## CITY OF UNALASKA UNALASKA, ALASKA

### **RESOLUTION 2020-26**

A RESOLUTION OF THE UNALASKA CITY COUNCIL ADOPTING THE FY21-FY25 CAPITAL AND MAJOR MAINTENANCE PLAN

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

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

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

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

WHEREAS, City staff and City Council have had the opportunity to review and comment on the nominations and the FY21-FY25 CMMP.

NOW THEREFORE BE IT RESOLVED that the Unalaska City Council approves and adopts the five-year CMMP, for FY21-FY25, as presented by the City Manager pursuant to Unalaska Code of Ordinances § 6.12.040.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on May 12, 2020.

Vincent M. Tutiakoff, Sr.

Mayor

ATTEST:

Mariie Veeder, CMC

City Clerk

## MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: William Homka, Planning Director
Through: Erin Reinders, City Manager

Date: May 12, 2020

Re: Resolution 2020-26 Adopting the FY21-FY25 Capital and Major Maintenance

Plan (CMMP)

**SUMMARY:** The CMMP serves a tool to help the City effectively and efficiently meet the needs of the community. This planning document outlines expected or recommended projects and anticipated expenditures for the upcoming five years. Typically the first year of the CMMP, in this case FY2021, closely resembles the FY2021 Capital Budget. City Staff has worked together on this document to prioritize items on previously identified Council priorities, project need, compliance requirements, and on-going maintenance-project status. We continue to explore ways to make this process more effective in the future. Staff recommends approval of Resolution 2020-26.

PREVIOUS COUNCIL ACTION: City Council reviews the CMMP each year for an opportunity to have input and subsequently adopt the CMMP as part of the overall budgeting process. Staff provided City Council an informational memo and presentation at the January 28, 2020 Council meeting. On April 28, 2020 staff provided another memo along with the project summary sheets and spread sheets. The information herein is as of Wednesday May 6, 2020. City Council members emailed questions concerning the CMMP to the City Clerk, who forwarded them to the Planning Department for resolution. We received six (6) questions and they are addressed in the discussion section below.

**BACKGROUND**: We kicked off the FY21-25 CMMP cycle at a meeting held at the Department of Public Safety's training room on August 22, 2019. Department directors, managers and any support staff involved with preparing CMMP nominations were invited to attend the training. It was important to attend the training because this year the Planning Department overhauled the process guide and introduced a new weighting system for prioritizing projects and a different software system to enter, manage and track CMMP projects. The training went better than expected and most of the attendees gained a quick understanding and working knowledge of the information presented.

City staff has continued working together to evaluate the FY21-25 CMMP portfolio and make prioritization decisions based on previously identified Council priorities, project need, compliance requirements, and on-going maintenance-project status. Another factor is whether or not the City can postpone or cancel the project for the next five years.

<u>DISCUSSION</u>: The FY21-25 CMMP presented for consideration today consists of twenty-nine (29) projects for a total of \$194,689,962. This amount includes \$11,116,074 of appropriated funds from prior year budgets. The rolling stock, presented separately, adds \$5,754,500 for a total of \$200,444,462.

Seven (7) projects are proposed in FY21 for \$4,219,131. The FY21 Rolling Stock adds an additional \$716,500 for a total of \$4,935,631. The following table provides more detail for FY21:

FY21	Project	Rolling Stock	Total
General Fund	\$1,966,793	\$176,500	\$2,143,293
Electric Proprietary Fund	\$2,052,338	\$65,000	\$2,117,338
Water Proprietary Fund	\$100,000	\$45,000	\$145,000
Wastewater Proprietary	\$0	\$430,000	\$430,000
Solid Waste Proprietary	\$100,000	\$0	\$100,000
Ports & Harbors Proprietary	\$0	\$0	\$0
TOTAL	\$4,219,131	\$716,500	\$4,935,631

Grants contribute significantly to some projects and are included in the total amounts. For example, the Entrance Channel Dredging project budget is \$37,436,750 but will receive a \$26,202,750 grant from the US Water Resources Development Act. The city will match the grant with \$8,734,000 from its General Fund in FY22. The City already appropriated \$2,500,000 in prior budget years for a total city contribution of \$11,234,000. Overall, grants contribute \$42,430,500 of the \$200,444,962 in the FY21-25 CMMP. This represents 21.17% of project funds. The FY21 CMMP does not have any grant funding.

While the current draft FY21 budget is able to accommodate the capital expenses outlined in the daft FY21-25 CMMP, the portfolio amount as a whole is very costly. Several projects from previous CMMP drafts have been eliminated. The remaining projects are essential to the city's infrastructure maintenance; a response to legal mandates; or are programmed with the hope of obtaining grant funding. Additional efforts will be made to explore and apply for grants, but grants are always tenuous until an award is announced. Staff is also discussing the potential of developing a 10 year capital improvement plan or process that would allow for Council's priorities to be clearly communicated, but in such a way that the total cost for theses project would not need to be pressed into a 5 year time period.

### Questions:

At the City Council meeting on April 28, 2020 City Council members were invited to submit questions about the Draft CMMP to staff via email. Staff received six (6) questions and they are listed below. Answers follow each question in italics and the author is also listed.

1. The Lear Road Housing project is from FY19, and was approved for \$296,000 plus \$104,000 contingency. The last open capital projects report I have shows the 100% still available. The request for 244,800 is in addition to the 296,000 or the total of 400,000?

"The request for \$244,800 brings the total for both duplexes to \$644,800."

Tom Cohenour

2. How much is left for both duplexes to be completed?

"As of 04-30-20, there is \$125,559.83 remaining in the project budget. The one duplex that is complete has two 3 bedroom units. The remaining duplex has two 2 bedroom units."

Tom Cohenour

3. The Ladder Truck was originally slated for FY22. Why has this been pushed to FY21?

"The move was due to the current Ladder Truck being unable to pass its yearly testing. The 1<sup>st</sup> discussion was to do an emergency acquisition in 2020 however, the consensus was to move the purchase to the FY21 instead."

Patrick Shipp

4. City drainage. Budgeted at 533,000 from FY2017?

"This project goes back to 2011 when design work began. Total budget was \$3,450,000 (design, construction, CA services, inspections) when 2017 we had one bidder at \$2,009,845.00 which was Northern Mechanical and included East Point Road, Standard Oil Hill, Ptarmigan Flats, and Trapper Drive. The Trapper Drive portion (\$326,370) was removed from the project due to lack of funding."

Tom Cohenour

5. The additional \$366,793 is to finish the drainage improvements identified in the Road Improvement Master Plan from 2010?

"As of 04-30-20, there is \$161,062.52 remaining in the project budget. See attached Project Budget Report. This will complete the project."

Tom Cohenour

6. Which genset is scheduled for rebuild in FY21, and will the project go out for bid, or is that part of the bid with Motor-Services Hugo Stamp?

"There will be no major rebuilds on our major engines. However, our new permit will include engines 8 & 9, which are smaller Cat engines and they will need rebuilt. A sole source contract will be awarded to Northern Cat who will be performing those rebuilds."

Dan Winters

<u>ALTERNATIVES</u>: If council chooses not to support the FY21–25 CMMP as presented, there are three main alternatives. Council could re-prioritize the projects currently in the plan, Council could recommend additional projects for inclusion or Council could recommend specific projects for removing from the CMMP. The revised CMMP would then be presented for Council's approval at a later date.

**FINANCIAL IMPLICATIONS:** There are no financial implications by adopting; however, this plan also gives staff direction as to what projects will be a priority for the City. The first year of the plan generally is mirrored by the coming year's Capital Budget. The final draft presented to City Council contains a total of \$4,935,631 in funding for FY21. Projects funded from the General Fund total \$2,143,293.

**LEGAL**: No legal opinion is required for this planning document.

**STAFF RECOMMENDATION:** Staff recommends approval of Resolution 2020-26 adopting the FY21-25 CMMP.

**PROPOSED MOTION:** I move to approve Resolution 2020-26.

<u>CITY MANAGER COMMENTS</u>: Thanks to staff for taking a close look at these projects, and the Planning Department for their coordination efforts. Although we have made further adjustments from previous versions of the CMMP, several projects still remain and the 5 year price tag is hefty. We believe that the FY21 proposals are reasonable and necessary, and have demonstrated that the draft FY21 budget is able to cover the capital expenditures. The ability for the City to cover all the expenses outlined in the outer years of this five year plan is not likely, but this does list our priorities. We will continue to look at how we can improve our planning efforts on capital improvements and budgeting in the years to come so that what is in the CMMP is more realistic overall. I support the staff recommendation.

