Regular Meeting
Thursday, November 10, 2022
6:00 p.m.

Unalaska City Hall
Council Chambers
43 Raven Way

Council Members
Thomas D. Bell
Darin Nicholson
Daneen Looby

Council Members
Dennis M. Robinson
Alejandro R. Tungul
Shari Coleman

To Provide a Sustainable Quality of Life
Through Excellent Stewardship of Government

UNALASKA CITY COUNCIL

P. O. Box 610 ▪ Unalaska, Alaska 99685
Tel (907) 581-1251 ▪ Fax (907) 581-1417 ▪ www.ci.unalaska.ak.us

Mayor: Vincent M. Tutiakoff Sr. **City Manager:** Chris Hladick
City Clerk: Marjie Veeder, mveeder@ci.unalaska.ak.us

COUNCIL MEETING ATTENDANCE

The community is encouraged to attend meetings of the City Council:

- In person at City Hall
- Online via ZOOM (link, meeting ID & password below)
- By telephone (toll and toll free numbers, meeting ID & password below)
- Listen on KUCB TV Channel 8 or Radio Station 89.7

PUBLIC COMMENT

The Mayor and City Council value and encourage community input at meetings of the City Council. There is a time limit of 3 minutes per person, per topic. Options for public comment:

- In person
- By telephone or ZOOM - notify the City Clerk if you'd like to provide comment using ZOOM features (chat message or raise your hand); or *9 by telephone to raise your hand; or you may notify the City Clerk during regular business hours in advance of the meeting
- Written comment is accepted up to one hour before the meeting begins by email, regular mail, fax or hand delivery to the City Clerk, and will be read during the meeting; include your name

ZOOM MEETING LINK: https://us02web.zoom.us/j/85203975430
Meeting ID: 852 0397 5430 / **Passcode:** 977526

TELEPHONE: Meeting ID: 852 0397 5430 / **Passcode:** 977526
Toll Free numbers: (833) 548-0276; or (833) 548-0282; or (877) 853-5247; or (888) 788-0099
Non Toll Free numbers: (253) 215-8782; or (346) 248-7799; or (669) 900-9128

UNALASKA CRAB, INC.

Annual Meeting Agenda

1. Call to order
2. Adjourn

Board of Directors Meeting Agenda

1. Call to order
2. Roll call
3. Adopt agenda
4. Approve minutes - November 9, 2021 Board of Directors Meeting
5. Resolution 2022-01: Election of Officers
6. Adjourn

UNALASKA CITY COUNCIL AGENDA

1. **Call to order**
2. **Roll call**
3. **Pledge of Allegiance**
4. **Recognition of Visitors**
5. **Adoption of Agenda**
6. **Approve Minutes of Previous Meetings:** October 21, 2022 and October 25, 2022
7. **Reports**
    a. Financials for July, August and September 2022
    b. City Manager
8. **Community Input & Announcements** *Members of the public may provide information to council or make announcements of interest to the community. Three-minute time limit per person.*
9. **Public Comment on Agenda Items** *Time for members of the public to provide information to Council regarding items on the agenda. Members of the public may also speak when the issue comes up on the regular agenda by signing up with the City Clerk. Three-minute time limit per person.*
10. **Public Hearing** *Members of the public may testify about any item set for public hearing. Three-minute time limit per person.*
    a. Ordinance 2022-18: Amending Sections of Title 17, Buildings and Construction, of the Unalaska Code of Ordinances, by Adopting Portions of the 2018 Edition of the Uniform Plumbing Code, the 2020 Edition of the National Electrical Code, and the 2021 Edition of the International Residential Code
    b. Ordinance 2022-19: Amending Title 3, Personnel, to add a longevity bonus, make executives eligible for the longevity bonus, provide latitude to the City Manager to hire above the midpoint of the wage range, and to increase moving expenses available for new employees
    c. Ordinance 2022-20: Creating Budget Amendment #3 to the Fiscal Year 2023 Budget to fund increases in wages, fringe benefits and associated State of Alaska PERS contributions for unrepresented employees
11. **Work Session** *Work sessions are for planning purposes, or studying and discussing issues before the Council.*
    a. Present Wind Study Report – Doug Vaught, V3 Energy
    b. Present Captains Bay Road Development Plan – Bil Homka, Assistant City Manager
    c. Unalaska Fishermen Memorial by Rusting Man Foundation – Karel and Marie Machalek
    d. Discuss Federal Legislative Priorities – Chris Hladick, City Manager
12. **Regular Agenda** *Persons wishing to speak on regular agenda items must sign up with the City Clerk. Three-minute time limit per person.*

a. Ordinance 2022-18: 2nd Reading, Amending Sections of Title 17, Buildings and Construction, of the Unalaska Code of Ordinances, by Adopting Portions of the 2018 Edition of the Uniform Plumbing Code, the 2020 Edition of the National Electrical Code, and the 2021 Edition of the International Residential Code

b. Ordinance 2022-19: 2nd Reading, Amending Title 3, Personnel, to add a longevity bonus, make executives eligible for the longevity bonus, provide latitude to the City Manager to hire above the midpoint of the wage range, and to increase moving expenses available for new employees

c. Ordinance 2022-20: 2nd Reading, Creating Budget Amendment #3 to the Fiscal Year 2023 Budget to fund increases in wages, fringe benefits and associated State of Alaska PERS contributions for unrepresented employees

d. Ordinance 2022-21: 1st Reading, Retaining Certain Tax Foreclosed Property for a Public Purpose

e. Resolution 2022-43: Identifying the City of Unalaska's Federal Priorities

13. **Council Directives to City Manager**

14. **Community Input & Announcements** *Members of the public may provide information to council or make announcements of interest to the community. Three-minute time limit per person.*

15. **Executive Session**

    a. Discuss City Manager Applicants

    b. Update regarding lawsuits against the City of Unalaska

16. **Adjournment**

UNALASKA CRAB, INC.
MINUTES
November 9, 2021

Annual Meeting

The chair called the Annual Meeting of Unalaska Crab, Inc., to order at 6:01 p.m. and made this statement: A quorum for the annual meeting is 20% of the number of voters in the most recent local election. In the October 2021 municipal election there were 510 ballots cast, so a quorum is 102 registered voters. I don't see that many people present tonight. Therefore, we do not have a quorum for this meeting and the annual meeting of Unalaska Crab, Inc. will be adjourned.

Robinson moved to adjourn into a Board of Directors Meeting; second by Tungul. Roll call vote: Coleman – yes; Looby – yes; Nicholson – yes; Robinson – yes; and Tungul yes. Motion passed unanimously.

Meeting adjourned at 6:02 p.m.

Board of Directors Meeting Minutes

1. **Call to order.** The corporation president, Vincent M. Tutiakoff, Sr., called the meeting to order at 6:02pm.

2. **Roll call.** Board Members Looby, Robinson, Tungul, Coleman and Tutiakoff present in person; Board Member Nicholson present via ZOOM; Board Member Bell absent. Quorum established.

3. **Adoption of agenda.** Robinson moved to adopt the agenda; second by Looby. There being no objection, the agenda was adopted by consensus.

4. **Approval of minutes.** Robinson moved to approve the minutes of September 28, 2021; second by Tungul. There being no objection, the minutes approved by consensus.

5. **Resolution 2021-02:** Election of Officers

   Robinson moved to adopt UCI Resolution 2021-02; second by Looby.

   Robinson moved to amend the resolution to add the following names to the Resolution; second by Looby:

   President Vincent M. Tutiakoff, Sr.

   Vice President Dennis M. Robinson

   Secretary/Treasurer Erin M. Reinders

Roll call vote: all board members presented voted in the affirmative; UCI Resolution 2021-02 unanimously adopted.

6. **Report from Fisheries Consultant**. Frank Kelty gave a report.

7. **Adjourn.** Having completed all items on the agenda, Mr. Tutiakoff adjourned the meeting at 6:22pm.

These minutes approved at the Board of Directors Meeting on November 10, 2022.

_____
Secretary

DRAFT

UNALASKA CRAB, INC.
RESOLUTION NO. 2022-01

WHEREAS, Unalaska Crab, Inc. has adopted Articles of Incorporation and been issued a Certificate of Incorporation by the State of Alaska; and

WHEREAS, Article IV, Section 1 of the Bylaws of Unalaska Crab, Inc. provide for election of a President, Vice-President, Secretary and Treasurer as officers of the Corporation; and

WHEREAS, the election of officers is to be held at the first meeting of the Board of Directors held after the Annual Meeting of the members of the Corporation; and

WHEREAS, the 2022 Annual Meeting of the corporation has been held.

NOW THEREFORE, IT IS HEREBY RESOLVED that _____ shall serve as President of the Corporation, _____ shall serve as Vice-President of the Corporation and _____ shall serve as Secretary and Treasurer of the Corporation until the next annual election of officers to be held at the first meeting of the Board following the 2023 Annual Meeting of members.

DULY ADOPTED at a meeting of the Board of Directors of Unalaska Crab, Inc., on November 10, 2022.

UNALASKA CRAB, INC.

_____
President

ATTEST:

_____
Secretary

MEMORANDUM TO COUNCIL

To: Board of Directors of Unalaska Crab, Inc.
From: Marjie Veeder, City Clerk
Date: November 10, 2022
Re: Resolution 2022-01, Election of Officers

Unalaska Crab, Inc. ("Corporation") was formed in 2005 to serve as the eligible crab community of Unalaska, Alaska, pursuant to 50 CFR part 680.

According to the Bylaws of the Corporation:

a) The Corporation shall hold an annual meeting.

b) The Members of the Corporation are the registered voters of Unalaska.

c) The Board of Directors are the elected Mayor and City Council Members.

d) The Officers of the Corporation (President, Vice President, Secretary and Treasurer) are to be elected annually at the first meeting of the Board of Directors held after the Annual Meeting and hold office until a successor is elected. Any two or more offices may be held by the same person, except the offices of President and Secretary shall not be held by the same person. Officers do not have to be members of the Board of Directors.

The present officers, elected November 9, 2021, are:
President – Vincent M. Tutiakoff, Sr.
Vice President – Dennis Robinson
Secretary and Treasurer – Erin Reinders

It is suggested that a motion be made and seconded to adopt Resolution 2022-01, followed by a motion to amend the resolution to insert the names of persons nominated as President, Vice President and Secretary/Treasurer.

Special Meeting
Friday, October 21, 2022
6:00 p.m.

Unalaska City Hall
Council Chambers
43 Raven Way

Council Members
Thomas D. Bell
Darin Nicholson
Daneen Looby

Council Members
Dennis M. Robinson
Alejandro R. Tungul
Shari Coleman

UNALASKA CITY COUNCIL

P. O. Box 610 ▪ Unalaska, Alaska 99685
Tel (907) 581-1251 ▪ Fax (907) 581-1417 ▪ www.ci.unalaska.ak.us

Mayor: Vincent M. Tutiakoff Sr. **City Manager:** Chris Hladick
City Clerk: Marjie Veeder, mveeder@ci.unalaska.ak.us

MINUTES

1. **Mayor Pro Tem.** Council Member Coleman appointed Mayor Pro Tem.
2. **Call to order.** Mayor Pro Tem called the special meeting of the Unalaska City Council to order at 6:01 p.m.
3. **Roll call.** City Clerk called the roll. The Mayor, Vice Mayor and all council members were present, with Tutiakoff, Robinson and Tungul attending via telephone conference call.
4. **Adoption of Agenda.** Looby moved to adopt the agenda; second by Bell. There being no objection, the agenda was adopted.
5. **Executive Session.** Nicholson moved to go into Executive Session to discuss with and provide direction to attorneys representing the City in pending litigation, the immediate public discussion of which may tend to adversely affect the legal position of the City. Present in Executive Session will be the Mayor, all Council Members, attorneys Clinton Campion and Sam Severin, along with City Manager Chris Hladick (telephonically), Acting City Manager Marjie Veeder, HR Manager Amy Stanford and Risk Manager Debra Zueger. Second by Looby. There being no objection, Mayor Pro Tem announced commencement of executive session at 6:02 p.m.
    a. Merrion v. City of Unalaska
6. Council Member bell requested to be recused from discussion on the matter due to a perceived conflict of interest. Council discussion. The Mayor allowed the recusal and Bell departed the meeting at 6:19 p.m.
7. Council discussion in Executive Session.
8. Council came out of Executive Session at 7:02 p.m.; no formal action taken.
9. **Adjournment.** Having completed all items on the agenda, Mayor Pro Tem adjourned the meeting at 7:03 p.m.

These minutes were approved by the Unalaska City Council on November 10, 2022.

_____
Marjie Veeder, CMC
City Clerk

DRAFT

Regular Meeting
Tuesday, October 25, 2022
6:00 p.m.

Unalaska City Hall
Council Chambers
43 Raven Way

Council Members
Thomas D. Bell
Darin Nicholson
Daneen Looby

Council Members
Dennis M. Robinson
Alejandro R. Tungul
Shari Coleman

UNALASKA CITY COUNCIL

P. O. Box 610 ▪ Unalaska, Alaska 99685
Tel (907) 581-1251 ▪ Fax (907) 581-1417 ▪ www.ci.unalaska.ak.us

Mayor: Vincent M. Tutiakoff Sr. **City Manager:** Chris Hladick
City Clerk: Marjie Veeder, mveeder@ci.unalaska.ak.us

MINUTES

1. **Call to order.** Mayor Tutiakoff called the regular meeting of the Unalaska City Council to order on October 25, 2022, at 6:00 p.m.

2. **Roll call.** The City Clerk called the roll. The Mayor and all Council Members were present, with Tungul attending remotely. Mayor announced establishment of a quorum.

   Robinson read the City's Mission Statement: To provide a sustainable quality of life through excellent stewardship of government.

3. **Pledge of Allegiance.** Bell led the Pledge of Allegiance.

4. **Recognition of Visitors.** No particular recognitions made.

5. **Oath of Office.** The City Clerk administered the oath of office for Mayor Tutiakoff and Council Members Nicholson and Looby.

6. **Appointment of Vice Mayor.** Looby moved to appoint Robinson as Vice Mayor with second by Bell. Roll call vote: all Council Members voted in the affirmative, appointing Robinson as Vice Mayor for a one year term.

