND					$6,000	$0	$36,765	$32,000	$0	$0	$0	$0	$0	$0
WASTEWATER FUND					$43,000	$0	$0	$6,000	$0	$0	$0	$0	$0	$0
SOLID WASTE FUND					$0	$0	$29,000	$3,000	$0	$0	$0	$0	$0	$0
PORTS / HARBOR FUND					$0	$33,000	$55,000	$45,000	$0	$0	$0	$0	$0	$0
					$748,000	**$269,961**	**$453,472**	**$208,500**	**$300,000**	**$300,000**	**$0**	**$0**	**$0**	**$0**

Department	Name	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Electric	34.5 kV Submarine Cable Replacement										
	Electric Energy Storage System										
	Electrical Breakers Maintenance and Service										
	Electrical Distribution Equipment Replacement										
	Electrical Intermediate Level Protection Installation										
	Generator Sets Rebuild										
	Installation of New 4 Way Switch at Town Substation										
	Large Transformer Maintenance and Service										
	Makushin Geothermal Project										
	Powerhouse Cooling Water Inlet Cleaning and Extension										
	Town Substation SCADA Upgrade										
	Wartsila Modicon PLC Replacement										
Fire	Fire Station Remodel										
	Fire Training Center										
Housing	Lear Road Duplexes Kitchen/Bathroom Renovations										
Other	Communications Infrastructure (Citywide)										
PCR	Aquatics Center Mezzanine and Office Space Expansion										
	Burma Road Chapel Kitchen Improvement										
	Community Center Playground Replacement										
	Community Center Technology Upgrades										
	Community Park Replacement Playground										
	Cybex Room Replacement										
	Dog Park										
	Gymnasium Floor										
	Kelty Field Improvement Project										
	Kelty Field SW Access										
	Kiddie Pool/Splash Pad										
	Multipurpose Facility										
	Park Above the Westward Plant										
	Parks and Recreation Study										
	Pool Expansion										
	Pump Track										
	Rebar Restoration and Re-plastering										
	Spa										
Planning	Unalaska Public Transportation Study										
Ports	Entrance Channel Dredging										
	LCD & UMC Dredging										
	Restroom Unalaska Marine Center										
	Robert Storrs Small Boat Harbor Improvements (A & B Floats)										
	UMC Cruise Ship Terminal										
Public Safety	Police Station PS19C										
Public Works	Burma Road Chapel Upgrades										
	Captains Bay Road & Utility Improvements										
	DPW Inventory Room - High Capacity Shelving										
	DPW Paint Booth / Body Shop										
	Equipment Storage Building										
	Facilities Maintenance Plan										
	HVAC Controls Upgrades - 11 City Buildings										
	Pavement Preservation - Sealcoating										
	Public Trails System										
	Rolling Stock Replacement Plan										
	Underground Fuel Tank Removal / Replacement										
Solid Waste	Oil Separator and Lift Station Replacement										
	Solid Waste Gasifier										
Wastewater	Scum Decant Tank Wet Well Improvements										
	Wastewater Clarifier Baffling Improvements										
	Wastewater Sludge Pump Check Valve Replacement										
Water	Biorka Drive Cast Iron Waterline Replacement										
	CT Tank Interior Maintenance and Painting										
	East Point Crossing Water Line Inspection										
	Generals Hill Water Booster Pump										
	Icy Lake Capacity Increase & Snow Basin Diversion										
	Icy Lake Hydrographic Survey										
	Icy Lake Road Reconstruction										
	Installation of Meter and Booster Pump at Agnes Beach PRV Station										
	Mainline and Service Valve Maintenance Program										
	Pyramid Water Storage Tank										
	Pyramid Water Treatment Plant Chlorine Upgrade										
	Sediment Traps Between Icy Lake and Icy Creek Reservoir										
Totals	Pre-Design	2	2	1	2	1		2			1
	Engineering	8	6	5	6	2	3	1	7		
	Construction	11	12	13	5	6	3	5	1	6	1
	Grand Total	21	20	19	13	9	6	8	8	6	2