## **ATTACHMENTS**:

- FY21-25 CMMP Project Funding Spreadsheet
- FY21-25 CMMP Project Summary Sheets
- FY21-25 Rolling Stock Replacement Plan

			7												,					
	2021	2021 Total					2022 Total	2023			2023 Total	2024		2024 Total	2025			2025 Total	Requested .	Appropriated Project Tot
	Electric General Grant Solid Waste Water		Electric General Grant	Ports	Solid Waste	Water		Electric General Ports	Solid Waste Wa	ter	Ele	tric General Ports	Water		Electric Ge	neral Ports	Solid Waste Wastewater			
Electric Proprietary Fund																				
34.5 kV Submarine Cable Replacement			\$60,000				\$60,000	\$120,000			<b>\$120,000</b> \$2	160,000		\$2,160,0	0				\$2,340,000	\$2,340,0
Automatic Meter Read System	\$304,000	\$304,00																	\$304,000	\$219,362 \$523,3
Electric Energy Storage System			\$3,549,938				\$3,549,938												\$3,549,938	\$650,062 \$4,200,0
Generator Sets Rebuild	\$1,748,338	\$1,748,33	8 \$1,783,305				\$1,783,305				<b>\$1,818,970</b> \$1	855,350		\$1,855,3	0 \$1,892,457			\$1,892,457	\$9,098,420	\$9,098,4
Powerhouse Cooling Water Inlet Cleaning and Extension			\$40,000					\$372,662			\$372,662								\$412,662	\$412,6
Electric Proprietary Fund Total	\$2,052,338	\$2,052,33	8 \$5,433,243				\$5,433,243	\$2,311,632			\$2,311,632 \$4	.015,350		\$4,015,3	0 \$1,892,457			\$1,892,457	\$15,705,020	\$869,424 \$16,574,4
General Fund								, , , , , , , , , , , , , , , , , , , ,				, , , , , , , , , , , , , , , , , , , ,								
Aerial Ladder Replacement	\$1,500,000	\$1,500,00	0																\$1,500,000	\$1,500,0
Burma Road Chapel Upgrades	\$100,000	\$100,00	0									\$479,000		\$479,0					\$579,000	\$10,000 \$589,0
Captains Bay Road & Utility Improvements			\$12,977,750				\$12,977,750	\$3,000,000 \$9,977,750			\$12,977,750	\$9,977,750	\$3,000,00	0 \$12,977,7	0 \$	9,977,750	\$3,000,0	0 \$12,977,750	\$51,911,000	\$2,000,000 \$53,911,0
City Wide Multi-Location Drainage	\$366,793	\$366,79	3																\$366,793	\$3,450,000 \$3,816,7
Community Center Playground Replacement																\$300,000		\$300,000	\$300,000	\$300,0
Entrance Channel Dredging			\$8,734,000 \$26,202,750				\$34,936,750												\$34,936,750	\$2,500,000 \$37,436,7
Fire Station Remodel												\$2,000,000		\$2,000,0	0				\$2,000,000	\$2,000,0
Fire Training Center												\$1,501,500		\$1,501,5	0				\$1,501,500	\$12,000 \$1,513,5
HVAC Controls Upgrades - 11 City Buildings			\$433,827				\$433,827												\$433,827	\$433,8
Lear Road Duplexes Kitchen & Bath Renovations												\$244,800		\$244,8	0				\$244,800	\$400,000 \$644,8
Police Station								\$22,090,000			\$22,090,000								\$22,090,000	\$22,090,0
Public Trails System																\$100,000		\$100,000	\$100,000	\$100,0
Unalaska Public Transportation Study																\$200,000		\$200,000	\$200,000	\$200,0
General Fund Total	\$1,966,793	\$1,966,79	3 \$9,167,827 \$39,180,500				\$48,348,327	\$3,000,000 \$32,067,750			\$35,067,750	\$14,203,050	\$3,000,00	00 \$17,203,0	0 \$1	0,577,750	\$3,000,0	0 \$13,577,750	\$116,163,670	\$8,372,000 \$124,535,6
Ports Proprietary Fund																				
LCD & UMC Dredging								\$2,544,495			\$2,544,495								\$2,544,495	\$109,650 \$2,654,1
Port Rescue Boat Overhaul				\$100,000	0		\$100,000												\$100,000	\$100,0
Restroom Unalaska Marine Center								\$50,000			\$50,000	\$480,16	D	\$480,1	0				\$530,160	\$530,1
Robert Storrs Small Boat Harbor Improvements (A & B Floats)			\$3,250,000	\$6,045,000	0		\$9,295,000												\$9,295,000	\$650,000 \$9,945,0
WMC Cruise Ship Terminal								\$910,000			\$910,000					\$17,290,0	00	\$17,290,000	\$18,200,000	\$390,000 \$18,590,0
Ports Proprietary Fund Total			\$3,250,000	\$6,145,000	0		\$9,395,000	\$3,504,495			\$3,504,495	\$480,16	D .	\$480,1	0	\$17,290,0	00	\$17,290,000	\$30,669,655	\$1,149,650 \$31,819,3
Solid Waste Proprietary Fund																				
Oil Separator and Lift Station Replacement					\$971,100		\$971,100												\$971,100	\$971,1
Solid Waste Gasifier	\$100,000	\$100,00	0		\$200,000		\$200,000		\$400,000		\$400,000						\$7,620,000	\$7,620,000	\$8,320,000	\$8,320,0
Solid Waste Proprietary Fund Total	\$100,000	\$100,00	0		\$1,171,100		\$1,171,100		\$400,000		\$400,000						\$7,620,000	\$7,620,000	\$9,291,100	\$9,291,1
Water Proprietary Fund																				
CT Tank Interior Maintenance and Painting						\$953,000	\$953,000												\$953,000	\$100,000 \$1,053,0
Icy Lake Road Reconstruction						\$100,000	\$100,000		\$1,	,200,000	\$1,200,000								\$1,300,000	\$1,300,0
Pyramid Water Storage Tank											\$603,750		\$7,906,19	3 <b>\$7,906,1</b>	3				\$8,509,943	\$625,000 \$9,134,9
Pyramid Water Treatment Plant Chlorine Upgrade	\$100,00	0 <b>\$100,00</b>	0			\$881,500	\$881,500												\$981,500	\$981,5
Water Proprietary Fund Total		0 \$100,00		'	*	\$1,934,500		' ' <u> </u>	\$1,	,803,750	\$1,803,750	' '	\$7,906,19	3 \$7,906,1	3	'	· · · · · · · · · · · · · · · · · · ·		\$11,744,443	\$725,000 \$12,469,4
Grand Total				\$6.145.000				\$5,311,632 \$32,067,750 \$3,504,495				015.350 \$14.203.050 \$480.16				0.577.750 \$17.290.0	00 \$7.620.000 \$3.000.0	0 \$40.380.207		

**PROJECT DESCRIPTION:** It became evident in 2019 that the PCR side of the Burma Road Chapel was showing signs of rotten siding along the lower portions of the exterior wall. Architect Corey Wall with JYL Architects, who are conducting the DPS Building Assessment Project, crawled under the Burma Road Chapel and took photos of the rim joists. Signs of rot are evident from inside below the building. The original scope of this project removes shingles, roof boards, damaged insulation, installs framing for eave soffit ventilation/increased depth for insulation, installs insulation to R-30, installs new roof boards, re-roofs the building, paints the new eaves and trim. That scope has not changed but the temporary repairs to the roof are holding up remarkably well and additional roof repairs will need to be executed in the future. A more imminent need is the repair of the rotten rim joists and exterior siding on the PCR side of the Burma Rd Chapel.

**PROJECT NEED:** As noted above in Project Description, the exterior siding and rim joists are showing signs of rot and need to be replaced. Also, the facility lacks proper insulation and ventilation below the roofing. It causes snow melt on the roof to run down to the eave and freezes where the walls and roof join together where there is less heat loss at that part of the roof structure. 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. The facility's life will be extended by eliminating further water damage to the structural components below the roof. The new roof will protect the facility for at least another 30 years.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** As part of the DPW-Facilities Maintenance budget, we will replace the metal flashing and heat trace on the eave as an interim measure when the present system fails. The rotten siding along the lower portions of the exterior wall and wall sill plate will be repaired in FY21. The major roof repairs will be conducted in the future, possibly as soon as FY24.

# **FY21-25 CMMP**

## **BURMA ROAD CHAPEL UPGRADES | DPW**

## PW20A | MAJOR MAINTENANCE

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2020
Engineering/Design: FY 2021
Purchase/Construction: FY 2024



ost 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
Less Other Funding Sources (Grants, etc.)	-
Total Funding Request \$	589,000

REVENUE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS								
SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total			
<b>General Fund</b>	10,000	100,000			479,000		589,000			
1% Sales Tax										
Grant										
<b>Proprietary Fund</b>										
TOTALS \$	10,000	100,000			479,000		589,000			
Requested Funds:										

**PROJECT DESCRIPTION:** This project will construct drainage, utilities, and pavement out Captains Bay Road to the entrance of the Offshore Systems, Inc. (OSI). This will involve 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 serves as a primary transportation route for Westward Seafoods, Crowley Marine Transportation, North Pacific Fuel, Northland Services, Offshore Systems Inc., and several smaller businesses as well as residential homes. The section of road making up this project is a high traffic area of heavy vehicles which are used by the fishing and support industries which are vital to the community's economic welfare. During the public meetings regarding the Road Improvement Master Plan recommendations in September 2011, residents and industry representatives discussed the hazards that the high road crown, which is needed for adequate drainage, creates for the large trucks and school buses traveling the road. There was strong support from the public for improvements to Captain's Bay Road. The area of Captains Bay Road is also an area of potential growth in the community as identified in the Comprehensive Plan.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** 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 still very rough estimates that will be refined as the project commencement approaches. Costs are

(Grants, etc)

split between Grant Funding and General Fund for the paving and drainage portion and the three utility funds based on the costs for each of those portions. As of April 10, 2020, the State did not award grant funds via the STIP / CTP. Additional grant opportunities will be sought out.