7. **Mayoral Proclamation.** The Mayor entered his proclamation declaring November 1, 2022 as Extra Mile Day in Unalaska.

8. **Adoption of Agenda.** Robinson moved to adopt the agenda with second by Nicholson. There being no objection, the Mayor announced the agenda adopted.

9. **Approve Minutes of Previous Meetings.** Robinson moved to approve the proposed minutes of the council meetings held October 11 and 13, 2022, as presented, with second by Looby. There being no objection, the Mayor announced the minutes approved.

10. **City Manager Report.** Written report included in the packet. Assistant City Manager Homka presented an overview; Interim Manager Chris Hladick, via Zoom, commented on federal and state priorities. No questions from Council.

11. **Community Input & Announcements.** Mayor provided an opportunity for community input and announcements, which were provided, as follows:

    a. PCR Director Roger Blakeley made announcements for PCR programs
    b. Bil Homka commented about the successful community swim meet

c. City Clerk announced the State's November 8 mid-term election and the availability of absentee voting at City Hall through November 7
d. City Clerk announced the next Council meeting will be November 10 (not November 8)
e. Frank Kelty announced Aleutian Airways' inaugural flight to Unalaska on November 16, 2022

12. **Public Comment on Agenda Items.** Mayor provided an opportunity for public comment on agenda items; no comments offered.

13. **Work Session**. Nicholson moved to go into work session with second by Robinson. There being no objection, work session began at 6:18 p.m.

    a. The Mayor introduced a request from crab boat owners for relief from moorage fees at the Carl Moses Harbor. Mr. Homka invited Ports Director McLaughlin to comment and answer Council questions. Council discussion and request for further information.

    b. Mr. Hladick began the discussion of Ordinances 2022-19 and 2022-20, the proposed wage increase and longevity bonus for unrepresented employees; increase of moving allowance and latitude to hire above midpoint to aid recruitment; and related budget amendment to fund wage increase and longevity bonus. Council discussion and request for further information.

    Robinson moved to return to regular session with second by Nicholson. There being no objection, back in regular session at 6:56 p.m.

14. **Consent Agenda**. Robinson moved to adopt the consent agenda with second by Nicholson. Roll call vote: all Council Members voted in the affirmative, adopting the Consent Agenda (approving Resolution 2022-41).

    a. Resolution 2022-41: Supporting full funding for the State of Alaska Municipal Harbor Facility Grant Program in the Fiscal Year 2024 State Capital Budget in the amount of $8,236,815

15. **Regular Agenda**

    a. Ordinance 2022-19: 1st Reading, Amending Title 3, Personnel, to add a longevity bonus, make executives eligible for the longevity bonus, provide latitude to the City Manager to hire above the midpoint of the wage range, and to increase moving expenses available for new employees

    Robinson moved to introduce Ordinance 2022-19 and schedule it for public hearing and second reading on November 10, 2022; second by Nicholson.

    Council discussion.

    Looby moved to amend Ordinance 2022-19, Section 2, Longevity Bonus:

    - to add a new paragraph (A) to read "Regular full-time Executive Employees shall be paid a Longevity Bonus of $1,000 per consecutive year of service starting at year 3, then year 5 and every 5 years thereafter"; and

    - to change existing paragraph (A) to paragraph (B) for non-executive employees, and increase the year 5 bonus to $5,000 in subparagraph (2); and

    - to change subparagraph (4) to read "On the employee's fifteen (15) year employment anniversary and each subsequent 5 year employment anniversary thereafter: $10,000"; and

- to delete the last phrase of existing paragraph (C): "… and then $2,000 each subsequent employment anniversary thereafter"; and
- to renumber the remaining paragraphs as needed to maintain the sequence.

Second by Robinson.

Council discussion.

Roll call vote on the amendment: Coleman – no; Bell – no; Looby – yes; Nicholson – yes; Tungul – yes; and Robinson – yes. Motion approved 4-2.

Continued Council discussion.

Roll call vote on the main motion: all Council Members voted in the affirmative, scheduling the public hearing and second reading for Ordinance 2022-19 for November 10, 2022.

b. Ordinance 2022-20: 1st Reading, Creating Budget Amendment #3 to the Fiscal Year 2023 Budget to fund increases in wages, fringe benefits and associated State of Alaska PERS contributions for unrepresented employees

Robinson moved to introduce Ordinance 2022-20 and schedule it for public hearing and second reading on November 10, 2022; second by Nicholson.

Council discussion.

Roll call vote: all Council Members voted in the affirmative, scheduling Ordinance 2022-20 for public hearing and second reading on November 10, 2022.

c. Resolution 2022-42: In support of the exclusion of commercial fisheries management from the objectives in the potential establishment of the Heart of the Ocean Marine Sanctuary off the coast of St. Paul Island; and authorizing the Mayor to send Resolution 2022-42 to NOAA with proposed letter

Robinson moved to adopt Resolution 2022-42 with second by Nicholson.

Council discussion.

Fisheries Consultant Frank Kelty commented.

Roll call vote: all Council Members voted in the affirmative, approving the motion.

d. Travel approval

i. AML Annual Local Government Conference, Dec. 7-9, Anchorage.

Robinson moved to approve travel to the AML Local Government Conference for the Mayor and up to three Council Members; second by Bell. Council discussion.

Robinson moved to amend the motion to insert the names of Mayor Tutiakoff, and Council Members Coleman and Robinson, with second by Nicholson. All Council Members voted in the affirmative to approve the amendment.

Roll call vote on the main motion: all Council Members voted in the affirmative, approving the motion.

ii. Federal Lobbying, December 12-14, Washington, DC

Robinson moved to approve travel to Washington DC for federal lobbying for the Mayor and up to three Council Members; second by Looby. Council discussion.

Robinson moved to amend the motion to insert the names of Mayor Tutiakoff, and Council Members Coleman and Looby, with second by Looby. All Council Members voted in the affirmative to approve the amendment.

Roll call vote on the main motion: all Council Members voted in the affirmative, approving the motion.

16. **Council Directives to City Manager.** None.

17. **Community Input & Announcements.** Mayor provided a final opportunity for community input and announcements, which were made as follows:

    a. Denise Rankin of OC invited children to stop by the OC office for goody bags.
    b. Dennis Robinson said that as President of the Qawalangin Tribe that he is taking action regarding the U.S. Post Office in Unalaska.
    c. Mayor Tutiakoff expressed thanks for votes as Mayor and he will “do his best”.

18. **Adjournment. Adjournment.** Having completed all items on the agenda, the Mayor adjourned the meeting at 7:48 p.m.

These minutes were approved by the Unalaska City Council on November 10, 2022.

_____
Marjie Veeder, CMC
City Clerk

DRAFT

CITY OF UNALASKA

UNAUDITED FINANCIAL REPORTS

FOR THE ONE MONTH ENDED JULY 31, 2022

TABLE OF CONTENTS

MEMORANDUM TO COUNCIL

TO: MAYOR AND CITY COUNCIL MEMBERS

FROM: CLAY DARNELL, INTERIM FINANCE DIRECTOR

THRU: CHRIS HLADICK, INTERIM CITY MANAGER

DATE: OCTOBER 27, 2022

RE: UNAUDITED FINANCIAL REPORTS FOR THE MONTH ENDED JULY 31, 2022

In order to keep the Council informed about the financial activity of the City of Unalaska, the Finance Department has prepared interim financial reports for the one month ended July 31, 2022.

Fund/Departmental Highlights

General Fund:

- City Administration expenses include $501K for annual insurance premiums due in July.

FUND - General Fund

General Fund Operating Monthly Summary - Month Ending July 2022

	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUES						
Raw Seafood Tax	3,400,000	677,055	677,055	20%	755,811	(78,757)
AK Fisheries Business	3,770,000	-	-	0%	-	-
AK Fisheries Resource Landing	4,500,000	-	-	0%	-	-
Property Taxes	7,300,000	260,169	260,169	4%	684,433	(424,264)
Sales Tax	7,650,000	1,321,047	1,321,047	17%	1,156,521	164,526
Investment Earnings	400,000	565,616	565,616	141%	201,360	364,256
Other Revenues	3,109,220	1,267,719	1,267,719	41%	997,709	270,010
Total General Fund Revenues	30,129,220	4,091,606	4,091,606	14%	3,795,835	295,770
EXPENDITURES						
Mayor & Council	507,215	18,310	18,310	4%	51,434	(33,124)
City Administration	2,029,567	593,651	593,651	29%	537,973	55,678
City Clerk	579,434	38,524	38,524	7%	37,219	1,306
Finance	2,239,329	145,102	145,102	6%	163,969	(18,867)
Planning	810,112	51,266	51,266	6%	51,559	(293)
Public Safety Admin	1,134,862	54,059	54,059	5%	-	54,059
Public Safety	5,155,768	305,441	305,441	6%	353,935	(48,494)
Fire, EMS	1,686,600	134,954	134,954	8%	110,355	24,599
Public Works	6,393,759	389,977	389,977	6%	403,057	(13,080)
Parks, Culture & Recreation	3,907,838	241,508	241,508	6%	291,665	(50,157)
Community Grants	1,266,422	135,258	135,258	11%	94,531	40,727
School Support	5,004,910	417,076	417,076	8%	391,599	25,477
Total Operating Expenditures	30,715,816	2,525,125	2,525,125	8%	2,487,295	37,830
Net Operating Surplus	**(586,596)**	**1,566,481**	**1,566,481**		**1,308,540**	**257,941**
Capital Outlay and Transfers						
Capital Outlay	826,010	-	-	0%	-	-
Transfers To Capital Projects	2,787,950	2,140,730	2,140,730	77%	1,896,013	244,717
Transfers To Enterprise Capital	3,494,500	3,494,500	3,494,500	100%	3,494,500	-
Total Capital Outlay and Transfers	7,108,460	5,635,230	5,635,230	79%	5,390,513	244,717
Net Surplus (Deficit)	**(7,695,055)**	**(4,068,749)**	**(4,068,749)**		**(4,081,973)**	**13,224**
Appropriated Fund Balance	7,181,980	-	-		-	-
	$ (513,075)	$ (4,068,749)	$ (4,068,749)		$ (4,081,973)	$ 13,224

Operating Monthly Summary - Month Ending July 2022

1% Sales Tax Special Revenue Fund	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Sales Tax	$ 3,825,000	$ 660,524	$ 660,524	17%	$ 578,261	$ 82,263
TRANSFERS						
Govt Capital Projects	0	0	0	0%	1,000,000	(1,000,000)
Enterprise Capital	3,860,000	3,860,000	3,860,000	100%	3,860,000	0
Total Transfers	3,860,000	3,860,000	3,860,000	100%	4,860,000	(1,000,000)
1% Sales Tax Special Revenue Fund	$ (35,000)	$ (3,199,477)	$ (3,199,477)		$4,281,739)	$ 1,082,263

Bed Tax Special Revenue Fund	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Bed Tax	$ 175,000	$ -	$ -	-%	$ 8,056	($ 8,056)
EXPENSES						
Unalaska CVB	210,000	17,500	17,500	8%	17,500	-
Bed Tax Special Revenue Fund	$ (35,000)	$ (17,500)	$ (17,500)		$ (9,444)	$ (8,056)

E911 Enhancement Special Revenue Fund	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
E911 Enhancement Tax	$ 75,000	$ 7,330	$ 7,330	10%	$ -	$ 7,330
EXPENSES						
Public Safety Admin	75,000	-	-	-%	-	-
E911 Enhancement Special Revenue Fund	$ 0	$ 7,330	$ 7,330		$ 0	$ 7,330

Tobacco Tax Special Revenue Fund	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Tobacco Tax	$ 750,000	$ 256,646	$ 256,646	34%	$ -	$ 256,646
EXPENSES						
Community Support	88,000	7,333	7,333	8%	-	7,333
Tobacco Tax Special Revenue Fund	$ 662,000	$ 249,313	$ 249,313		$ 0	$ 249,313

Operating Monthly Summary - Month Ending July 2022

	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Electric Proprietary Fund						
REVENUES	16,635,361	2,159,046	2,159,046	13%	1,399,334	759,711
EXPENSES - Cash Basis						
Electric Line Repair & Maint	1,433,247	38,951	38,951	3%	48,474	(9,523)
Electric Production	12,399,611	1,733,117	1,733,117	14%	743,479	989,639
Facilities Maintenance	133,898	4,914	4,914	4%	5,768	(854)
Utility Administration	2,291,879	314,314	314,314	14%	299,103	15,211
Veh & Equip Maintenance	67,356	2,792	2,792	4%	3,571	(780)
Total operating expenses - cash basis	16,325,991	2,094,088	2,094,088	13%	1,100,395	993,693
Net Profit (loss) from operations - cash basis	309,370	64,958	64,958		298,939	(233,981)
Depreciation	3,656,123	310,302	310,302	8%	309,840	463
Net Profit (loss) from operations - accrual basis	(3,346,753)	(245,345)	(245,345)		(10,901)	(234,444)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	1,135,266	883,112	883,112	78%	715,000	168,112
Total Transfers and Capital Outlay	1,135,266	883,112	883,112	78%	715,000	168,112
Net earnings (loss)	(4,482,019)	(1,128,457)	(1,128,457)		(725,901)	(402,556)
Water Proprietary Fund						
REVENUES	2,716,329	335,633	335,633	12%	359,168	(23,535)
EXPENSES - Cash Basis						
Facilities Maintenance	62,250	3,067	3,067	5%	3,376	(309)
Utility Administration	770,020	120,798	120,798	16%	118,461	2,336
Veh & Equip Maintenance	41,119	996	996	2%	782	214
Water Operations	1,653,877	65,683	65,683	4%	89,530	(23,847)
Total operating expenses - cash basis	2,527,265	190,544	190,544	8%	212,150	(21,606)
Net Profit (loss) from operations - cash basis	189,064	145,089	145,089		147,018	(1,929)
Depreciation	1,140,502	86,242	86,242	8%	93,040	(6,798)
Net Profit (loss) from operations - accrual basis	(951,438)	58,847	58,847		53,978	4,869
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	1,317,508	791,061	791,061	60%	1,915,500	(1,124,439)
Total Transfers and Capital Outlay	1,317,508	791,061	791,061	60%	1,915,500	(1,124,439)
	(2,268,946)	(732,214)	(732,214)		(1,861,522)	1,129,308