Preliminary Estimate by HDL Engineering for total project costs = \$53,911,000

**COST & FINANCING DATA:** 

## **Cost Assumptions**

Engineering, Design, Const	t Admin	5,370,000
Other Professional Service	S	300,000
Construction Services		35,800,000
Machinery & Equipment	_	0
	Subtotal	41,470,000
Contingency (set at 30%)	_	12,441,000
	TOTAL	53,911,000
Less Other Funding Source	es :	

Total Funding Request 53,911,000

# **FY21-25 CMMP**

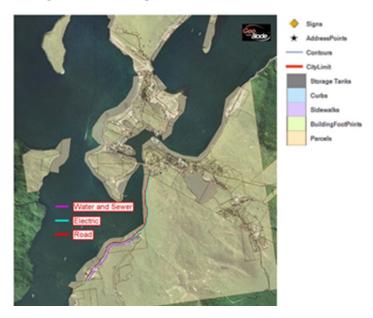
## **CAPTAINS BAY ROAD & UTILITY IMPROVEMENTS | DPW**

## PW19A | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2020
Engineering/Design: FY 2021
Purchase/Construction: FY 2022

## Captains Bay Road and Utilities



	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS									
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total				
General Fund	2,000,000			9,977,750	9,977,750	9,977,750	31,933,250				
Grant			12,977,750				12,977,750				
Electric Proprietary Fund				3,000,000			3,000,000				
Water Proprietary Fund					3,000,000		3,000,000				
Wastewater Proprietary Fund						3,000,000	3,000,000				
TOTALS \$	2,000,000		12,977,750	12,977,750	12,977,750	12,977,750	53,911,000				
Requested Funds:											

**PROJECT DESCRIPTION:** This is part of an ongoing drainage project spanning multi-years. This phase of the project will improve storm drain infrastructure and control runoff from spring snow melt and rainfall which has been an ongoing cause of erosion on Trapper Drive for several years.

**PROJECT NEED:** The Road Improvement Master Plan, completed in 2009-1010, identified drainage improvements as a high priority task in order to keep water off road surfaces and out of the road base. Gravel and paved roads without adequate drainage deteriorate and require much more frequent maintenance of the driving surface. Improved water quality in our lakes, streams, and ocean has also been identified as high priority by the community and the Alaska Department of Fish and Game.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** This portion of our City Wide Multi-Location Drainage (Munis number PW203) project is fully designed and was included in the 2017 bid package. Because bids came in higher than our budget allowed, the Trapper Drive portion was removed from the bid award with the intent to conduct the work at a later date. Regan Engineering has completed plans and specifications for this work. Cost estimate is based on the 2017 bids with a 10% inflation factor included. Council initially funded this project via the FT2013 CMMP and Budget Ordinance 2012-04 which was approved and adopted on May 22, 2012.

Cost Assumptions								
Other Professional Services								
Engineering, Design, Construction Admin	381,711							
Construction Services	2,554,284							
Machinery & Equipment								
Subtotal	2,935,995							
Contingency (30%)	880,798							
Total Funding Request	3,816,793							

# **FY21-25 CMMP**

## CITY WIDE MULTI-LOCATION DRAINAGE | DPW

## PW203 | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2017
Engineering/Design: FY 2017
Purchase/Construction: FY 2021





REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS							
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total		
General Fund	3,450,000	366,793					3,816,793		
1% Sales Tax									
Grant									
Proprietary Fund									
TOTALS \$	3,450,000	366,793					3,816,793		
Requested Funds:									

**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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):**

- In FY20, our HVAC controls contractor, Long Building Technologies, gave us an informal no cost quote.
- In FY21 we will work with Long to refine the scope and get a solid cost estimate.
- In FY22, Project implementation will occur.

### **COST & FINANCING DATA:**

## **Cost Assumptions**

Engineering, Design, Cons	t Admin	2,000
Other Professional Service	es	500
<b>Construction Services</b>		331,213
Machinery & Equipment	<u>-</u>	0
	Subtotal	333,713
Contingency (set at 30%)	_	100,114
	TOTAL	433,827

**Less Other Funding Sources** 

Total Funding Request 433,827

# **FY21-25 CMMP**

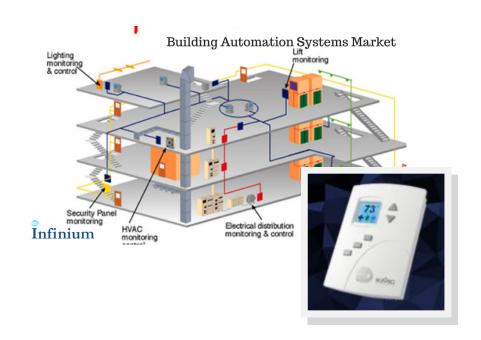
## HVAC CONTROLS UPGRADES—11 CITY BUILDINGS | DPW

## **MAJOR MAINTENANCE**

## **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2020 Engineering/Design: FY 2022

Purchase/Construction: FY 2022



		FISCAL YEAR FUNDING REQUESTS								
REVENUE SOURCE	APPROPRIATED FUNDS	FY21	FY22	FY23	FY24	FY25	Total			
General Fund			433,827				433,827			
1% Sales Tax										
Grant										
Proprietary Fund										
TOTALS \$			433,827				433,827			
Requested Funds:										

**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 logo is designed along with project wide plans & specifications.

Phase 2 Construction: This project provides consistent signage design, wayfinding, improves existing trails network, and establishes trail system maintenance protocols.

**PROJECT NEED:** The existing array of walking and biking pathways are haphazard, unmarked, lack maintenance, have no amenities, and are predominately detrimental to the safety and enjoyment of the public and tourists.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** 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 interest, and 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. Existing staff in Planning and Public Works will establish overall Public Trails System Scope of Work in written format. A Trails and Pathways Consultant will be hired for approximately 9 months to coordinate the development of the trails system Scope of Work by partnering with the City of Unalaska (COU), OC, the Q-Tribe, and BLM. Cost & Financing Data: 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.

### **COST & FINANCING DATA:**

Tentative Schedule:

FY21, Phase 1: existing staff develops Scope of Work. Funding request \$0.00 FY25, Consultant selected to formally develop a Trails Master Plan, fosters partnership with OC, Q-Tribe, and BLM. Pursues grant opportunities. Funding request \$100,000.

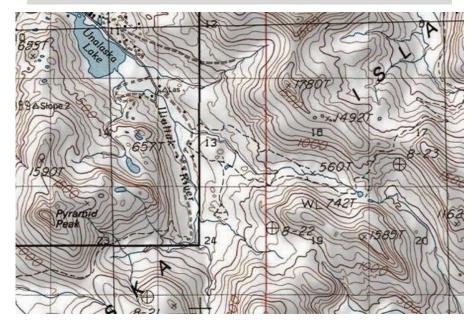
# **FY21-25 CMMP**

## PUBLIC TRAILS SYSTEM | DPW

### CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2021
Engineering/Design: FY 2025
Purchase/Construction: NA



Cost Assumptions		B	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS							
Engineering, Design, Const Ad	dmin	100,000	REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
Other Professional Services		0	General Fund						100,000	100,000	
Construction Services		0	1% Sales Tax								
Machinery & Equipment		0	Grant								
Su	ubtotal	100,000	Proprietary Fund								
Contingency (set at 30%)		0	TOTALS \$						100,000	100,000	
	TOTAL	100,000	Requested Funds:								

**PROJECT DESCRIPTION:** New playground equipment is needed 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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** Planning for the replacement play structures will be done while the Operations Manager is at the National Parks and Recreation Association Conference in the fall of 2020. The project will be funded in FY25.

### **COST & FINANCING DATA:**

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

# **FY21-25 CMMP**

## COMMUNITY CENTER PLAYGROUND REPLACEMENT | PCR

### **CAPITAL PROJECT**

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2024

Engineering/Design: FY 2024
Purchase/Construction: FY 2025



	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund						300,000	300,000	
1% Sales Tax								
Grant								
Proprietary Fund								
TOTALS \$						300,000	300,000	
Requested Funds:								

**PROJECT DESCRIPTION:** This project constructs a new modern 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 unable to safely serve as a modern day Public Safety Complex. The physical structure does not support all the operational needs of the department. Existing facility issues include but are not limited to:

- Inadequate staff support space, undersized staff offices with little privacy; limited interview and observation space; and no locker rooms for uniform changes, post-exposure decontamination, etc.
- Building access restrictions that are required for Police operations constrain volunteer fire-fighter use and activities.
- Detainee entrance is a narrow passage to parking area; emergency responses delayed if prisoners are being unloaded. Undersized booking area crowded and potentially hazardous for staff with unruly prisoners. Evidence drop-off/storage area is remote resulting in chain of custody and security issues.
- Crowded dispatch area provides little security from the public lobby, creating a safety and confidentiality issue. The lobby has seating space for only two people.
- Fire apparatus garage houses EMS supplies, turnout gear, air compressor and gym due to lack of space and creates potential contamination from the garage fumes.

### **DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):**

May 22, 2018: Council funded the DPS Building Assessment project in the amount of \$100,000 via the FY2019 Capital & Operating Budget Ordinance No. 2018-04.

December 11, 2018: Council passed Resolution 2018-63 which authorized the City Manager to enter into an agreement with Jensen Yorba Lott, Inc (JYL) to perform the DPS Building Assessment Project for \$97,000. December 11, 2018: Council approved Ordinance 2018-11, which effectively split the Department of Public Safety by creating the Department of Fire and Emergency Medical Services, thereby necessitating the furtherance of the DPS Building Assessment Project.

March 12, 2019: Corey Wall, JYL's Principal Architect, gave a presentation to the Council on the Project's progress and provided options for remodeling the existing facility as well as possible locations to place a new facility. At the conclusion of the presentation, Council directed staff to investigate the subsurface conditions of the existing Skate Park site as a likely location for a new Police facility. It was agreed that the Skate Park site was prime City owned real estate and a site investigation was warranted regardless of what future development occurred there.

April 23, 2019: Council approved the FY2020-2024 CMMP via Resolution 2019-18.JYL's original scope of work included a functional assessment of the existing DPS facility and to provide schematics for existing building expansion or new construction to serve both Police and Fire needs. The work performed by JYL under their current Agreement is approximately 90% complete. The remaining portion of JYL's work includes a new facility Pre-Design. The Pre-Design cannot be adequately accomplished until the subsurface conditions at the Skate Park site have been evaluated to determine if the DPS Facility can cost-effectively and feasibly be constructed there. The proposed FY23 scope of work for this project includes design and construction of a new modern Police Station on the Skate Park site.

# **FY21-25 CMMP**

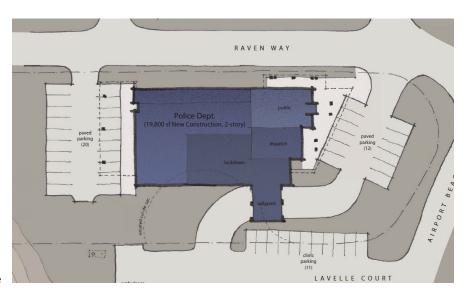
## **POLICE STATION | DPS**

### CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2020

Engineering/Design: FY 2023
Purchase/Construction: FY 2023



## **Cost Assumptions**

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

REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS							
	FUNDS	FY21	FY22	FY23	FY24	FY25	Total		
General Fund				22,090,000			22,090,000		
1% Sales Tax									
Grant									
Proprietary Fund									
TOTALS \$				22,090,000			22,090,000		
Requested Funds:									

**PROJECT DESCRIPTION:** Replacement of the aerial apparatus. The current apparatus was built in 1997 and has been in service for 22 years.

**PROJECT NEED:** In keeping with our past practices of replacing apparatus every 25 years we will spec and build this apparatus in FY21. NFPA currently states that apparatus should be replaced every 10 years. With our current low fire call volume and excellent maintenance record we are able to stretch the life span by 150%. Our current apparatus pump has been rebuilt recently and is now in need of more large scale maintenance to come back into compliance with third party certification. Building a new apparatus will ensure that Unalaska Fire Department will stay current with industry standard and best serve the community of Unalaska. This apparatus will allow us to operate more efficiently and safely during emergency events. The new proposed apparatus will be designed with the safety of our firefighters first and the community second. With this new apparatus the department will be able to reach higher or further out and pump more water per minute.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** The design, development, and purchase of this apparatus will occur in FY21. As we have done with all fire apparatus we will sole source this project through Pierce Manufacturing. This reduces the training and familiarization time for department personnel and city maintenance staff. This apparatus will be custom built in Appleton Wisconsin with three trips made to the manufacturer to ensure the apparatus spec and timeline is being met.

**COST & FINANCING DATA:** The cost of this apparatus could be fully funded through the

general fund. The Fire Department has been a Pierce fleet since 1997 keeping firefighter and maintenance training costs down. In Keeping with that precedent this should be a sole source product through Pierce Manufacturing.

Cost Assumptions	
Other Professional Services	
Engineering, Design, Construction Admin	1,500,000
Construction Services	
Machinery & Equipment	
Subtotal	1,500,000
Contingency (0%)	0
Total Funding Request	1,500,000

# **FY21-25 CMMP**

## **AERIAL LADDER REPLACEMENT | FIRE**

### ROLLING STOCK

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2021
Engineering/Design: FY 2021
Purchase/Construction: FY 2021



Brysnus Coupes	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund		1,500,000					1,500,000	
1% Sales Tax								
Grant								
Proprietary Fund								
TOTALS \$		1,500,000					1,500,000	
Requested Funds:								

**PROJECT DESCRIPTION:** Remodel existing DPS building after new Police Station is constructed on Skate Park site and Police move to new facility.

**PROJECT NEED:** Constructed in 1987, the present structure is in need to mechanical, architectural, and electrical upgrades. Fire apparatus garage houses EMS supplies, turnout gear, air compressor and gym due to lack of space and creates potential contamination from garage fumes.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** After the Police move to a new facility, the existing structure will be renovated for Fire use. Architectural firm JYL produced an initial cost estimate in February 2020 for a complete and comprehensive remodel at an estimated cost of \$8,970,000. While this would provide a near state-of-the-art Fire Station, a scaled down approach is adequate and will serve the Fire Department well. The scaled down approach cost is \$2,000,000. Funding will come from the General Fund and/or the 1% Capital Projects Fund.

### **COST & FINANCING DATA:**

## **Cost Assumptions**

Engineering, Design, Const Admin	120,000
Other Professional Services	55,250
Construction Services	1,295,000
Machinery & Equipment	340,000
Subtotal	1,810,250
Contingency 15%	189,750
TOTAL	2,000,000

# **FY21-25 CMMP**

## FIRE STATION REMODEL | FIRE

### **CAPITAL PROJECT**

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2021
Engineering/Design: FY 2024
Purchase/Construction: FY 2024



REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund					2,000,000		2,000,000	
1% Sales Tax								
Grant								
Proprietary Fund								
TOTALS \$					2,000,000		2,000,000	
Requested Funds:								

**PROJECT DESCRIPTION:** This project will establish a much needed live fire training facility. The structure will provide residential-like design with a burn room, interior stairs to multiple floors, interior fixed ladder, roof-mounted chop-out curbs, and parapet roof guard with chain opening. This allows for multiple training exercises including hose advancement, fire attack, search & rescue, rappelling, laddering, confined space, and high-angle rescue operations. The facility may also be used for police use-of-force training exercises, as well as for confined space training. Currently there are no such facilities, for public or private sector organizations, in the City of Unalaska. This facility will also include a "dirty" classroom and a "clean" classroom. These will allow personnel to stay out of the elements while the are instructed on the didactic portion of the lesson.

**PROJECT NEED:** Firefighters cannot be certified in Alaska without meeting a live fire requirement, to ensure that they experience fighting fires with significant heat and smoke in limited or zero visibility environments. An uncertified volunteer or paid firefighter can respond to a fire, but live fire training and certification ensures that they are prepared, so they don't panic in a real situation. No such live fire facility exists in Unalaska. Currently, firefighters go off-island for live fire training and certification at a cost of approximately \$3,000 each; the training requires 1-2 weeks and volunteers must take time off from work and/or family commitments in order to attend. The proposed live fire building can be modified for use by the police department to practice active shooter or other use-of-force situations, and can also be used as a confined space rescue training facility by other City departments or private industry. Additionally, this facility could be used as a regional training center for other Aleutian Communities. This project will also include utilities run the site. Approximately 8000 feet of large diameter water piping and wastewater will be run in the road up to the site. This would equip the site as a training site that could be used by multiple departments in the city.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** At present, only a concept plan exists, shown on the right side of this page. The location of these buildings will be at the present DPS Building which will be the future Fire Station after Police move out and are relocated at their new Police Station which will be constructed at the present day Skate Park.

**COST & FINANCING DATA:** All monies will come from the general fund. \$12,000 was previously appropriated for a temporary training structure made from shipping containers.