Operating Monthly Summary - Month Ending July 2022

	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Wastewater Proprietary Fund						
REVENUES	2,745,281	227,269	227,269	8%	211,269	16,001
EXPENSES - Cash Basis						
Facilities Maintenance	63,968	2,616	2,616	4%	3,145	(529)
Utility Administration	728,198	90,404	90,404	12%	104,952	(14,548)
Veh & Equip Maintenance	32,455	1,086	1,086	3%	2,331	(1,245)
Wastewater Operations	2,166,394	186,538	186,538	9%	113,683	72,855
Total operating expenses - cash basis	2,991,016	280,644	280,644	9%	224,111	56,533
Net Profit (loss) from operations - cash basis	(245,735)	(53,375)	(53,375)		(12,843)	(40,532)
Depreciation	1,263,420	106,587	106,587	8%	102,020	4,567
Net Profit (loss) from operations - accrual basis	(1,509,155)	(159,962)	(159,962)		(114,863)	(45,099)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	28,272	28,272	28,272	100%	43,000	(14,728)
Total Transfers and Capital Outlay	28,272	28,272	28,272	100%	43,000	(14,728)
	(1,537,427)	(188,234)	(188,234)		(157,863)	(30,371)
Solid Waste Proprietary Fund						
REVENUES	2,870,917	276,413	276,413	10%	276,036	378
EXPENSES - Cash Basis						
Facilities Maintenance	120,782	4,426	4,426	4%	3,860	566
Solid Waste Operations	2,039,518	113,371	113,371	6%	86,965	26,406
Utility Administration	806,738	87,398	87,398	11%	89,819	(2,421)
Veh & Equip Maintenance	158,420	3,094	3,094	2%	2,810	284
Total operating expenses - cash basis	3,125,458	208,289	208,289	7%	183,455	24,834
Net Profit (loss) from operations - cash basis	(254,541)	68,124	68,124		92,581	(24,457)
Depreciation	886,148	74,298	74,298	8%	73,201	1,096
Net Profit (loss) from operations - accrual basis	(1,140,689)	(6,174)	(6,174)		19,379	(25,553)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	400,000	400,000	400,000	100%	1,171,100	(771,100)
Total Transfers and Capital Outlay	400,000	400,000	400,000	100%	1,171,100	(771,100)
Net earnings (loss)	(1,540,689)	(406,174)	(406,174)		(1,151,721)	745,547

	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Ports & Harbors Proprietary Fund						
REVENUES	8,566,054	755,910	755,910	9%	511,967	243,943
EXPENSES - Cash Basis						
Bobby Storrs Small Boat Harbor	180,650	17,076	17,076	9%	17,896	(819)
CEM Small Boat Harbor	960,269	123,690	123,690	13%	110,389	13,301
Facilities Maintenance	55,328	2,649	2,649	5%	3,692	(1,043)
Harbor Office	2,765,420	224,563	224,563	8%	215,780	8,783
Ports Security	72,295	-	-	-%	763	(763)
Spit & Light Cargo Docks	697,277	122,980	122,980	18%	121,775	1,205
Unalaska Marine Center	1,155,385	271,894	271,894	24%	258,731	13,163
Veh & Equip Maintenance	66,688	7,058	7,058	11%	4,527	2,531
Total operating expenses - cash basis	5,953,312	769,910	769,910	13%	733,553	36,358
Net Profit (loss) from operations - cash basis	2,612,742	(14,001)	(14,001)		(221,586)	207,585
Depreciation	4,301,644	356,974	356,974	8%	358,051	(1,077)
Net Profit (loss) from operations - accrual basis	(1,688,902)	(370,975)	(370,975)		(579,637)	208,662
TRANSFERS and CAPITAL OUTLAY						
Capital Outlay	206,923	-	-	-%	-	0
Transfers Out	2,594,495	2,594,495	2,594,495	100%	6,045,000	(3,450,505)
Total Transfers and Capital Outlay	2,801,418	2,594,495	2,594,495	93%	6,045,000	(3,450,505)
Net earnings (loss)	(4,490,320)	(2,965,470)	(2,965,470)		(6,624,637)	3,659,167
Airport Proprietary Fund						
REVENUES	560,400	39,852	39,852	7%	38,952	900
EXPENSES - Cash Basis						
Airport Admin/Operations	404,849	68,098	68,098	17%	66,273	1,824
Facilities Maintenance	183,947	13,701	13,701	7%	7,160	6,540
Total operating expenses - cash basis	588,796	81,798	81,798	14%	73,434	8,365
Net Profit (loss) from operations - cash basis	(28,396)	(41,946)	(41,946)		(34,482)	(7,465)
Depreciation	278,541	23,139	23,139	8%	23,139	0
Net Profit (loss) from operations - accrual basis	(306,937)	(65,085)	(65,085)		(57,621)	(7,465)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	22,280	22,280	22,280	100%	-	22,280
Total Transfers and Capital Outlay	22,280	22,280	22,280	100%	-	22,280
Net earnings (loss)	(329,217)	(87,365)	(87,365)		(57,621)	(29,745)

Operating Monthly Summary - Month Ending July 2022

	FY2023 Budget	July	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Housing Proprietary Fund						
REVENUES	258,547	28,048	28,048	11%	14,804	13,244
EXPENSES - Cash Basis						
Facilities Maintenance	191,245	12,188	12,188	6%	13,532	(1,344)
Housing Admin & Operating	209,339	40,537	40,537	19%	36,532	4,004
Total operating expenses - cash basis	400,584	52,724	52,724	13%	50,064	2,660
Net Profit (loss) from operations - cash basis	(142,037)	(24,676)	(24,676)		(35,260)	10,584
Depreciation	195,245	16,270	16,270	8%	15,180	1,090
Net Profit (loss) from operations - accrual basis	(337,282)	(40,947)	(40,947)		(50,441)	9,494
TRANSFERS and CAPITAL OUTLAY						
Net earnings (loss)	(337,282)	(40,947)	(40,947)		(50,441)	9,494

City of Unalaska
Utility Revenue Report
Summary

07/30/22

FY23 Budget Month	Electric	Water	Waste Water	Solid Waste	Monthly Revenue	FY23 Revenue	FY22YTD Revenue	YTD Inc/(Dec)
Jul-22	2,157,450	335,633	227,269	271,713	2,992,066	2,992,066	2,996,388	(4,322)
Aug-22	0	0	0	0	0	0	3,261,770	0
Sep-22	0	0	0	0	0	0	3,521,425	0
Oct-22	0	0	0	0	0	0	3,677,570	0
Nov-22	0	0	0	0	0	0	3,836,484	0
Dec-22	0	0	0	0	0	0	4,035,330	0
Jan-23	0	0	0	0	0	0	4,234,911	0
Feb-23	0	0	0	0	0	0	4,544,892	0
Mar-23	0	0	0	0	0	0	4,845,452	0
Apr-23	0	0	0	0	0	0	5,091,648	0
May-23	0	0	0	0	0	0	5,288,441	0
Jun-23	0	0	0	0	0	0	5,562,416	0
YTD Totals	2,157,450	335,633	227,269	271,713	2,992,066			
FY23 Budget	16,467,477	2,641,500	2,674,775	2,347,730	24,131,482			
% to budget	13.1	12.7	8.5	11.6	12.4			

City of Unalaska
Electric Revenue Report
Electric Fund

07/30/22

FY23 Budget Month	Residential	Small General	Large General	Industrial	P.C.E. Assist	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	113,527	127,998	173,262	1,643,546	95,787	3,330	2,157,450	2,157,450	1,399,334	758,115
Aug-22							0	0	3,068,626	0
Sep-22							0	0	4,745,122	0
Oct-22							0	0	6,277,102	0
Nov-22							0	0	7,571,652	0
Dec-22							0	0	8,649,785	0
Jan-23							0	0	9,741,741	0
Feb-23							0	0	11,164,186	0
Mar-23							0	0	12,829,600	0
Apr-23							0	0	14,418,044	0
May-23							0	0	16,055,029	0
Jun-23							0	0	17,866,853	0
YTD Totals							2,157,450			
FY22 Budget	1,629,433	1,300,162	1,882,732	10,990,917	612,733	51,500	16,467,477			
% of Budget	0.0	0.0	0.0	0.0	0.0	0.0	13.1			

Kwh Sold

FY 23 Month	Residential	SM. Gen (Includes Street lights)	Large General	Industrial	Total FY23 Kwh Sold	Total FY22 Kwh Sold	Increase (Decrease)
July	249,699	256,555	357,071	3,240,445	4,103,770	3,609,461	494,309
August					0	4,418,992	0
September					0	4,472,383	0
October					0	4,272,956	0
November					0	3,463,728	0
December					0	2,922,427	0
January *					0	2,759,416	0
February					0	3,274,024	0
March					0	3,871,003	0
April					0	3,549,715	0
May					0	3,374,757	0
June					0	3,491,880	0
Total	249,699	256,555	357,071	3,240,445	4,103,770	43,480,742	494,309
Percent Sold	6.1%	6.3%	8.7%	79.0%	100.0%		

Generator Fuel	
FY23 Average Price Fuel	FY22 Average Price Fuel
5.2724	2.6143
	2.7156
	2.5013
	2.7635
	2.9311
	2.8861
	3.1072
	3.3337
	3.7527
	4.3688
	4.6063
	5.0664
5.2724	3.3872
55.66%	

% Change from Prior Year

FY23 Cumulative kwh Sold	FY21 Cumulative kwh Sold
4,103,770	3,609,461
4,103,770	8,028,453
4,103,770	12,500,836
4,103,770	16,773,792
4,103,770	20,237,520
4,103,770	23,159,947
4,103,770	25,919,363
4,103,770	29,193,387
4,103,770	33,064,390
4,103,770	36,614,105
4,103,770	39,988,862
4,103,770	43,480,742

City of Unalaska
Water Revenue Report
Water Fund

07/30/22

FY23 Month	Unmetered Sales	Metered Sales	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	12,580	323,064	(11)	335,633	335,633	359,168	(23,535)
Aug-22				0	0	748,631	0
Sep-22				0	0	989,962	0
Oct-22				0	0	1,077,710	0
Nov-22				0	0	1,178,759	0
Dec-22				0	0	1,270,043	0
Jan-23				0	0	1,432,982	0
Feb-23				0	0	1,836,037	0
Mar-23				0	0	2,159,686	0
Apr-23				0	0	2,307,515	0
May-23				0	0	2,424,938	0
Jun-23				0	0	2,664,186	0
YTD Totals	12,580	323,064	(11)	335,633			
FY22 Budget	148,000	2,485,000	8,500	2,641,500			
% of Budget	8.5	13.0	(0.1)	12.7			

Million Gallons Produced

FY23 Month	FY 23 Produced	FY 22 Produced	Increase (Decrease)
July	148.673	147.336	1.337
August		163.373	0.000
September		104.305	0.000
October		45.402	0.000
November		50.688	0.000
December		45.300	0.000
January		73.309	0.000
February		169.312	0.000
March		139.668	0.000
April		65.458	0.000
May		52.996	0.000
June		108.098	0.000
Total	148.673	1165.245	1.337

FY23 Water Cumulative	FY22 Water Cumulative
148.673	147.336
0.000	310.709
0.000	415.014
0.000	460.416
0.000	511.104
0.000	556.404
0.000	629.713
0.000	799.025
0.000	938.693
0.000	1004.151
0.000	1057.147
0.000	1165.245

City of Unalaska
Wastewater Revenue Report
Wastewater Fund

07/30/22

FY23 Budget Month	Unmetered Sales	Metered Commercial	Metered Industrial	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	43,699	163,381	17,642	2,547	227,269	227,269	211,269	16,001
Aug-22					0	0	455,031	0
Sep-22					0	0	711,870	0
Oct-22					0	0	871,617	0
Nov-22					0	0	1,048,692	0
Dec-22					0	0	1,227,000	0
Jan-23					0	0	1,441,097	0
Feb-23					0	0	1,700,452	0
Mar-23					0	0	1,956,007	0
Apr-23					0	0	2,162,195	0
May-22					0	0	2,382,905	0
Jun-22					0	0	2,584,848	0
YTD Totals	43,699	163,381	17,642	2,547	227,269			
FY22 Budget	482,000	2,045,950	91,300	55,525	2,674,775			
% of Budget	9.1	8.0	19.3	4.6	8.5			

FY22 Month	FY23 Effluent (Gal)	FY22 Effluent (Gal)	Increase (Decrease)
July	10,309,000	12,412,000	(2,103,000)
August		10,241,000	0
September		11,063,000	0
October		12,963,000	0
November		10,952,000	0
December		10,736,000	0
January		16,093,000	0
February		15,241,000	0
March		12,698,000	0
April		12,240,000	0
May		9,502,000	0
June		9,616,000	0
Total	10,309,000	143,757,000	(2,103,000)

FY23 Cumulative	FY22 Cumulative
10,309,000	12,412,000
0	22,653,000
0	33,716,000
0	46,679,000
0	57,631,000
0	68,367,000
0	84,460,000
0	99,701,000
0	112,399,000
0	124,639,000
0	134,141,000
0	143,757,000

City of Unalaska
Solid Waste Revenue Report
Solid Waste Fund

07/30/22

FY23 Month	Residential Fees	Tipping Fees	Other Revenue	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	34,750	191,553	45,410	271,713	271,713	276,036	(4,322)
Aug-22				0	0	541,417	0
Sep-22				0	0	801,072	0
Oct-22				0	0	957,217	0
Nov-22				0	0	1,116,131	0
Dec-22				0	0	1,314,977	0
Jan-23				0	0	1,514,559	0
Feb-23				0	0	1,824,540	0
Mar-23				0	0	2,125,099	0
Apr-23				0	0	2,371,296	0
May-23				0	0	2,568,089	0
Jun-23				0	0	2,842,063	0
YTD Totals	34,750	191,553	45,410	271,713			
FY22 Budget	325,165	1,548,679	473,886	2,347,730			
% of Budget	10.7	12.4	9.6	11.6			

FY23 Month	FY23 Tons of Waste	FY22 Tons of Waste	Increase (Decrease)
July	564.59	643.54	(78.95)
August		519.96	0.00
September		739.81	0.00
October		417.18	0.00
November		336.84	0.00
December		405.23	0.00
January		438.77	0.00
February		707.24	0.00
March		815.41	0.00
April		549.57	0.00
May		464.39	0.00
June		459.09	0.00
Total	564.59	6497.03	(78.95)

Cummulative	
FY23 Tons of Waste	FY22 Tons of Waste
564.59	643.54
0.00	1163.50
0.00	1903.31
0.00	2320.49
0.00	2657.33
0.00	3062.56
0.00	3501.33
0.00	4208.57
0.00	5023.98
0.00	5573.55
0.00	6037.94
0.00	6497.03

CITY OF UNALASKA
FY23 PORTS REVENUE

		UMC Dock				Spit Dock		Small Boat Harbor		Cargo Dock		CEM							
Month	Year	Docking/ Moorage	Wharfage Fees	Rental Fees	Utility Fees	Docking / Moorage	Utility Fees	Docking / Moorage	Utility Fees	Dockage / Moorage	Wharfage Rental/Util	Docking/ Moorage	Utility Fees	Other Rev&Fees	Monthly Revenue	FY23 YTD Revenue	% of Budget	FY22 YTD Revenue	YTD Inc(Dec)
Jul	2022	183,332	357,504	109,024	27,370	15,884	2,651	14,352	531	2,223	13,076	12,191	9,521	6,261	753,920	753,920	8.9%	511,920	242,000
Aug	2022														0	0	0.0%	1,255,232	0
Sept	2022														0	0	0.0%	2,088,870	0
Oct	2022														0	0	0.0%	2,908,630	0
Nov	2022														0	0	0.0%	3,429,716	0
Dec	2022														0	0	0.0%	4,157,725	0
Jan	2023														0	0	0.0%	4,602,424	0
Feb	2023														0	0	0.0%	5,238,563	0
Mar	2023														0	0	0.0%	6,151,388	0
Apr	2023														0	0	0.0%	6,960,237	0
May	2023														0	0	0.0%	7,612,089	0
Jun	2023														0	0	0.0%	8,179,699	0
Totals		183,332	357,504	109,024	27,370	15,884	2,651	14,352	531	2,223	13,076	12,191	9,521	6,261	753,920				
Loc total			677,230			18,534		14,883		15,299		21,712							
Loc percent			89.8%			2.5%		2.0%		2.0%		2.9%							
FY23 Budget		1,900,000	3,300,000	930,000	250,000	590,000	100,000	85,000	7,000	30,362	143,000	700,000	330,000	153,000	8,518,362				
% to Budget		9.6%	10.8%	11.7%	10.9%	2.7%	2.7%	16.9%	7.6%	7.3%	9.1%	1.7%	2.9%	4.1%	8.9%				

PORTS RECEIVABLES

Month	Year	Current	Over 30 Days	Over 60 Days	Over 90 Days	Total Due	% Past Due 90 Days +	Cash Received
Jul	2022	748,145	96,003	90,731	155,731	1,090,610	14.3%	439,807
Aug	2022					0	0.0%	
Sept	2022					0	0.0%	
Oct	2022					0	0.0%	
Nov	2022					0	0.0%	
Dec	2022					0	0.0%	
Jan	2023					0	0.0%	
Feb	2023					0	0.0%	
Mar	2023					0	0.0%	
Apr	2023					0	0.0%	
May	2023					0	0.0%	
Jun	2023					0	0.0%	
						YTD Cash Received		439,807

CITY OF UNALASKA
FY23 AIRPORT REVENUE

MONTH	YEAR	MONTHLY LEASES	MISC INCOME	LATE FEES	MONTHLY REVENUE	FY23 YTD REVENUE	% OF BUDGET	FY22 YTD REVENUE	YTD INC/(DEC)
JUL	2022	39,834	13	5	39,852	39,852	7.2%	38,057	1,795
AUG	2022				0	0	0.0%	77,027	0
SEP	2022				0	0	0.0%	115,999	0
OCT	2022				0	0	0.0%	154,047	0
NOV	2022				0	0	0.0%	190,185	0
DEC	2022				0	0	0.0%	232,170	0
JAN	2023				0	0	0.0%	270,162	0
FEB	2023				0	0	0.0%	304,294	0
MAR	2023				0	0	0.0%	339,243	0
APR	2023				0	0	0.0%	374,361	0
MAY	2023				0	0	0.0%	408,465	0
JUN	2023				0	0	0.0%	448,969	0
TOTAL		39,834	13	5	39,852		0.0%		
FY23 BUDGET		544,000	3,500	6,000	553,500				
% TO BUDGET		7.3%	0.4%	0.1%	7.2%				

RECEIVABLE BALANCES

MONTH	YEAR	CURRENT	OVER 30 DAYS	OVER 60 DAYS	OVER 90 DAYS	TOTAL DUE	% PAST DUE 90 DAYS +	CASH RECEIVED
JUL	2022	35,511	18,112	297	(22,940)	30,979	0.0%	36,339
AUG	2022					0	0.0%	
SEP	2022					0	0.0%	
OCT	2022					0	0.0%	
NOV	2022					0	0.0%	
DEC	2022					0	0.0%	
JAN	2023					0	0.0%	
FEB	2023					0	0.0%	
MAR	2023					0	0.0%	
APR	2023					0	0.0%	
MAY	2023					0	0.0%	
JUN	2023					0	0.0%	
							YTD TOTAL	36,339

FY 23 HOUSING RENTAL REVENUE

MONTH	YEAR	HOUSING RENTALS	MISC. REVENUE	MONTHLY REVENUE	FY23 YTD REVENUE	% OF BUDGET	FY22 YTD REVENUE	YTD INC/(DEC)
JUL	2022	28,048	0	28,048	28,048	11.3%	14,804	13,244
AUG	2022			0	0	0.0%	35,618	0
SEP	2022			0	0	0.0%	56,069	0
OCT	2022			0	0	0.0%	84,431	0
NOV	2022			0	0	0.0%	101,145	0
DEC	2022			0	0	0.0%	125,075	0
JAN	2023			0	0	0.0%	149,004	0
FEB	2023			0	0	0.0%	172,934	0
MAR	2023			0	0	0.0%	203,288	0
APR	2023			0	0	0.0%	218,284	0
MAY	2023			0	0	0.0%	246,730	0
JUN	2023			0	0	0.0%	258,805	0
TOTAL		28,048	0	28,048				
FY23 Budget		248,500	0	248,500				
% TO BUDGET		11.3%		11.3%				

CITY OF UNALASKA

UNAUDITED FINANCIAL REPORTS

FOR THE TWO MONTHS ENDED AUGUST 31, 2022

TABLE OF CONTENTS

MEMORANDUM TO COUNCIL

TO: MAYOR AND CITY COUNCIL MEMBERS

FROM: CLAY DARNELL, INTERIM FINANCE DIRECTOR

THRU: CHRIS HLADICK, INTERIM CITY MANAGER

DATE: OCTOBER 27, 2022

RE: UNAUDITED FINANCIAL REPORTS FOR THE MONTH ENDED AUGUST 31, 2022

In order to keep the Council informed about the financial activity of the City of Unalaska, the Finance Department has prepared interim financial reports for the two months ended August 31, 2022.

Fund/Departmental Highlights

General Fund:

- City Administration expenses include $501K for annual insurance premiums due in July.

FUND - General Fund

General Fund Operating Monthly Summary - Month Ending August 2022

	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUES						
Raw Seafood Tax	3,400,000	704,933	1,381,988	41%	1,353,647	28,341
AK Fisheries Business	3,770,000	-	-	0%	-	-
AK Fisheries Resource Landing	4,500,000	-	-	0%	-	-
Property Taxes	7,300,000	3,565,977	3,826,146	52%	4,077,185	(251,038)
Sales Tax	7,650,000	980,210	2,301,257	30%	1,931,799	369,458
Investment Earnings	400,000	(631,853)	(66,237)	-17%	218,999	(285,236)
Other Revenues	3,109,220	267,242	1,534,961	49%	1,100,031	434,930
Total General Fund Revenues	30,129,220	4,886,510	8,978,115	30%	8,681,660	296,455
EXPENDITURES						
Mayor & Council	507,215	12,817	31,127	6%	76,699	(45,572)
City Administration	2,029,567	138,568	732,219	36%	644,315	87,904
City Clerk	579,434	34,204	72,729	13%	74,901	(2,172)
Finance	2,239,329	140,006	285,108	13%	283,874	1,234
Planning	810,112	60,314	111,580	14%	105,330	6,250
Public Safety Admin	1,134,862	97,966	152,024	13%	-	152,024
Public Safety	5,155,768	279,325	584,766	11%	739,469	(154,703)
Fire, EMS	1,686,600	103,394	238,347	14%	228,127	10,221
Public Works	6,393,759	423,706	813,683	13%	799,614	14,068
Parks, Culture & Recreation	3,907,838	254,319	495,827	13%	546,154	(50,327)
Community Grants	1,266,422	80,106	215,364	17%	271,561	(56,198)
School Support	5,004,910	417,076	834,152	17%	783,198	50,954
Total Operating Expenditures	30,715,816	2,041,800	4,566,925	15%	4,553,242	13,683
Net Operating Surplus	**(586,596)**	**2,844,709**	**4,411,190**		**4,128,419**	**282,771**
Capital Outlay and Transfers						
Capital Outlay	826,010	19,294	19,294	2%	-	19,294
Transfers To Capital Projects	2,787,950	647,220	2,787,950	100%	1,896,013	891,937
Transfers To Enterprise Capital	3,494,500	-	3,494,500	100%	3,494,500	-
Total Capital Outlay and Transfers	7,108,460	666,514	6,301,744	89%	5,390,513	911,231
Net Surplus (Deficit)	**(7,695,055)**	**2,178,195**	**(1,890,554)**		**(1,262,094)**	**(628,459)**
Appropriated Fund Balance	7,181,980	-	-		-	-
	$ (513,075)	$ 2,178,195	$ (1,890,554)		$ (1,262,094)	$ (628,459)

Operating Monthly Summary - Month Ending August 2022

1% Sales Tax Special Revenue Fund	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Sales Tax	$ 3,825,000	$ 490,105	$ 1,150,629	30%	$ 965,899	$ 184,729
TRANSFERS						
Govt Capital Projects	0	0	0	0%	1,000,000	(1,000,000)
Enterprise Capital	3,860,000	0	3,860,000	100%	3,860,000	0
Total Transfers	3,860,000	-	3,860,000	100%	4,860,000	(1,000,000)
1% Sales Tax Special Revenue Fund	$ (35,000)	$ 490,105	$ (2,709,371)		$3,894,101)	$ 1,184,729

Bed Tax Special Revenue Fund	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Bed Tax	$ 175,000	$ -	$ -	-%	$ 27,900	($ 27,900)
EXPENSES						
Unalaska CVB	210,000	17,500	35,000	17%	35,000	-
Bed Tax Special Revenue Fund	$ (35,000)	$ (17,500)	$ (35,000)		$ (7,100)	$ (27,900)

E911 Enhancement Special Revenue Fund	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
E911 Enhancement Tax	$ 75,000	$ 6,756	$ 14,086	19%	$ -	$ 14,086
EXPENSES						
Public Safety Admin	75,000	-	-	-%	-	-
E911 Enhancement Special Revenue Fund	$ 0	$ 6,756	$ 14,086		$ 0	$ 14,086

Tobacco Tax Special Revenue Fund	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Tobacco Tax	$ 750,000	$ -	$ 256,646	34%	$ -	$ 256,646
EXPENSES						
Community Support	88,000	7,333	14,667	17%	-	14,667
Tobacco Tax Special Revenue Fund	$ 662,000	$ (7,333)	$ 241,980		$ 0	$ 241,980

Operating Monthly Summary - Month Ending August 2022

	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Electric Proprietary Fund						
REVENUES	16,635,361	2,570,281	4,729,326	28%	3,068,626	1,660,701
EXPENSES - Cash Basis						
Electric Line Repair & Maint	1,433,247	22,412	61,363	4%	89,234	(27,871)
Electric Production	12,399,611	1,404,965	3,138,083	25%	1,821,396	1,316,687
Facilities Maintenance	133,898	6,081	10,995	8%	8,956	2,039
Utility Administration	2,291,879	82,865	397,179	17%	380,021	17,158
Veh & Equip Maintenance	67,356	1,632	4,424	7%	8,052	(3,629)
Total operating expenses - cash basis	16,325,991	1,517,955	3,612,043	22%	2,307,659	1,304,384
Net Profit (loss) from operations - cash basis	309,370	1,052,325	1,117,283		760,966	356,317
Depreciation	3,656,123	310,302	620,605	17%	619,679	925
Net Profit (loss) from operations - accrual basis	(3,346,753)	742,023	496,679		141,287	355,392
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	1,135,266	-	883,112	78%	715,000	168,112
Total Transfers and Capital Outlay	1,135,266	-	883,112	78%	715,000	168,112
Net earnings (loss)	(4,482,019)	742,023	(386,433)		(573,713)	187,280
Water Proprietary Fund						
REVENUES	2,716,329	255,937	591,571	22%	748,631	(157,060)
EXPENSES - Cash Basis						
Facilities Maintenance	62,250	1,390	4,457	7%	4,896	(440)
Utility Administration	770,020	82,955	203,752	26%	203,750	3
Veh & Equip Maintenance	41,119	868	1,864	5%	6,037	(4,173)
Water Operations	1,653,877	90,769	156,452	9%	178,891	(22,438)
Total operating expenses - cash basis	2,527,265	175,982	366,526	15%	393,574	(27,048)
Net Profit (loss) from operations - cash basis	189,064	79,955	225,045		355,057	(130,012)
Depreciation	1,140,502	86,242	172,484	15%	186,079	(13,596)
Net Profit (loss) from operations - accrual basis	(951,438)	(6,286)	52,561		168,977	(116,416)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	1,317,508	-	791,061	60%	1,915,500	(1,124,439)
Total Transfers and Capital Outlay	1,317,508	-	791,061	60%	1,915,500	(1,124,439)
	(2,268,946)	(6,286)	(738,500)		(1,746,523)	1,008,023