# **FY21-25 CMMP**

## FIRE TRAINING CENTER | FIRE

## PS19A | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2019
Engineering/Design: FY 2024
Purchase/Construction: FY 2024



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

REVENUE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS							
SOURCE	Funds	FY21	FY22	FY23	FY24	FY25	Total		
<b>General Fund</b>	12,000				1,501,500		1,513,500		
1% Sales Tax									
Grant									
<b>Proprietary Fund</b>									
TOTALS \$	12,000				1,501,500		1,513,500		
Requested Funds:									

**PROJECT DESCRIPTION:** In 2017 the Planning Department initiated a study of the city's need for public transit. The island population of about 4,500 residents more than doubles to 11,000 during processing seasons. The study collected surveys from riders during two bus simulation periods and the results indicated a high probability of ridership. This CMMP project is to prepare a second study by professional transportation planners and engineers to review the first study and conduct a more thorough analysis of how a public transportation system could benefit Unalaska, funding sources for the system, service area and route design and capital equipment needed for the system.

**PROJECT NEED:** A predominantly large percentage of people on the island lack a mode of transportation that is prudent to year round use in Unalaska's harsh climate. The population that would use the system include the elderly, youth, processors, and those seeking alternatives to the high cost of vehicle ownership and maintenance on the island. The Planning Department's 2018 Transportation Study highlighted several transportation grants that could fund up to 80% of the cost annually. This project should also explore partnership opportunities Q-Tribe, OC, and private island corporations to effectively leverage investment and grant opportunities. Furthermore, the project should explore the structure of such a system, whether it is a Transit Authority, a department of one of the major investors, a city or tribal department, or otherwise.

### **DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):**

- FY 2025 expenditure is \$200,000 (because this is a study, there is no slated contingency) from the General Fund for the study itself.
- Based on the 2025 study, the expectation is to identify grants available to further lower the
  cost, potentially up to 80% with the correct partners taking the wheel.

### **COST & FINANCING DATA:**

### **Cost Assumptions**

Other Professional Services \$200,000
Engineering, Design, Construction Admin
Construction Services
Machinery & Equipment

**Subtotal** \$200,000

Contingency (30%) \$6

**Total Funding Request** \$200,000

# **FY21-25 CMMP**

## UNALASKA PUBLIC TRANSPORTATION STUDY | PLANNING

### **CAPITAL PROJECT**

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2025
Engineering/Design: NA
Purchase/Construction: NA



		FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	APPROPRIATED FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund						200,000	200,000	
1% Sales Tax								
Grant								
Proprietary Fund								
TOTALS \$						200,000	200,000	
Requested Funds:								

**PROJECT DESCRIPTION:** This project consists of the full renovation of both kitchens in units 69 & 73 and 81 & 85 (4 kitchens and 6 bathrooms total). The work will replace all cabinets, countertops, and flooring in both units of both duplexes, and will also include some electrical, plumbing, fixtures, and parts as necessary.

**PROJECT NEED:** This project has been nominated due to the age and condition of the cabinets, countertops, and flooring in both units of both duplexes. The cabinets and countertops in the units are original from 1980, meaning they are 40 years old. Labor and maintenance cost are increasing. 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 fifteen 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.

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

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** 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. Work proceeded on units 69 & 73.

### **COST & FINANCING DATA:**

# **FY21-25 CMMP**

## **LEAR RD DUPLEXES KITCHEN & BATH RENOVATIONS | HOUSING**

## **EH18A | MAJOR MAINTENANCE**

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: NA
Engineering/Design: NA
Purchase/Construction: FY 2024

### Lear Road Duplexes



## **Cost Assumptions**

Engineering, Design, Const	60,000	
Other Professional Services		10,000
Construction Services		426,000
Machinery & Equipment	_	0
	Subtotal	496,000
Contingency (set at 30%)		148,800
	ΤΟΤΔΙ	644 800

REVENUE SOURCE	APPROPRIATED FUNDS	FISCAL YEAR FUNDING REQUESTS						
		FY21	FY22	FY23	FY24	FY25	Total	
General Fund	400,000				244,800		644,800	
1% Sales Tax								
Grant								
Proprietary Fund								
TOTALS \$	400,000				244,800		644,800	
Requested Funds:								

**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 using two existing feeders. One feeder crosses Iliuliuk Bay between East Point Road and Bay View Avenue. This feeder is nearing the end of its lifespan and replacement will be required.

**PROJECT NEED:** The submarine cable crossing is understood to be 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 that have been moved by waves over the years are now sitting directly on the cable. While the 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 and should be corrected as soon as feasible.

DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS): Once a preliminary design is completed, then the Section 10 permit package can be developed and filed with the Army Corps of Engineers. The project assumes the Corps will determine that the cable project will qualify for a Nationwide permit, which a streamlined version of an individual permit. The Corps will coordinate with federal and state resource agencies during the review process. The agencies will consider project impacts to endangered species, impaired waterbodies, and fish habitats. The Corps usually issue 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 points of connection as the existing line. However, the capacity of this line should be updated during the engineering planning phase of this project in order 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. The money for this project will come from the Electrical Proprietary Fund.

### **COST & FINANCING DATA:**

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

#### FISCAL YEAR FUNDING REQUESTS REVENUE APPROPRIATED SOURCE **FUNDS** FY21 FY22 FY23 FY24 FY25 Total **General Fund** 1% Sales Tax Grant 60,000 120,000 2,340,000 **Proprietary** 2,160,000 Fund **TOTALS \$** 60,000 120.000 2,160,000 2,340,000 **Requested Funds:**

# **FY21-25 CMMP**

## 34.5 KV SUBMARINE CABLE REPLACEMENT | ELECTRIC

### MAJOR MAINTENANCE

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2022
Engineering/Design: FY 2023
Purchase/Construction: FY 2024



**PROJECT DESCRIPTION:** The Electric Utility AMR (Automatic Meter Reading) System project encompasses the final design, installation and commissioning of a system capable of integrating with our existing automatic meter reading and financial billing systems. This includes upgrades to the Electrical Distribution system infrastructure, in the form of meter upgrades, to incorporate automatic meter reading capabilities system wide. This project will include the installation of a communications system capable of polling 100% of the electric system utility meters on an operator selectable schedule for both maintenance and monthly meter reading purposes. The implementation of this system is the last step in an effort to synchronize the production, distribution and billing portions of the Electric Utility.

**PROJECT NEED:** Results of a survey on Rural Electrical Systems in 2012, conducted by AEA (Alaska Energy Authority), noted that our meter reading abilities were an area to look at for improvement. The AEA in addition to other agencies mandate accuracy between power sales and production, with an expected line loss for our system of about 4%. When Power Cost Equalization (PCE) reports show line losses excessively higher or lower than 4%, an explanation must be provided. Less accuracy may affect the PCE (Power Cost Equalization) rate, which generally covers more than half of residential customers' electrical utility bill. This project will increase monitoring abilities of the system, including, but not limited to the ability to pass on notice of excessive power use to customers, quicker cut in/out of services and reduce "bad" meter reads due to read or input error. Automatic polling will allow meters to be read on a more consistent base, with the ability to disregard time/labor conflicts with weekends, holidays, and weather conditions which currently causes fluctuations of more than a week in the read schedule.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** This project is closely related with existing Water Utility Meter reading system, and existing Power Production SCADA upgrades, as well as integration of all these systems into the City Finance Department. The implementation of a single interdepartmental system between the Electric and Water Utilities will reduce engineering time, implementation costs, construction costs, future maintenance cost and training cost by using a common system. An AMR system will create the ability to accurately synchronize customer billing from the Electric Distribution, with the required governmental agency Electric production reports, creating a more accurate overall picture of power produced and power sold.

# **FY21-25 CMMP**

## **AUTOMATIC METER READ SYSTEM | ELECTRIC**

## **EL18B | CAPITAL PROJECT**

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2017
Engineering/Design: FY 2019
Purchase/Construction: FY 2021



ost Assumptions	
Engineering, Design, Const Admin	19,184
Other Professional Services	32,875
Construction Services	30,527
Machinery & Equipment	320,000
Subtotal	402,586
Contingency (set at 30%)	120,776
TOTAL	523,362
Less Other Funding Sources (Grants, etc.)	-
Total Funding Request \$	523,362

REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS							
	FUNDS	FY21	FY22	FY23	FY24	FY25	Total		
General Fund									
1% Sales Tax									
Grant									
<b>Proprietary Fund</b>	219,362	304,000					523,362		
TOTALS \$	219,362	304,000					523,362		
Requested Funds:									

**PROJECT DESCRIPTION:** This nomination is for the final design, procurement, construction, integration and commissioning of one 1 MW PowerStore PCS (16.5MJ) flywheel system, space for future second flywheel system, and related components.

**PROJECT NEED:** The electrical loads introduced the City's electrical grid by equipment such as large ship to shore cranes are outside the intended loading profile. To counter these rapid changes in load, which at times reach levels of 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 reaction to these changes decreases efficiency and creates undue mechanical and electrical wear on the equipment and distribution system. In addition generation dispatch is often significantly effected due to the inability of the facilities to run in the most efficient configuration possible. The proposed Flywheel system will arrest the rapid changes in the electrical load.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** Design will be accomplished in FY2019 and FY2020. Installation of the Flywheel equipment will be in FY2021. Permitting is not expected for this project. Money for this project will come from the Electrical Proprietary Fund.

### **COST & FINANCING DATA:**

Cost Assumptions						
Other Professional Services	100,000					
Engineering, Design, Construction						
Admin	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					

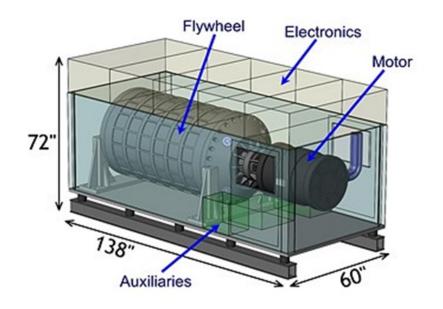
# **FY21-25 CMMP**

## **ELECTRIC ENERGY STORAGE SYSTEM | ELECTRIC**

## **EL19B | CAPITAL PROJECT**

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2019
Engineering/Design: FY 2020
Purchase/Construction: FY 2022



REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS					
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total
General Fund							
1% Sales Tax							
Grant							
Proprietary Fund	650,062		3,549,938				4,200,000
TOTALS \$	650,062		3,549,938				4,200,000
Requested Funds:							

**PROJECT DESCRIPTION:** This project consists of the 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 manufacturers mechanics to determine if engine rebuilds are needed according to the hourly schedule or can be prolonged.

**PROJECT NEED:** These Generator Set rebuilds are needed to maintain our equipment and the reliability of our electrical production. Our Certificate of Fitness from Alaska Energy Authority states that we must keep all electrical generating equipment in good running condition.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** Due to the cost of the engine rebuilds, it has been determined that the cost will be capitalized.

**COST & FINANCING DATA:** 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. A 2% inflation rate has been added each year. Money that is not used for rebuilds by the end of the fiscal year, will be returned to the proprietary fund.

Cost Assumptions	
Repair & Maintenance	\$6,998,785
Construction Services	
Machinery & Equipment	
Subtotal	\$6,998,785
Contingency (30%)	\$2,099,635
Total Funding Request	\$9,098,420

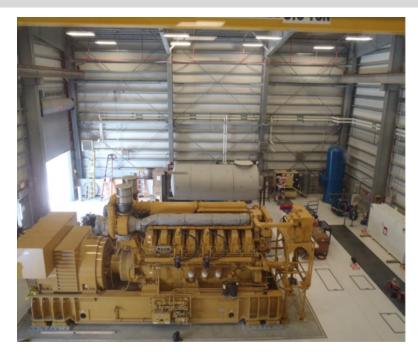
# **FY21-25 CMMP**

## GENERATOR SETS REBUILD | ELECTRIC

### MAJOR MAINTENANCE

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: NA
Engineering/Design: NA
Purchase/Construction: NA



REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund								
1% Sales Tax								
Grant								
Proprietary Fund		1,748,338	1,783,305	1,818,970	1,855,350	1,892,457	9,098,420	
TOTALS \$		1,748,338	1,783,305	1,818,970	1,855,350	1,892,457	9,098,420	
Requested Funds:								

**PROJECT DESCRIPTION:** This project consists of cleaning the Powerhouse seawater cooling line from the intake to the Powerhouse, and extending the intake to deeper water.

**PROJECT NEED:** The seawater cooling line for the Powerhouse needs cleaned out every five years due to marine growth inside the line. Due to the seawater temperatures increasing and congestion from local construction, the cooling water intake needs to be lengthened to a deeper location where the water will be colder. An estimated depth of 20 feet is recommended by the Electrical Masterplan.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** The existing pipe 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 replaced at the end of a 200 linear foot pipe extension out into Unalaska Bay. The pipe would be 30 inch pipe 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. The terminus would be connected to a steel box, the top of which would have a removable grate. There would be a flanged connection at the 45° elbow and another flange connection 20 feet from the elbow to allow a removable section for cleaning and maintenance. There would be another flange connection 100 feet from the terminus to facilitate handling in construction. To prevent any movement of the extension pipe or suction box, pairs of short wide flange beam anchors would be driven into the bay. The first set just out from the 20' section, the second pair would be to one side of the center connection, the third pair would be 50 feet from the box and the fourth pair would be driven through guide bars welded to the side of the box. These anchor beams would be 10 feet long of 12" 53 lb./ft. WFB that would be driven approximately 6 feet into the gravel substrate. A heavy chain going over the pipe would be shackled to the beam flanges to prevent excessive vertical movement in the event that air would be trapped in the pipeline. Prior to installation the existing intake pipe would be cleaned again by drawing the cleanout pig through the line, pumping the mud and any debris from the sump and scraping the marine growth from the inside of the concrete gate support structure.

### **COST & FINANCING DATA:**

Cost Assumptions	
Engineering, Design, Const Admin	40,000
Other Professional Services	10,000
Construction Services	200,000
Machinery & Equipment	67,432
Subtotal	317,432
Contingency (set at 30%)	95,230
TOTAL	412,662
Less Other Funding Sources (Grants, etc.)	-
Total Funding Request \$	412,662

# FY21-25 CMMP

POWERHOUSE COOLING WATER INLET CLEANING AND EXTENSION | ELECTRIC

### MAJOR MAINTENANCE

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2020
Engineering/Design: FY 2022
Purchase/Construction: FY 2023



REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund								
1% Sales Tax								
Grant								
<b>Proprietary Fund</b>			40,000	372,662			412,662	
TOTALS \$			40,000	372,662			412,662	
Requested Funds:								

PROJECT DESCRIPTION: This project is to paint and perform other maintenance to the inside of the Pyramid CT Tank. The 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 of the length of time and type of equipment available to do the work, and the configuration of the tank, complete de-watering has not been practical. Historically, water tanks in this area have had to have the exteriors re-coated every 15-25 years. The CT Tank roof was painted with a finish coat in 2008 after a failed attempt to replace the wind damaged foam insulation in 2000. Anodes were added in 2004 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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** 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

### **COST & FINANCING DATA:**

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

#### FISCAL YEAR FUNDING REQUESTS APPROPRIATED **REVENUE SOURCE FUNDS** FY21 FY22 FY23 FY24 FY25 Total **General Fund** 1% Sales Tax Grant **Proprietary Fund** 100,000 953,000 1,053,000 **TOTALS \$** 100,000 953,000 1,053,000 **Requested Funds:**

# **FY21-25 CMMP**

## CT TANK INTERIOR MAINTENANCE AND PAINTING | WATER

## WA20A | MAJOR MAINTENANCE

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2020
Engineering/Design: FY 2020
Purchase/Construction: FY 2022



### **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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** This project has been discussed for several years. No solid plans are currently in place, however, the general consensus is to cross the creek near the far end of the reservoir and parallel lcy Creek on high ground along the west side. A site survey and engineered plans will determine the best course of a new road segment.

### **COST & FINANCING DATA:**

Monies will come from the Water Fund. Grant opportunities will be sought out once plans and specs are in place. Additional monies will come from the General Fund.

### Tentative Schedule:

**Cost Assumptions** 

FY21, Phase 1: existing staff develops Scope of Work. Funding request \$0.00

FY22, Surveyor will be selected to survey site. Civil engineer will be selected to design the road. Grant opportunities will be sought out. Funding request \$100,000.

FY23, Phase 2: project implementation, construction. Funding request \$1,200,000.

# **FY21-25 CMMP**

## ICY LAKE ROAD RECONSTRUCTION | WATER

### **CAPITAL PROJECT**

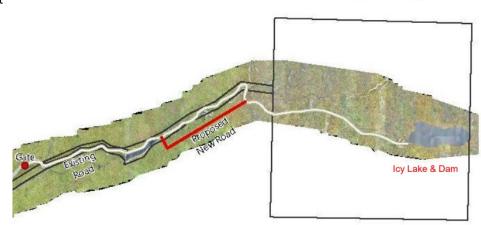
### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2022

Engineering/Design: FY 2022 Purchase/Construction: FY 2023

Icy Lake Rd

Proposed New Road Segment



TO	TAL 1,300,000
Contingency (set at 30%)	300,000
Subto	otal 1,000,000
Machinery & Equipment	0
Construction Services	900,000
Other Professional Services	0
Engineering, Design, Const Admir	100,000

REVENUE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS								
SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total			
General Fund										
1% Sales Tax										
Grant										
<b>Proprietary Fund</b>			100,000	1,200,000			1,300,000			
TOTALS \$			100,000	1,200,000			1,300,000			
Requested Funds:										

**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 Violet treatment
  process to operate more efficiently.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** A "Certificate to Construct" and a "Certificate to Operate" are required from ADEC, obtained through application by the designing engineer.