	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Wastewater Proprietary Fund						
REVENUES	2,745,281	248,530	475,799	17%	455,031	20,767
EXPENSES - Cash Basis						
Facilities Maintenance	63,968	2,628	5,244	8%	10,774	(5,530)
Utility Administration	728,198	35,226	125,630	17%	139,649	(14,019)
Veh & Equip Maintenance	32,455	1,908	2,995	9%	4,380	(1,385)
Wastewater Operations	2,166,394	113,107	299,645	14%	239,377	60,268
Total operating expenses - cash basis	2,991,016	152,870	433,514	14%	394,181	39,333
Net Profit (loss) from operations - cash basis	(245,735)	95,660	42,285		60,851	(18,566)
Depreciation	1,263,420	106,587	213,174	17%	204,040	9,134
Net Profit (loss) from operations - accrual basis	(1,509,155)	(10,927)	(170,889)		(143,189)	(27,700)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	28,272	-	28,272	100%	43,000	(14,728)
Total Transfers and Capital Outlay	28,272	-	28,272	100%	43,000	(14,728)
	(1,537,427)	(10,927)	(199,161)		(186,189)	(12,972)
Solid Waste Proprietary Fund						
REVENUES	2,870,917	329,848	606,261	21%	541,417	64,844
EXPENSES - Cash Basis						
Facilities Maintenance	120,782	4,861	9,287	8%	7,088	2,199
Solid Waste Operations	2,039,518	111,103	224,474	11%	173,238	51,235
Utility Administration	806,738	51,159	138,557	17%	142,219	(3,663)
Veh & Equip Maintenance	158,420	6,757	9,850	6%	7,460	2,391
Total operating expenses - cash basis	3,125,458	173,879	382,168	12%	330,005	52,162
Net Profit (loss) from operations - cash basis	(254,541)	155,969	224,093		211,412	12,681
Depreciation	886,148	74,298	148,595	17%	146,403	2,193
Net Profit (loss) from operations - accrual basis	(1,140,689)	81,671	75,498		65,009	10,489
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	400,000	-	400,000	100%	1,171,100	(771,100)
Total Transfers and Capital Outlay	400,000	-	400,000	100%	1,171,100	(771,100)
Net earnings (loss)	(1,540,689)	81,671	(324,503)		(1,106,091)	781,589

Operating Monthly Summary - Month Ending August 2022

	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Ports & Harbors Proprietary Fund						
REVENUES	8,566,054	1,100,572	1,856,482	22%	1,255,342	601,140
EXPENSES - Cash Basis						
Bobby Storrs Small Boat Harbor	180,650	9,455	26,531	15%	25,513	1,018
CEM Small Boat Harbor	960,269	71,342	195,031	20%	147,773	47,258
Facilities Maintenance	55,328	1,878	4,528	8%	8,888	(4,360)
Harbor Office	2,765,420	202,840	427,403	15%	407,682	19,721
Ports Security	72,295	1,048	1,048	1%	1,748	(700)
Spit & Light Cargo Docks	697,277	44,168	167,148	24%	138,921	28,227
Unalaska Marine Center	1,155,385	63,322	335,216	29%	311,625	23,591
Veh & Equip Maintenance	66,688	6,127	13,185	20%	7,202	5,983
Total operating expenses - cash basis	5,953,312	400,179	1,170,089	20%	1,049,351	120,738
Net Profit (loss) from operations - cash basis	2,612,742	700,393	686,393		205,991	480,402
Depreciation	4,301,644	356,974	713,949	17%	716,102	(2,154)
Net Profit (loss) from operations - accrual basis	(1,688,902)	343,419	(27,556)		(510,111)	482,555
TRANSFERS and CAPITAL OUTLAY						
Capital Outlay	206,923	-	-	-%	-	0
Transfers Out	2,594,495	-	2,594,495	100%	6,045,000	(3,450,505)
Total Transfers and Capital Outlay	2,801,418	-	2,594,495	93%	6,045,000	(3,450,505)
Net earnings (loss)	(4,490,320)	343,419	(2,622,051)		(6,555,111)	3,933,060
Airport Proprietary Fund						
REVENUES	560,400	39,842	79,694	14%	77,895	1,798
EXPENSES - Cash Basis						
Airport Admin/Operations	404,849	39,325	107,422	27%	92,123	15,299
Facilities Maintenance	183,947	11,539	25,240	14%	14,099	11,141
Total operating expenses - cash basis	588,796	50,863	132,662	23%	106,222	26,440
Net Profit (loss) from operations - cash basis	(28,396)	(11,022)	(52,968)		(28,326)	(24,642)
Depreciation	278,541	23,139	46,278	17%	46,278	0
Net Profit (loss) from operations - accrual basis	(306,937)	(34,161)	(99,246)		(74,605)	(24,642)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	22,280	-	22,280	100%	-	22,280
Total Transfers and Capital Outlay	22,280	-	22,280	100%	-	22,280
Net earnings (loss)	(329,217)	(34,161)	(121,526)		(74,605)	(46,922)

	FY2023 Budget	August	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Housing Proprietary Fund						
REVENUES	258,547	19,283	47,331	18%	35,618	11,713
EXPENSES - Cash Basis						
Facilities Maintenance	191,245	6,438	18,626	10%	24,212	(5,586)
Housing Admin & Operating	209,339	15,810	56,347	27%	48,289	8,058
Total operating expenses - cash basis	400,584	22,248	74,973	19%	72,500	2,472
Net Profit (loss) from operations - cash basis	(142,037)	(2,966)	(27,642)		(36,883)	9,241
Depreciation	195,245	16,270	32,541	17%	30,361	2,180
Net Profit (loss) from operations - accrual basis	(337,282)	(19,236)	(60,183)		(67,244)	7,061
TRANSFERS and CAPITAL OUTLAY						
Net earnings (loss)	(337,282)	(19,236)	(60,183)		(67,244)	7,061

WM
09.08.22

City of Unalaska
Utility Revenue Report
Summary

08/31/22

FY23 Budget Month	Electric	Water	Waste Water	Solid Waste	Monthly Revenue	FY23 Revenue	FY22YTD Revenue	YTD Inc/(Dec)
Jul-22	2,157,450	335,633	227,269	276,413	2,996,766	2,996,766	2,996,388	378
Aug-22	2,566,249	255,937	248,530	324,548	3,395,263	6,392,029	3,261,770	3,130,259
Sep-22	0	0	0	0	0	0	3,521,425	0
Oct-22	0	0	0	0	0	0	3,677,570	0
Nov-22	0	0	0	0	0	0	3,836,484	0
Dec-22	0	0	0	0	0	0	4,035,330	0
Jan-23	0	0	0	0	0	0	4,234,911	0
Feb-23	0	0	0	0	0	0	4,544,892	0
Mar-23	0	0	0	0	0	0	4,845,452	0
Apr-23	0	0	0	0	0	0	5,091,648	0
May-23	0	0	0	0	0	0	5,288,441	0
Jun-23	0	0	0	0	0	0	5,562,416	0
YTD Totals	4,723,699	591,571	475,799	600,961	6,392,029			
FY23 Budget	16,467,477	2,641,500	2,674,775	2,347,730	24,131,482			
% to budget	28.7	22.4	17.8	25.6	26.5			

City of Unalaska
Electric Revenue Report
Electric Fund

08/31/22

FY23 Budget Month	Residential	Small General	Large General	Industrial	P.C.E. Assist	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	113,527	127,998	173,262	1,643,546	95,787	3,330	2,157,450	2,157,450	1,399,334	758,115
Aug-22	126,002	139,392	200,807	1,957,035	139,452	3,561	2,566,249	4,723,699	3,068,626	1,655,073
Sep-22							0	0	4,745,122	0
Oct-22							0	0	6,277,102	0
Nov-22							0	0	7,571,652	0
Dec-22							0	0	8,649,785	0
Jan-23							0	0	9,741,741	0
Feb-23							0	0	11,164,186	0
Mar-23							0	0	12,829,600	0
Apr-23							0	0	14,418,044	0
May-23							0	0	16,055,029	0
Jun-23							0	0	17,866,853	0
YTD Totals							4,723,699			
FY22 Budget	1,629,433	1,300,162	1,882,732	10,990,917	612,733	51,500	16,467,477			
% of Budget	0.0	0.0	0.0	0.0	0.0	0.0	28.7			

Kwh Sold

FY 23 Month	Residential	SM. Gen (Includes Street lights)	Large General	Industrial	Total FY23 Kwh Sold	Total FY22 Kwh Sold	Increase (Decrease)
July	249,699	256,555	357,071	3,240,445	4,103,770	3,609,461	494,309
August	287,328	271,719	414,571	3,738,430	4,712,048	4,418,992	293,056
September					0	4,472,383	0
October					0	4,272,956	0
November					0	3,463,728	0
December					0	2,922,427	0
January *					0	2,759,416	0
February					0	3,274,024	0
March					0	3,871,003	0
April					0	3,549,715	0
May					0	3,374,757	0
June					0	3,491,880	0
Total	537,027	528,274	771,642	6,978,875	8,815,818	43,480,742	787,365
Percent Sold	6.1%	6.0%	8.8%	79.2%	100.0%		

Generator Fuel	
FY23 Average Price Fuel	FY22 Average Price Fuel
5.2724	2.6143
4.0382	2.7156
	2.5013
	2.7635
	2.9311
	2.8861
	3.1072
	3.3337
	3.7527
	4.3688
	4.6063
	5.0664
4.6553	3.3872
37.44%	

% Change from Prior Year

FY23 Cumulative kwh Sold	FY21 Cumulative kwh Sold
4,103,770	3,609,461
8,815,818	8,028,453
8,815,818	12,500,836
8,815,818	16,773,792
8,815,818	20,237,520
8,815,818	23,159,947
8,815,818	25,919,363
8,815,818	29,193,387
8,815,818	33,064,390
8,815,818	36,614,105
8,815,818	39,988,862
8,815,818	43,480,742

City of Unalaska
Water Revenue Report
Water Fund

08/31/22

FY23 Month	Unmetered Sales	Metered Sales	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	12,580	323,064	(11)	335,633	335,633	359,168	(23,535)
Aug-22	12,610	242,800	527	255,937	591,571	748,631	(157,060)
Sep-22				0	0	989,962	0
Oct-22				0	0	1,077,710	0
Nov-22				0	0	1,178,759	0
Dec-22				0	0	1,270,043	0
Jan-23				0	0	1,432,982	0
Feb-23				0	0	1,836,037	0
Mar-23				0	0	2,159,686	0
Apr-23				0	0	2,307,515	0
May-23				0	0	2,424,938	0
Jun-23				0	0	2,664,186	0
YTD Totals	25,190	565,865	516	591,571			
FY22 Budget	148,000	2,485,000	8,500	2,641,500			
% of Budget	17.0	22.8	6.1	22.4			

Million Gallons Produced

FY23 Month	FY 23 Produced	FY 22 Produced	Increase (Decrease)
July	148.673	147.336	1.337
August	102.648	163.373	(60.725)
September		104.305	0.000
October		45.402	0.000
November		50.688	0.000
December		45.300	0.000
January		73.309	0.000
February		169.312	0.000
March		139.668	0.000
April		65.458	0.000
May		52.996	0.000
June		108.098	0.000
Total	251.321	1165.245	(59.388)

FY23 Water Cumulative	FY22 Water Cumulative
148.673	147.336
251.321	310.709
0.000	415.014
0.000	460.416
0.000	511.104
0.000	556.404
0.000	629.713
0.000	799.025
0.000	938.693
0.000	1004.151
0.000	1057.147
0.000	1165.245

City of Unalaska
Wastewater Revenue Report
Wastewater Fund

08/31/22

FY23 Budget Month	Unmetered Sales	Metered Commercial	Metered Industrial	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	43,699	163,381	17,642	2,547	227,269	227,269	211,269	16,001
Aug-22	43,802	186,885	17,701	142	248,530	475,799	455,031	20,767
Sep-22					0	0	711,870	0
Oct-22					0	0	871,617	0
Nov-22					0	0	1,048,692	0
Dec-22					0	0	1,227,000	0
Jan-23					0	0	1,441,097	0
Feb-23					0	0	1,700,452	0
Mar-23					0	0	1,956,007	0
Apr-23					0	0	2,162,195	0
May-22					0	0	2,382,905	0
Jun-22					0	0	2,584,848	0
YTD Totals	87,501	350,266	35,343	2,689	475,799			
FY22 Budget	482,000	2,045,950	91,300	55,525	2,674,775			
% of Budget	18.2	17.1	38.7	4.8	17.8			

FY22 Month	FY23 Effluent (Gal)	FY22 Effluent (Gal)	Increase (Decrease)
July	10,309,000	12,412,000	(2,103,000)
August	12,316,000	10,241,000	2,075,000
September		11,063,000	0
October		12,963,000	0
November		10,952,000	0
December		10,736,000	0
January		16,093,000	0
February		15,241,000	0
March		12,698,000	0
April		12,240,000	0
May		9,502,000	0
June		9,616,000	0
Total	22,625,000	143,757,000	(28,000)

FY23 Cumulative	FY22 Cumulative
10,309,000	12,412,000
22,625,000	22,653,000
0	33,716,000
0	46,679,000
0	57,631,000
0	68,367,000
0	84,460,000
0	99,701,000
0	112,399,000
0	124,639,000
0	134,141,000
0	143,757,000

City of Unalaska
Solid Waste Revenue Report
Solid Waste Fund

08/31/22

FY23 Month	Residential Fees	Tipping Fees	Other Revenue	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	34,750	191,553	50,110	276,413	276,413	276,036	378
Aug-22	34,753	231,556	58,238	324,548	600,961	541,417	59,544
Sep-22				0	0	801,072	0
Oct-22				0	0	957,217	0
Nov-22				0	0	1,116,131	0
Dec-22				0	0	1,314,977	0
Jan-23				0	0	1,514,559	0
Feb-23				0	0	1,824,540	0
Mar-23				0	0	2,125,099	0
Apr-23				0	0	2,371,296	0
May-23				0	0	2,568,089	0
Jun-23				0	0	2,842,063	0
YTD Totals	69,503	423,109	108,349	600,961			
FY22 Budget	325,165	1,548,679	473,886	2,347,730			
% of Budget	21.4	27.3	22.9	25.6			

FY23 Month	FY23 Tons of Waste	FY22 Tons of Waste	Increase (Decrease)
July	564.59	643.54	(78.95)
August	747.78	519.96	227.82
September		739.81	0.00
October		417.18	0.00
November		336.84	0.00
December		405.23	0.00
January		438.77	0.00
February		707.24	0.00
March		815.41	0.00
April		549.57	0.00
May		464.39	0.00
June		459.09	0.00
Total	1312.37	6497.03	148.87

Cummulative	
FY23 Tons of Waste	FY22 Tons of Waste
564.59	643.54
1312.37	1163.50
0.00	1903.31
0.00	2320.49
0.00	2657.33
0.00	3062.56
0.00	3501.33
0.00	4208.57
0.00	5023.98
0.00	5573.55
0.00	6037.94
0.00	6497.03

CITY OF UNALASKA
FY23 PORTS REVENUE

		UMC Dock				Spit Dock		Small Boat Harbor		Cargo Dock		CEM							
Month	Year	Docking/ Moorage	Wharfage Fees	Rental Fees	Utility Fees	Docking / Moorage	Utility Fees	Docking / Moorage	Utility Fees	Dockage / Moorage	Wharfage Rental/Util	Docking/ Moorage	Utility Fees	Other Rev&Fees	Monthly Revenue	FY23 YTD Revenue	% of Budget	FY22 YTD Revenue	YTD Inc(Dec)
Jul	2022	183,332	357,504	109,024	27,370	15,884	2,651	14,352	531	2,223	13,076	12,191	9,521	6,261	753,920	753,920	8.9%	511,920	242,000
Aug	2022	244,418	506,385	74,487	14,753	108,709	11,871	7,311	327	4,207	19,258	66,849	33,178	5,633	1,097,385	1,851,305	21.7%	1,255,232	596,073
Sept	2022														0	0	0.0%	2,088,870	0
Oct	2022														0	0	0.0%	2,908,630	0
Nov	2022														0	0	0.0%	3,429,716	0
Dec	2022														0	0	0.0%	4,157,725	0
Jan	2023														0	0	0.0%	4,602,424	0
Feb	2023														0	0	0.0%	5,238,563	0
Mar	2023														0	0	0.0%	6,151,388	0
Apr	2023														0	0	0.0%	6,960,237	0
May	2023														0	0	0.0%	7,612,089	0
Jun	2023														0	0	0.0%	8,179,699	0
Totals		427,750	863,889	183,511	42,123	124,593	14,522	21,663	857	6,430	32,334	79,040	42,699	11,894	1,851,305				
Loc total			1,517,273			139,114		22,521		38,764		121,739							
Loc percent			82.0%			7.5%		1.2%		2.1%		6.6%							
FY23 Budget		1,900,000	3,300,000	930,000	250,000	590,000	100,000	85,000	7,000	30,362	143,000	700,000	330,000	153,000	8,518,362				
% to Budget		22.5%	26.2%	19.7%	16.8%	21.1%	14.5%	25.5%	12.2%	21.2%	22.6%	11.3%	12.9%	7.8%	21.7%				

PORTS RECEIVABLES

Month	Year	Current	Over 30 Days	Over 60 Days	Over 90 Days	Total Due	% Past Due 90 Days +	Cash Received
Jul	2022	748,145	96,003	90,731	155,731	1,090,610	14.3%	439,807
Aug	2022	1,082,897	142,553	38,903	154,942	1,419,296	10.9%	768,699
Sept	2022					0	0.0%	
Oct	2022					0	0.0%	
Nov	2022					0	0.0%	
Dec	2022					0	0.0%	
Jan	2023					0	0.0%	
Feb	2023					0	0.0%	
Mar	2023					0	0.0%	
Apr	2023					0	0.0%	
May	2023					0	0.0%	
Jun	2023					0	0.0%	
						YTD Cash Received		1,208,506

CITY OF UNALASKA
FY23 AIRPORT REVENUE

MONTH	YEAR	MONTHLY LEASES	MISC INCOME	LATE FEES	MONTHLY REVENUE	FY23 YTD REVENUE	% OF BUDGET	FY22 YTD REVENUE	YTD INC/(DEC)
JUL	2022	39,834	13	5	39,852	39,852	7.2%	38,057	1,795
AUG	2022	39,821	19	2	39,842	79,694	14.4%	77,027	2,667
SEP	2022				0	0	0.0%	115,999	0
OCT	2022				0	0	0.0%	154,047	0
NOV	2022				0	0	0.0%	190,185	0
DEC	2022				0	0	0.0%	232,170	0
JAN	2023				0	0	0.0%	270,162	0
FEB	2023				0	0	0.0%	304,294	0
MAR	2023				0	0	0.0%	339,243	0
APR	2023				0	0	0.0%	374,361	0
MAY	2023				0	0	0.0%	408,465	0
JUN	2023				0	0	0.0%	448,969	0
TOTAL		79,655	31	8	79,694		0.0%		
FY23 BUDGET		544,000	3,500	6,000	553,500				
% TO BUDGET		14.6%	0.9%	0.1%	14.4%				

RECEIVABLE BALANCES

MONTH	YEAR	CURRENT	OVER 30 DAYS	OVER 60 DAYS	OVER 90 DAYS	TOTAL DUE	% PAST DUE 90 DAYS +	CASH RECEIVED
JUL	2022	35,511	18,112	297	(22,940)	30,979	0.0%	36,339
AUG	2022	42,212	9,048	267	(23,026)	28,500	0.0%	44,692
SEP	2022					0	0.0%	
OCT	2022					0	0.0%	
NOV	2022					0	0.0%	
DEC	2022					0	0.0%	
JAN	2023					0	0.0%	
FEB	2023					0	0.0%	
MAR	2023					0	0.0%	
APR	2023					0	0.0%	
MAY	2023					0	0.0%	
JUN	2023					0	0.0%	
							YTD TOTAL	81,031

FY 23 HOUSING RENTAL REVENUE

MONTH	YEAR	HOUSING RENTALS	MISC. REVENUE	MONTHLY REVENUE	FY23 YTD REVENUE	% OF BUDGET	FY22 YTD REVENUE	YTD INC/(DEC)
JUL	2022	28,048	0	28,048	28,048	11.3%	14,804	13,244
AUG	2022	19,283		19,283	47,331	19.0%	35,618	11,713
SEP	2022			0	0	0.0%	56,069	0
OCT	2022			0	0	0.0%	84,431	0
NOV	2022			0	0	0.0%	101,145	0
DEC	2022			0	0	0.0%	125,075	0
JAN	2023			0	0	0.0%	149,004	0
FEB	2023			0	0	0.0%	172,934	0
MAR	2023			0	0	0.0%	203,288	0
APR	2023			0	0	0.0%	218,284	0
MAY	2023			0	0	0.0%	246,730	0
JUN	2023			0	0	0.0%	258,805	0
TOTAL		47,331	0	47,331				
FY23 Budget		248,500	0	248,500				
% TO BUDGET		19.0%		19.0%				

CITY OF UNALASKA

UNAUDITED FINANCIAL REPORTS

FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2022

TABLE OF CONTENTS

MEMORANDUM TO COUNCIL

TO: MAYOR AND CITY COUNCIL MEMBERS

FROM: CLAY DARNELL, INTERIM FINANCE DIRECTOR

THRU: CHRIS HLADICK, INTERIM CITY MANAGER

DATE: OCTOBER 27, 2022

RE: UNAUDITED FINANCIAL REPORTS FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2022

In order to keep the Council informed about the financial activity of the City of Unalaska, the Finance Department has prepared interim financial reports for the three months ended September 30, 2022.

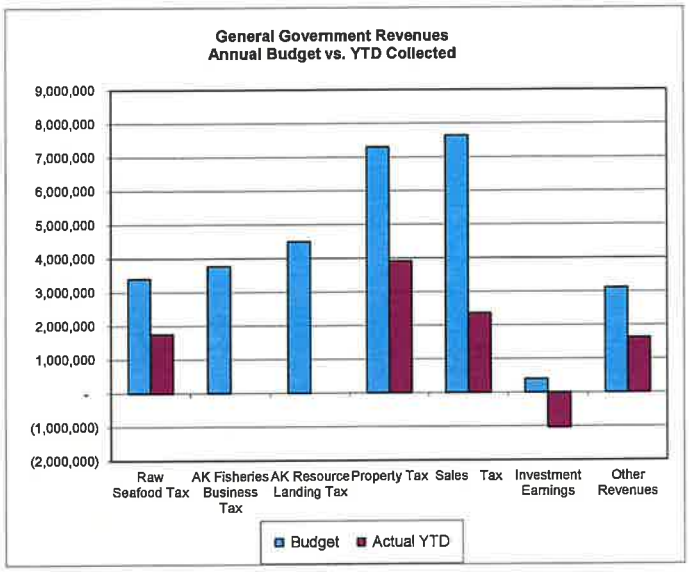
Fund/Departmental Highlights

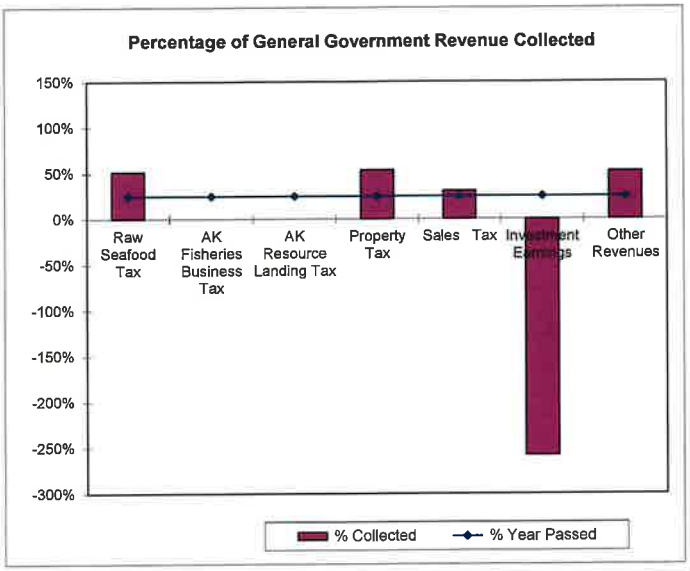
General Fund:

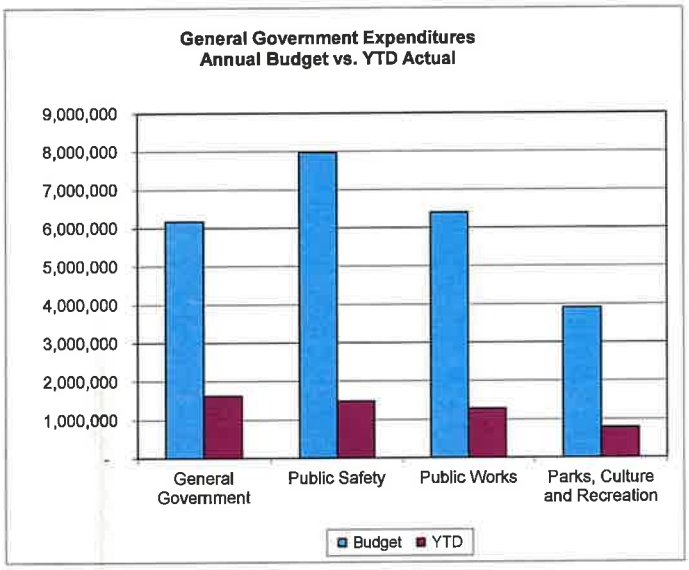
- The Fisheries Business and Resource Landing Taxes were received in November this year.
- City Administration expenses include $501K for annual insurance premiums due in July.

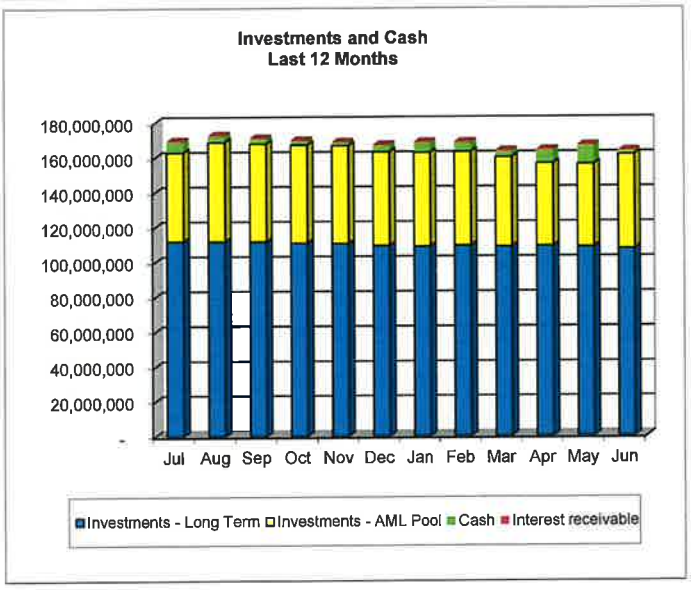
Proprietary Funds:

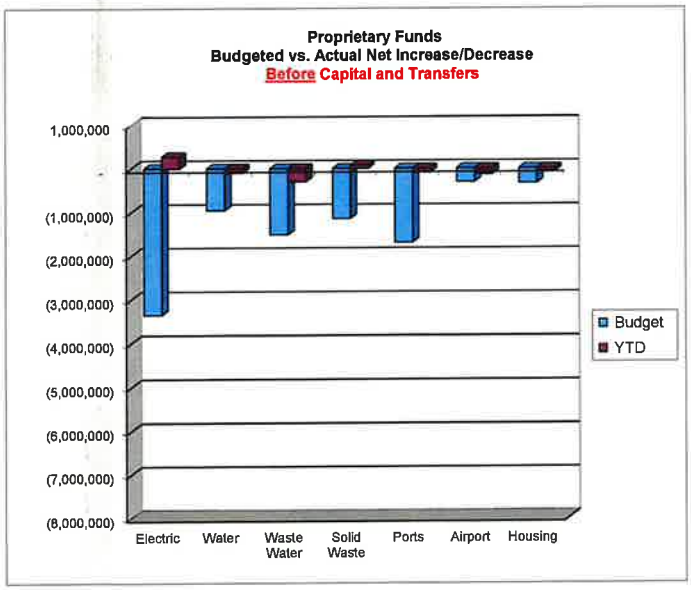
- All utility fund revenues and expenditures, and Ports and Harbors Funds and Housing Fund revenues and expenditures are within the budgetary estimated level of 25% with three months elapsed. Airport Fund revenues are less than the estimate at 21% and expenses are more than the estimate at 30%.