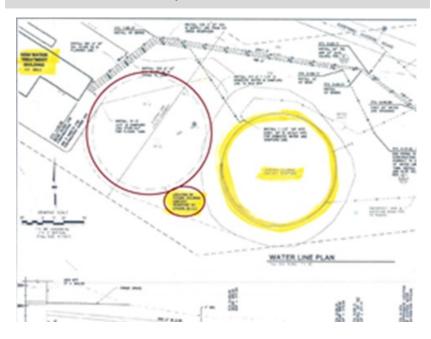
# FY21-25 CMMP

## **PYRAMID WATER STORAGE TANK | WATER**

## WA501 | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2014
Engineering/Design: FY 2023
Purchase/Construction: FY 2024



### **COST & FINANCING DATA:**

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

REVENUE APPROF	APPROPRIATED						
SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total
<b>General Fund</b>							
1% Sales Tax							
Grant							
<b>Proprietary Fund</b>	625,000			603,750	7,906,193		9,134,943
TOTALS \$	625,000			603,750	7,906,193		9,134,943
Requested Funds:							

**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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** 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.

**COST & FINANCING DATA:** A ROM for this project would be \$900,000 - \$1,100,000, assuming the existing crane and Chlorine Bay in the PWTP can be utilized with the new system. A heated area for salt storage may be required, preferably as part of the existing PWTP structure. Annual salt use for storage planning purposes will be about 15 pallets.

# **FY21-25 CMMP**

## PYRAMID WATER TREATMENT PLANT CHLORINE UPGRADE | WATER

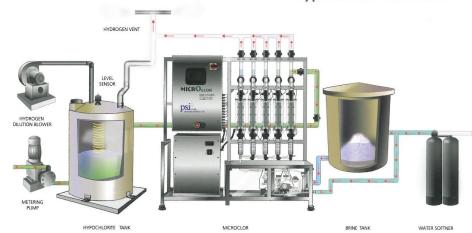
## WA501 | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2021
Engineering/Design: FY 2021

Purchase/Construction: FY 2022

### **Hypochlorite Generator**



Cost Assumptions	
Other Professional Services	\$25,000.00
Engineering, Design, Con- struction 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

REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund								
1% Sales Tax								
Grant								
Proprietary Fund		100,000	881,500				981,500	
TOTALS \$		100,000	881,500				981,500	
Requested Funds:								

**PROJECT DESCRIPTION:** This project consists of replacing and relocating the oil separator in the underground vault in the Baler Building, upgrading lift station 10.5, replacing associated piping, and upgrading electrical wiring.

PROJECT NEED: When the Baler Building was constructed in 1997, it included an underground concrete vault to collect water and other liquids. The vault serves as a sump and houses an oil separator. Over the years, the oil separator has become worn and has now failed. It's underground location makes it exceptionally difficult and unsafe to service and maintain. Drain lines to the sump and oil separator require daily cleaning while the discharge line has failed necessitating a temporary sump pump with bypass hose to empty the sump on a daily basis. The oil separator has stopped functioning altogether allowing 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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** 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.

### **COST & FINANCING DATA:**

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.)	-

# **FY21-25 CMMP**

## **OIL SEPARATOR AND LIFT STATION REPLACEMENT | SOLID WASTE**

### MAJOR MAINTENANCE

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2020 gineering/Design: FY 20

Engineering/Design: FY 2020 Purchase/Construction: FY 2022









REVENUE SOURCE	APPROPRIATED	F	ISCAL YEA	CAL YEAR FUNDING REQUESTS					
	FUNDS	FY21	FY22	FY23	FY24	FY25	Total		
General Fund									
1% Sales Tax									
Grant									
Proprietary Fund			971,100				971,100		
TOTALS \$			971,100				971,100		
Requested Funds:									

**PROJECT DESCRIPTION:** The pre-design, design, and construction of a Gasifier to incinerate garbage.

**PROJECT NEED:** The Landfill cells are rapidly reaching capacity. It is estimated that we have five years to come up with another way to deal with the City's garbage or 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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** Combination of grant funds and Landfill proprietary funds. Future funding is to be determined at a later date.

### **COST & FINANCING DATA:**

## **Cost Assumptions**

8,320,000
1,920,000
6,400,000
2,500,000
3,000,000
100,000
800,000

# **FY21-25 CMMP**

## SOLID WASTE GASIFIER | SOLID WASTE

### **CAPITAL PROJECT**

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2021
Engineering/Design: FY 2022
Purchase/Construction: FY 2025



Drysnus Coupes	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund								
1% Sales Tax								
Grant								
Proprietary Fund		100,000	200,000	400,000		7,620,000	8,320,000	
TOTALS \$		100,000	200,000	400,000		7,620,000	8,320,000	
Requested Funds:								

**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. See attachment for general area of dredge location. The City will work with the Corps of Engineers to help fund, design, construct, and maintain this project. The first step in the process is conducting the biological assessments, understand the impact of dredging to beachfronts inside of the harbor, and working on application with the Corps of Engineers to partner for the dredging. This dredging project will allow deeper draft vessels to enter into Dutch Harbor including tankers, container ships and breakbulk vessels. This project will also reduce delayed arrival and departure of current vessels entering into to Dutch Harbor due to storm surge and swell in the channel. The current estimate to be removed is 23,400 CY.

**PROJECT NEED:** Due to a bar that crosses the entrance channel vessels entering the port are limited by their draft rather than their need for services the community can provide. Numerous vessels passing the community cannot enter our port. Depending upon sea conditions the depth under keel for vessels currently utilizing the port can be as little as one meter according to the Alaska Marine Pilots. In storm conditions especially any northerly wind the sea height can make this situation worse by causing vessels to pitch resulting in contact with the sea floor where the bar is located. This represents both a safety concern as well as an economic constraint upon the community. Dredging the entrance channel to a sufficient depth and width would alleviate this problem.

DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS): This project has been included on the Senate Bill WRDA. The City is working through the Cost Benefit Analysis of the project. This is necessary to show the Corps that this project has benefit to the nation and worthy of the Corps of Engineers time and expenses. We continue to move forward with understanding some of the other key pieces of the project that will keep it moving forward efficiently. Some of the pieces will be the biological assessment and impacts of dredging and any impacts dredging may have on the inner harbor. The overall cost is to be evaluated. The City intends on working with the Corps of Engineers to accomplish this project. The immediate funding request is for feasibility and biological information required for the Corps of Engineers applications. We will also need to understand if the change in the contour of the channel entrance as any impact inside the harbor including beachfront.

#### **COST & FINANCING DATA:**

	Cost Assumptions
1,500,000	Other Professional Services
1,000,000	Engineering, Design, Construction Admin
34,936,750	Construction Services
	Machinery & Equipment
37,436,750	Subtotal
0	Contingency (0%)
37,436,750	Total Funding Request
;	I otal Funding Request

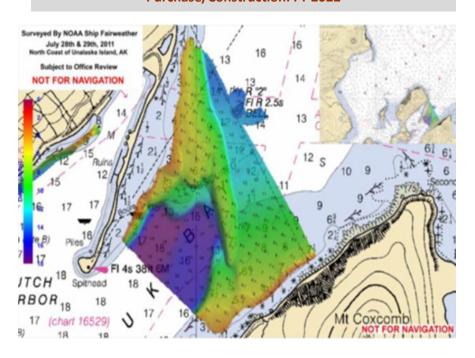
# FY21-25 CMMP

## **ENTRANCE CHANNEL DREDGING | PORTS**

## PH201 | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2019
Engineering/Design: FY 2020
Purchase/Construction: FY 2022



REVENUE	APPROPRIATED		FISCAL Y	EAR FUI	NDING RE	QUESTS	
SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total
<b>General Fund</b>	2,500,000		8,734,000				11,234,000
1% Sales Tax							
Grant			26,202,750				26,202,750
<b>Proprietary Fund</b>							
TOTALS \$	2,500,000		34,936,750				37,436,750
Requested Funds:							

**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. This project is proposed to complement other pending capital projects in the Port.

With the dredging of the entrance channel larger vessels will be able to enter into Dutch Harbor. 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 Dutch Harbor. We are proposing that in concert with the Dredging at the UMC we also dredge in front of the LCD. The LCD is scheduled to handle some of the regular customers using the Unalaska Marine Center. These customers will be displaced during construction of Positions 3 and 4. 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 draw 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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** This dredging project is in support of both the 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.

### **COST & FINANCING DATA:**

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

# **FY21-25 CMMP**

## LCD & UMC DREDGING | PORTS

## PH602 | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2019

Engineering/Design: FY 2023
Purchase/Construction: FY 2023



LIGHT CARGO DOCK, BARGE, TRAMPER
BARGE IS BEING USED AS A "SPACER" TO PROVIDE DEPTH FOR
TRAMPER

REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund								
1% Sales Tax								
Grant								
Proprietary Fund	109,650			2,544,495			2,654,145	
TOTALS \$	109,650			2,544,495			2,654,145	
Requested Funds:								

**PROJECT DESCRIPTION:** Port Rescue Boat Overhaul

**PROJECT NEED:** The Tide Breaker is the City rescue response vessel that was purchased in 2005. This paid for in part with Homeland Security Funds. As with all vehicles there is a useful life. This replacement plan will enable us to replace the Tide Breaker after 20 years of service. The maintenance schedule is being met and the vessel is currently in good condition. However, to maintain maximum capability, and provide appropriate support for emergency responses, search and rescue, marine security functions it is recommended that we begin planning to overhaul the vessel.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** No permits required. The cost below is an estimate and we will search for grant opportunities to offset Port Fund expenses.