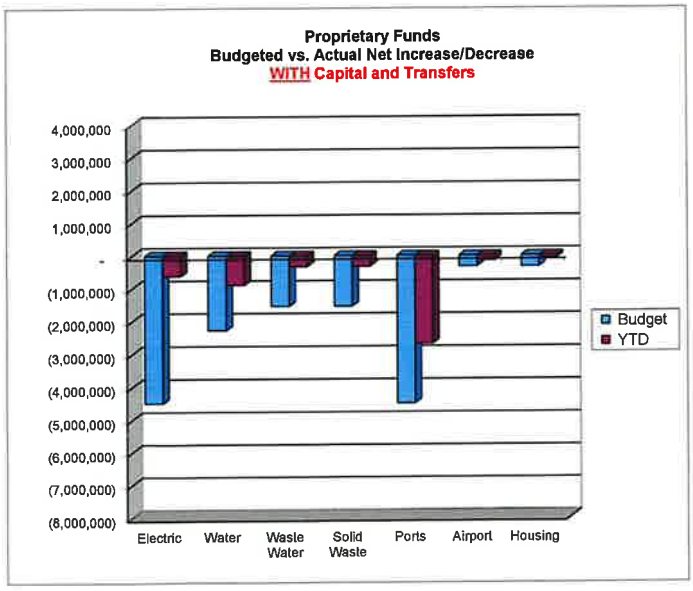

General Government Revenues
Annual Budget vs. YTD Collected
9,000,000
8,000,000
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
(1,000,000)
(2,000,000)
Raw Seafood Tax
AK Fisheries Business Tax
AK Resource Landing Tax
Property Tax
Sales Tax
Investment Earnings
Other Revenues
Budget
Actual YTD


Percentage of General Government Revenue Collected
150%
100%
50%
0%
-50%
-100%
-150%
-200%
-250%
-300%
Raw Seafood Tax
AK Fisheries Business Tax
AK Resource Landing Tax
Property Tax
Sales Tax
Investment Earnings
Other Revenues
% Collected
% Year Passed


General Government Expenditures
Annual Budget vs. YTD Actual
9,000,000
8,000,000
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
General Government
Public Safety
Public Works
Parks, Culture and Recreation
Budget
YTD


Investments and Cash
Last 12 Months
180,000,000
160,000,000
140,000,000
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
-
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Investments - Long Term
Investments - AML Pool
Cash
Interest receivable


Proprietary Funds
Budgeted vs. Actual Net Increase/Decrease
Before Capital and Transfers
1,000,000
-
(1,000,000)
(2,000,000)
(3,000,000)
(4,000,000)
(5,000,000)
(6,000,000)
(7,000,000)
(8,000,000)
Electric
Water
Waste Water
Solid Waste
Ports
Airport
Housing
Budget
YTD


Proprietary Funds
Budgeted vs. Actual Net Increase/Decrease
WITH Capital and Transfers
4,000,000
3,000,000
2,000,000
1,000,000
-
(1,000,000)
(2,000,000)
(3,000,000)
(4,000,000)
(5,000,000)
(6,000,000)
(7,000,000)
(8,000,000)
Electric
Water
Waste Water
Solid Waste
Ports
Airport
Housing
Budget
YTD

FUND - General Fund

General Fund Operating Monthly Summary - Month Ending September 2022

	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUES						
Raw Seafood Tax	3,400,000	368,735	1,750,723	51%	2,015,281	(264,558)
AK Fisheries Business	3,770,000	-	-	0%	-	-
AK Fisheries Resource Landing	4,500,000	-	-	0%	4,549,661	(4,549,661)
Property Taxes	7,300,000	88,164	3,914,310	54%	4,230,759	(316,449)
Sales Tax	7,650,000	62,075	2,363,332	31%	1,946,076	417,256
Investment Earnings	400,000	(966,278)	(1,032,515)	-258%	135,468	(1,167,983)
Other Revenues	3,109,220	88,100	1,623,061	52%	1,274,415	348,646
Total General Fund Revenues	30,129,220	(359,204)	8,618,911	29%	14,151,660	(5,532,749)
EXPENDITURES						
Mayor & Council	507,215	16,588	47,715	9%	92,824	(45,109)
City Administration	2,029,567	96,130	828,349	41%	771,465	56,884
City Clerk	579,434	40,149	112,878	19%	115,971	(3,093)
Finance	2,239,329	179,904	465,012	21%	545,212	(80,200)
Planning	810,112	55,331	166,911	21%	158,963	7,949
Public Safety Admin	1,134,862	79,537	231,561	20%	-	231,561
Public Safety	5,155,768	305,856	890,622	17%	1,101,011	(210,389)
Fire, EMS	1,686,600	122,806	361,154	21%	340,013	21,141
Public Works	6,393,759	469,132	1,282,815	20%	1,352,148	(69,334)
Parks, Culture & Recreation	3,907,838	291,766	787,593	20%	821,750	(34,158)
Community Grants	1,266,422	80,106	295,470	23%	357,842	(62,372)
School Support	5,004,910	417,076	1,251,228	25%	1,174,797	76,430
Total Operating Expenditures	30,715,816	2,154,381	6,721,306	22%	6,831,996	(110,690)
Net Operating Surplus	**(586,596)**	**(2,513,586)**	**1,897,604**		**7,319,664**	**(5,422,060)**
Capital Outlay and Transfers						
Capital Outlay	826,010	5,454	24,748	3%	10,581	14,167
Transfers To Capital Projects	2,787,950	-	2,787,950	100%	1,896,013	891,937
Transfers To Enterprise Capital	3,494,500	-	3,494,500	100%	3,494,500	-
Total Capital Outlay and Transfers	7,108,460	5,454	6,307,198	89%	5,401,094	906,104
Net Surplus (Deficit)	**(7,695,055)**	**(2,519,040)**	**(4,409,593)**		**1,918,570**	**(6,328,163)**
Appropriated Fund Balance	7,181,980	-	-		-	-
	$ (513,075)	$ (2,519,040)	$ (4,409,593)		$ 1,918,570	$ (6,328,163)

Operating Monthly Summary - Month Ending September 2022

1% Sales Tax Special Revenue Fund	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Sales Tax	$ 3,825,000	$ 31,037	$ 1,181,666	31%	$ 973,038	$ 208,628
TRANSFERS						
Govt Capital Projects	0	0	0	0%	1,000,000	(1,000,000)
Enterprise Capital	3,860,000	0	3,860,000	100%	3,860,000	0
Total Transfers	3,860,000	-	3,860,000	100%	4,860,000	(1,000,000)
1% Sales Tax Special Revenue Fund	$ (35,000)	$ 31,037	$ (2,678,334)		$3,886,962)	$ 1,208,628

Bed Tax Special Revenue Fund	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Bed Tax	$ 175,000	$ 48,592	$ 48,592	28%	$ 49,595	($ 1,002)
EXPENSES						
Unalaska CVB	210,000	17,500	52,500	25%	52,500	-
Bed Tax Special Revenue Fund	$ (35,000)	$ 31,092	$ (3,908)		$ (2,905)	$ (1,002)

E911 Enhancement Special Revenue Fund	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
E911 Enhancement Tax	$ 75,000	$ 6,754	$ 20,840	28%	$ -	$ 20,840
EXPENSES						
Public Safety Admin	75,000	-	-	-%	-	-
E911 Enhancement Special Revenue Fund	$ 0	$ 6,754	$ 20,840		$ 0	$ 20,840

Tobacco Tax Special Revenue Fund	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUE						
Tobacco Tax	$ 750,000	$ -	$ 256,646	34%	$ -	$ 256,646
EXPENSES						
Community Support	88,000	7,333	22,000	25%	-	22,000
Tobacco Tax Special Revenue Fund	$ 662,000	$ (7,333)	$ 234,646		$ 0	$ 234,646

Operating Monthly Summary - Month Ending September 2022

	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Electric Proprietary Fund						
REVENUES	16,635,361	1,697,280	6,426,606	39%	4,745,122	1,681,484
EXPENSES - Cash Basis						
Electric Line Repair & Maint	1,433,247	24,874	86,237	6%	159,773	(73,535)
Electric Production	12,399,611	1,124,881	4,262,964	34%	2,683,076	1,579,888
Facilities Maintenance	133,898	4,738	15,733	12%	15,744	(11)
Utility Administration	2,291,879	456,336	853,515	37%	848,139	5,376
Veh & Equip Maintenance	67,356	2,100	6,524	10%	11,636	(5,112)
Total operating expenses - cash basis	16,325,991	1,612,929	5,224,972	32%	3,718,367	1,506,605
Net Profit (loss) from operations - cash basis	309,370	84,351	1,201,634		1,026,755	174,879
Depreciation	3,656,123	310,302	930,907	25%	929,519	1,388
Net Profit (loss) from operations - accrual basis	(3,346,753)	(225,951)	270,727		97,236	173,491
TRANSFERS and CAPITAL OUTLAY						
Capital Outlay	-	-	-	-%	64,980	(64,980)
Transfers Out	1,135,266	-	883,112	78%	715,000	168,112
Total Transfers and Capital Outlay	1,135,266	-	883,112	78%	779,980	103,132
Net earnings (loss)	(4,482,019)	(225,951)	(612,385)		(682,744)	70,359
Water Proprietary Fund						
REVENUES	2,716,329	75,636	667,207	25%	989,962	(322,755)
EXPENSES - Cash Basis						
Facilities Maintenance	62,250	1,684	6,140	10%	6,223	(82)
Utility Administration	770,020	46,587	250,339	33%	253,462	(3,123)
Veh & Equip Maintenance	41,119	3,691	5,555	14%	6,685	(1,130)
Water Operations	1,653,877	90,118	246,570	15%	273,918	(27,348)
Total operating expenses - cash basis	2,527,265	142,079	508,605	20%	540,288	(31,683)
Net Profit (loss) from operations - cash basis	189,064	(66,443)	158,602		449,675	(291,073)
Depreciation	1,140,502	86,242	258,726	23%	279,119	(20,393)
Net Profit (loss) from operations - accrual basis	(951,438)	(152,685)	(100,124)		170,555	(270,679)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	1,317,508	-	791,061	60%	1,915,500	(1,124,439)
Capital Outlay	-	-	-	-%	51,114	(51,114)
Total Transfers and Capital Outlay	1,317,508	-	791,061	60%	1,966,614	(1,175,553)
	(2,268,946)	(152,685)	(891,185)		(1,796,059)	904,874

	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Wastewater Proprietary Fund						
REVENUES	2,745,281	212,233	688,031	25%	711,870	(23,838)
EXPENSES - Cash Basis						
Facilities Maintenance	63,968	3,716	8,960	14%	13,931	(4,971)
Utility Administration	728,198	128,817	254,447	35%	280,517	(26,069)
Veh & Equip Maintenance	32,455	974	3,968	12%	8,997	(5,029)
Wastewater Operations	2,166,394	99,857	399,502	18%	350,184	49,318
Total operating expenses - cash basis	2,991,016	233,363	666,877	22%	653,629	13,249
Net Profit (loss) from operations - cash basis	(245,735)	(21,131)	21,154		58,241	(37,087)
Depreciation	1,263,420	106,587	319,761	25%	306,060	13,701
Net Profit (loss) from operations - accrual basis	(1,509,155)	(127,718)	(298,607)		(247,819)	(50,788)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	28,272	-	28,272	100%	43,000	(14,728)
Capital Outlay	-	-	-	-%	478,231	(478,231)
Total Transfers and Capital Outlay	28,272	-	28,272	100%	521,231	(492,959)
	(1,537,427)	(127,718)	(326,879)		(769,049)	442,170
Solid Waste Proprietary Fund						
REVENUES	2,870,917	223,883	830,144	29%	801,072	29,072
EXPENSES - Cash Basis						
Facilities Maintenance	120,782	4,386	13,673	11%	11,742	1,931
Solid Waste Operations	2,039,518	88,496	312,970	15%	280,432	32,538
Utility Administration	806,738	52,898	191,454	24%	199,413	(7,958)
Veh & Equip Maintenance	158,420	6,066	15,917	10%	15,138	779
Total operating expenses - cash basis	3,125,458	151,845	534,013	17%	506,724	27,289
Net Profit (loss) from operations - cash basis	(254,541)	72,038	296,131		294,348	1,783
Depreciation	886,148	74,298	222,893	25%	219,604	3,289
Net Profit (loss) from operations - accrual basis	(1,140,689)	(2,260)	73,238		74,744	(1,506)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	400,000	-	400,000	100%	1,171,100	(771,100)
Total Transfers and Capital Outlay	400,000	-	400,000	100%	1,171,100	(771,100)
Net earnings (loss)	(1,540,689)	(2,260)	(326,762)		(1,096,356)	769,594