### **COST & FINANCING DATA:**

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

# **FY21-25 CMMP**

## PORT RESCUE BOAT OVERHAUL | PORTS

### **ROLLING STOCK**

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2022
Engineering/Design: FY 2022
Purchase/Construction: FY 2022



REVENUE SOURCE	APPROPRIATED		FISCAL YEAR FUNDING REQUESTS				
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total
General Fund							
1% Sales Tax							
Grant							
Proprietary Fund			100,000				100,000
TOTALS \$			100,000				100,000
Requested Funds:							

**PROJECT DESCRIPTION:** This will purchase and install a restroom for the Unalaska Marine Center. Water and Sewer have been stubbed in at UMC for the purpose of installation of public restrooms for dock workers and passengers. By Unalaska Code requires us to plumb into City services if available. These services are available at UMC

**PROJECT NEED:** For years dock workers have used portable toilets and these outhouses require service from the Waste Water Treatment Staff. This will provide a minimum of four toilets and keep us compliant with City Code and provide reasonable facilities and better working conditions for the employees.

**DEVELOPMENT PLAN & STATUS (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** This is a project that will be based off of a preexisting design and the restroom will tie into a prepoured foundation connect into existing utility services. The current cost assumption is from Public Works, at 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.

### **COST & FINANCING DATA:**

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							

# **FY21-25 CMMP**

## RESTROOM UNALASKA MARINE CENTER | PORTS

### CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2022
Engineering/Design: FY 2023
Purchase/Construction: FY 2024



REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund								
1% Sales Tax								
Grant								
Proprietary Fund				50,000	480,160		530,160	
TOTALS \$				50,000	480,160		530,160	
Requested Funds:								

**PROJECT DESCRIPTION:** This project is an additional phase to the Robert Storrs Float improvement project. It will remove the existing A and B Floats at the Harbor and reconfigure the Harbor to accommodate the new float system ADA gangway and create uplands for parking and a public restroom. It will also include a fire suppression system, electric and year-round water supply to Harbor 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, a reconfiguration of A and B Floats will at minimum create 30 additional slips plus linear tie options to accommodate part of the 37 vessel waiting list. Reconfiguration will also allow for development of the uplands for a certain amount of required parking and a public restroom. Because the current floats were relocated, they were arranged in the harbor based on the materials at hand and not with consideration to the best use of the basin. In order to accommodate the vessel demand at the Robert Storrs Harbor, reconfiguration 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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** 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.

## COST & FINANCING DATA:

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

# **FY21-25 CMMP**

ROBERT STORRS SMALL BOAT HARBOR IMPROVEMENTS (A & B FLOATS) | PORTS

## PH905 | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2019

Engineering/Design: FY 2020 Purchase/Construction: FY 2022



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



REVENUE SOURCE	APPROPRIATED	PROPRIATED FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund								
1% Sales Tax								
Grant			3,250,000				3,250,000	
Proprietary Fund	650,000		6,045,000				6,695,000	
TOTALS \$	650,000		9,295,000				9,945,000	
Requested Funds:								

**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 calls 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 (INCLUDE PERMIT AND UTILITY REQUIREMENTS):** ROM for geotechnical is about \$300 and ROM for design is \$600.

### **COST & FINANCING DATA:**

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

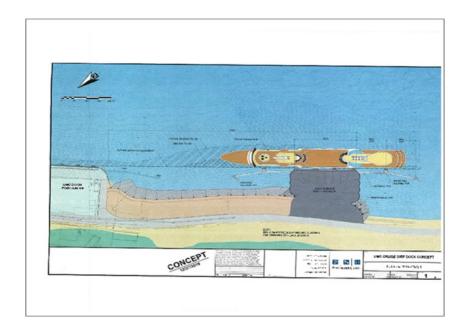
# **FY21-25 CMMP**

## **UMC CRUISE SHIP TERMINAL | PORTS**

## PH20A | CAPITAL PROJECT

### **ESTIMATED PROJECT & PURCHASE TIMELINE**

Pre Design: FY 2020
Engineering/Design: FY 2023
Purchase/Construction: FY 2025



REVENUE SOURCE	APPROPRIATED	FISCAL YEAR FUNDING REQUESTS						
REVENUE SOURCE	FUNDS	FY21	FY22	FY23	FY24	FY25	Total	
General Fund								
1% Sales Tax								
Grant								
Proprietary Fund	390,000			910,000		17,290,000	18,590,000	
TOTALS \$	390,000			910,000		17,290,000	18,590,000	
Requested Funds:								

		Rolling Stock Replacement Plan	5 Year	Look	Ahea	d	
Vehicle #	Class	Function / Description	FY21	FY22	FY23	FY24	FY25
PW4212	GP	4x4 F350 Flatbed Sell - Replace w/ F150 crew cab	\$40,000				
PW1992	GP	F-250 Flatbed Sell - Replace w/ F550 4x4 Rollback		\$100,000			
PW0688	GP	4x4 F150 Ford Sell - DNR	DNR				
PW7449	GP	4x4 F150 Ford Sell - Replace w/ New F150 4dr w canopy	\$45,000				
CH7414	GP	4x4 Ford Explorer Sell - DNR - Blue Ranger is CH Floater	DNR				
VT2	HE	Volvo Vactor Truck Transfer to LF - Replace w/ New for WW	\$380,000				
SD5275	GP	Flatbed F-350 Sell - Replace w/ New	\$50,000				
PW6372	GP	1 ton Flatbed w/plow / salt/sand spreader		\$60,000			
PW4572	GP	One Ton Service Truck GMC - Carps			\$60,000		
W7587	GP	4x4, Pickup			\$40,000		
New	GP	4x4 F250 Extended/SuperCab, Stahl Utility bed w/ Boxes	\$45,000				
E5629	GP	1 Ton Pickup w/svc Sell - Replace w/ New F350 Gas w/Winch	\$65,000				
UPD5563	GP	4x4 Expedition		\$60,000			
UPD5565	GP	4x4 Expedition		\$60,000			
UPD9826	GP	4x4, Expedition XLT Transfer to ACO - Replace w/ Interceptor	\$65,000	\$65,000			
UPD0232	GP	4x4 Explorer ACO Sell - Replace w/ Chief's Explorer	\$0	· ,			
E1214	HE	Crane Truck		\$280,000			
DT6	HE	Dump Truck			\$200.000		
DT7	HE	Dump Truck		\$160,000			
WT2	HE	Water Tanker - Autocar 4000 gal				\$200,000	
L1	HE	Loader, Cat IT28			\$250,000	,	
DT2	HE	Dump Truck w/ Snow Plow					\$200,000
E6	HE	Knuckle Boom Truck				\$150,000	<u> </u>
RG2	HE	Cat Grader 14H			\$600,000		
FL4	HE	Forklift					\$75,000
BH1	HE	Backhoe 4X4			\$248,000		
HML1	HE	908 CAT Loader			. ,	\$250,000	
S2878	HE	Fuel Truck F-600		\$100,000			
BH3	HE	CAT Mini Excavator				\$250,000	
CC2	HE	Volvo Compactor				\$250,000	
UFD3535	HE	Pumper/Tender				\$250,000	
BD6	HE	CAT D4 Dozer					\$350,000
PW5954	HE	4x4, Flatbed F700		\$65,000			
T2	HE	Tractor, 5th Wheel		\$100,000			
LF0750	HE	Flatbed with Lift				\$80,000	
PW4751	HE	Flatbed with Box		\$80,000			
FL2	EQ	Forklift - Hyster E30XL		\$80,000			
PUMP5780	EQ	Fire Pump		\$50,000			
TR2	EQ	Trailer (Scissor lift)		\$50,000			
GW1	EQ	Welder		\$25,000			
AC3	EQ	Air Compressor		\$50,000			
TR17	EQ	Utility Trailer		\$50,000			
HB1	EQ	Asphalt Hot Box		\$150,000			
Unknown	EQ	Genie Man Lift Sell - Replace w/ Genie 30' Reach	\$14,000				
New	EQ	Kubota USED BUT NEW TO FLEET	\$12,500				
		Totals		\$1.585.000	\$1 398 000	\$1,430,000	\$625,000

	FY Totals By Fund	FY21	FY22	FY23	FY24	FY25
GENERAL FUND		\$176,500	\$1,205,000	\$1,110,000	\$950,000	\$625,000
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ELECTRIC FUND		\$65,000	\$380,000	\$248,000	\$150,000	
WATER FUND		\$45,000	\$0	\$40,000	\$0	
WASTEWATER FU	JND	\$430,000	\$0	\$0	\$0	
SOLID WASTE FU	ND	\$0	\$0	\$0	\$80,000	
PORTS / HARBOR	FUND	\$0	\$0	\$0	\$250,000	
		\$716.500	\$1.585.000	\$1.398.000	\$1,430,000	\$625,000