Operating Monthly Summary - Month Ending September 2022

	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
Ports & Harbors Proprietary Fund						
REVENUES	8,566,054	676,103	2,532,585	30%	2,089,047	443,538
EXPENSES - Cash Basis						
Bobby Storrs Small Boat Harbor	180,650	10,865	37,396	21%	33,779	3,616
CEM Small Boat Harbor	960,269	60,624	255,655	27%	195,315	60,340
Facilities Maintenance	55,328	2,126	6,654	12%	10,446	(3,792)
Harbor Office	2,765,420	210,754	638,156	23%	639,446	(1,290)
Ports Security	72,295	802	1,849	3%	2,536	(686)
Spit & Light Cargo Docks	697,277	40,978	208,126	30%	170,132	37,994
Unalaska Marine Center	1,155,385	52,658	387,874	34%	367,718	20,156
Veh & Equip Maintenance	66,688	6,332	19,517	29%	9,154	10,363
Total operating expenses - cash basis	5,953,312	385,138	1,555,227	26%	1,428,526	126,701
Net Profit (loss) from operations - cash basis	2,612,742	290,965	977,358		660,521	316,837
Depreciation	4,301,644	356,974	1,070,923	25%	1,074,154	(3,230)
Net Profit (loss) from operations - accrual basis	(1,688,902)	(66,009)	(93,565)		(413,633)	320,068
TRANSFERS and CAPITAL OUTLAY						
Capital Outlay	206,923	-	-	-%	-	0
Transfers Out	2,594,495	-	2,594,495	100%	6,045,000	(3,450,505)
Total Transfers and Capital Outlay	2,801,418	-	2,594,495	93%	6,045,000	(3,450,505)
Net earnings (loss)	(4,490,320)	(66,009)	(2,688,060)		(6,458,633)	3,770,573
Airport Proprietary Fund						
REVENUES	560,400	39,834	119,528	21%	116,867	2,661
EXPENSES - Cash Basis						
Airport Admin/Operations	404,849	28,090	135,512	33%	109,614	25,898
Facilities Maintenance	183,947	18,120	43,359	24%	24,460	18,900
Total operating expenses - cash basis	588,796	46,209	178,871	30%	134,074	44,798
Net Profit (loss) from operations - cash basis	(28,396)	(6,376)	(59,344)		(17,207)	(42,137)
Depreciation	278,541	23,139	69,418	25%	69,418	0
Net Profit (loss) from operations - accrual basis	(306,937)	(29,515)	(128,761)		(86,624)	(42,137)
TRANSFERS and CAPITAL OUTLAY						
Transfers Out	22,280	-	22,280	100%	-	22,280
Total Transfers and Capital Outlay	22,280	-	22,280	100%	-	22,280
Net earnings (loss)	(329,217)	(29,515)	(151,041)		(86,624)	(64,417)

Housing Proprietary Fund	FY2023 Budget	September	FY2023 YTD	% OF BUD	FY2022 YTD	INC/(DEC) Last Year
REVENUES	258,547	18,639	65,970	26%	56,069	9,901
EXPENSES - Cash Basis						
Facilities Maintenance	191,245	10,387	29,013	15%	35,264	(6,251)
Housing Admin & Operating	209,339	9,389	65,735	31%	59,224	6,512
Total operating expenses - cash basis	400,584	19,776	94,748	24%	94,488	261
Net Profit (loss) from operations - cash basis	(142,037)	(1,137)	(28,779)		(38,419)	9,640
Depreciation	195,245	16,270	48,811	25%	45,541	3,270
Net Profit (loss) from operations - accrual basis	(337,282)	(17,407)	(77,590)		(83,961)	6,370
TRANSFERS and CAPITAL OUTLAY						
Net earnings (loss)	(337,282)	(17,407)	(77,590)		(83,961)	6,370

City of Unalaska
Utility Revenue Report
Summary

09/30/22

FY23 Budget Month	Electric	Water	Waste Water	Solid Waste	Monthly Revenue	FY23 Revenue	FY22YTD Revenue	YTD Inc/(Dec)
Jul-22	2,159,046	335,633	227,269	276,413	2,998,361	2,998,361	2,996,388	1,973
Aug-22	2,570,281	255,937	248,530	329,848	3,404,595	6,402,956	3,261,770	3,141,187
Sep-22	1,697,280	75,636	212,233	223,883	2,209,032	8,611,988	3,521,425	5,090,563
Oct-22	0	0	0	0	0	0	3,677,570	0
Nov-22	0	0	0	0	0	0	3,836,484	0
Dec-22	0	0	0	0	0	0	4,035,330	0
Jan-23	0	0	0	0	0	0	4,234,911	0
Feb-23	0	0	0	0	0	0	4,544,892	0
Mar-23	0	0	0	0	0	0	4,845,452	0
Apr-23	0	0	0	0	0	0	5,091,648	0
May-23	0	0	0	0	0	0	5,288,441	0
Jun-23	0	0	0	0	0	0	5,562,416	0
YTD Totals	6,426,606	667,207	688,031	830,144	8,611,988			
FY23 Budget	16,467,477	2,641,500	2,674,775	2,347,730	24,131,482			
% to budget	39.0	25.3	25.7	35.4	35.7			

City of Unalaska
Electric Revenue Report
Electric Fund

09/30/22

FY23 Budget Month	Residential	Small General	Large General	Industrial	P.C.E. Assist	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	113,527	127,998	173,262	1,643,546	95,787	4,925	2,159,046	2,159,046	1,399,334	759,711
Aug-22	126,002	139,392	200,807	1,957,035	139,452	7,593	2,570,281	4,729,326	3,068,626	1,660,701
Sep-22	109,122	122,019	170,891	1,149,356	133,965	11,926	1,697,280	6,426,606	4,745,122	1,681,484
Oct-22							0	0	6,277,102	0
Nov-22							0	0	7,571,652	0
Dec-22							0	0	8,649,785	0
Jan-23							0	0	9,741,741	0
Feb-23							0	0	11,164,186	0
Mar-23							0	0	12,829,600	0
Apr-23							0	0	14,418,044	0
May-23							0	0	16,055,029	0
Jun-23							0	0	17,866,853	0
YTD Totals							6,426,606			
FY22 Budget	1,629,433	1,300,162	1,882,732	10,990,917	612,733	51,500	16,467,477			
% of Budget	0.0	0.0	0.0	0.0	0.0	0.0	39.0			

Kwh Sold

FY 23 Month	Residential	SM. Gen (Includes Street lights)	Large General	Industrial	Total FY23 Kwh Sold	Total FY22 Kwh Sold	Increase (Decrease)
July	249,699	256,555	357,071	3,240,445	4,103,770	3,609,461	494,309
August	287,328	271,719	414,571	3,738,430	4,712,048	4,418,992	293,056
September	279,890	66,396	397,415	2,438,955	3,182,656	4,472,383	(1,289,727)
October					0	4,272,956	0
November					0	3,463,728	0
December					0	2,922,427	0
January *					0	2,759,416	0
February					0	3,274,024	0
March					0	3,871,003	0
April					0	3,549,715	0
May					0	3,374,757	0
June					0	3,491,880	0
Total	816,917	594,670	1,169,057	9,417,830	11,998,474	43,480,742	(502,362)
Percent Sold	6.8%	5.0%	9.7%	78.5%	100.0%		

Generator Fuel	
FY23 Average Price Fuel	FY22 Average Price Fuel
5.2724	2.6143
4.0382	2.7156
4.1865	2.5013
	2.7635
	2.9311
	2.8861
	3.1072
	3.3337
	3.7527
	4.3688
	4.6063
	5.0664
4.4991	3.3872
32.82%	

% Change from Prior Year

FY23 Cumulative kwh Sold	FY21 Cumulative kwh Sold
4,103,770	3,609,461
8,815,818	8,028,453
11,998,474	12,500,836
11,998,474	16,773,792
11,998,474	20,237,520
11,998,474	23,159,947
11,998,474	25,919,363
11,998,474	29,193,387
11,998,474	33,064,390
11,998,474	36,614,105
11,998,474	39,988,862
11,998,474	43,480,742

City of Unalaska
Water Revenue Report
Water Fund

09/30/22

FY23 Month	Unmetered Sales	Metered Sales	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	12,580	323,064	(11)	335,633	335,633	359,168	(23,535)
Aug-22	12,610	242,800	527	255,937	591,571	748,631	(157,060)
Sep-22	12,575	63,051	10	75,636	667,207	989,962	(322,755)
Oct-22				0	0	1,077,710	0
Nov-22				0	0	1,178,759	0
Dec-22				0	0	1,270,043	0
Jan-23				0	0	1,432,982	0
Feb-23				0	0	1,836,037	0
Mar-23				0	0	2,159,686	0
Apr-23				0	0	2,307,515	0
May-23				0	0	2,424,938	0
Jun-23				0	0	2,664,186	0
YTD Totals	37,765	628,916	526	667,207			
FY22 Budget	148,000	2,485,000	8,500	2,641,500			
% of Budget	25.5	25.3	6.2	25.3			

Million Gallons Produced

FY23 Month	FY 23 Produced	FY 22 Produced	Increase (Decrease)
July	148.673	147.336	1.337
August	102.648	163.373	(60.725)
September	42.857	104.305	(61.448)
October		45.402	0.000
November		50.688	0.000
December		45.300	0.000
January		73.309	0.000
February		169.312	0.000
March		139.668	0.000
April		65.458	0.000
May		52.996	0.000
June		108.098	0.000
Total	294.178	1165.245	(120.836)

FY23 Water Cumulative	FY22 Water Cumulative
148.673	147.336
251.321	310.709
294.178	415.014
0.000	460.416
0.000	511.104
0.000	556.404
0.000	629.713
0.000	799.025
0.000	938.693
0.000	1004.151
0.000	1057.147
0.000	1165.245

City of Unalaska
Wastewater Revenue Report
Wastewater Fund

09/30/22

FY23 Budget Month	Unmetered Sales	Metered Commercial	Metered Industrial	Other Revenues	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	43,699	163,381	17,642	2,547	227,269	227,269	211,269	16,001
Aug-22	43,802	186,885	17,701	142	248,530	475,799	455,031	20,767
Sep-22	43,682	141,787	13,249	13,515	212,233	688,031	711,870	(23,838)
Oct-22					0	0	871,617	0
Nov-22					0	0	1,048,692	0
Dec-22					0	0	1,227,000	0
Jan-23					0	0	1,441,097	0
Feb-23					0	0	1,700,452	0
Mar-23					0	0	1,956,007	0
Apr-23					0	0	2,162,195	0
May-22					0	0	2,382,905	0
Jun-22					0	0	2,584,848	0
YTD Totals	131,183	492,053	48,592	16,203	688,031			
FY22 Budget	482,000	2,045,950	91,300	55,525	2,674,775			
% of Budget	27.2	24.1	53.2	29.2	25.7			

FY22 Month	FY23 Effluent (Gal)	FY22 Effluent (Gal)	Increase (Decrease)
July	10,309,000	12,412,000	(2,103,000)
August	12,316,000	10,241,000	2,075,000
September	9,074,000	11,063,000	(1,989,000)
October		12,963,000	0
November		10,952,000	0
December		10,736,000	0
January		16,093,000	0
February		15,241,000	0
March		12,698,000	0
April		12,240,000	0
May		9,502,000	0
June		9,616,000	0
Total	31,699,000	143,757,000	(2,017,000)

FY23 Cumulative	FY22 Cumulative
10,309,000	12,412,000
22,625,000	22,653,000
31,699,000	33,716,000
0	46,679,000
0	57,631,000
0	68,367,000
0	84,460,000
0	99,701,000
0	112,399,000
0	124,639,000
0	134,141,000
0	143,757,000

City of Unalaska
Solid Waste Revenue Report
Solid Waste Fund

09/30/22

FY23 Month	Residential Fees	Tipping Fees	Other Revenue	Monthly Revenue	FY23 YTD Revenue	FY22 YTD Revenue	YTD Inc/(Dec)
Jul-22	34,750	191,553	50,110	276,413	276,413	276,036	378
Aug-22	34,753	231,556	63,538	329,848	606,261	541,417	64,844
Sep-22	34,865	136,176	52,842	223,883	830,144	801,072	29,072
Oct-22				0	0	957,217	0
Nov-22				0	0	1,116,131	0
Dec-22				0	0	1,314,977	0
Jan-23				0	0	1,514,559	0
Feb-23				0	0	1,824,540	0
Mar-23				0	0	2,125,099	0
Apr-23				0	0	2,371,296	0
May-23				0	0	2,568,089	0
Jun-23				0	0	2,842,063	0
YTD Totals	104,368	559,285	166,491	830,144			
FY22 Budget	325,165	1,548,679	473,886	2,347,730			
% of Budget	32.1	36.1	35.1	35.4			

FY23 Month	FY23 Tons of Waste	FY22 Tons of Waste	Increase (Decrease)
July	564.59	643.54	(78.95)
August	747.78	519.96	227.82
September	474.02	739.81	(265.79)
October		417.18	0.00
November		336.84	0.00
December		405.23	0.00
January		438.77	0.00
February		707.24	0.00
March		815.41	0.00
April		549.57	0.00
May		464.39	0.00
June		459.09	0.00
Total	1786.39	6497.03	(116.92)

Cummulative	
FY23 Tons of Waste	FY22 Tons of Waste
564.59	643.54
1312.37	1163.50
1786.39	1903.31
0.00	2320.49
0.00	2657.33
0.00	3062.56
0.00	3501.33
0.00	4208.57
0.00	5023.98
0.00	5573.55
0.00	6037.94
0.00	6497.03

CITY OF UNALASKA
FY23 PORTS REVENUE

		UMC Dock				Spit Dock		Small Boat Harbor		Cargo Dock		CEM							
Month	Year	Docking/ Moorage	Wharfage Fees	Rental Fees	Utility Fees	Docking / Moorage	Utility Fees	Docking / Moorage	Utility Fees	Dockage / Moorage	Wharfage Rental/Util	Docking/ Moorage	Utility Fees	Other Rev&Fees	Monthly Revenue	FY23 YTD Revenue	% of Budget	FY22 YTD Revenue	YTD Inc(Dec)
Jul	2022	183,332	357,504	109,024	27,370	15,884	2,651	14,352	531	2,223	13,076	12,191	9,521	6,261	753,920	753,920	8.9%	511,920	242,000
Aug	2022	244,418	506,385	74,487	14,753	108,709	11,871	7,311	327	4,207	19,258	66,849	33,178	5,633	1,097,385	1,851,305	21.7%	1,255,232	596,073
Sept	2022	127,898	242,506	82,799	15,465	41,082	7,181	7,622	435	2,670	23,264	88,925	28,799	2,729	671,378	2,522,682	29.6%	2,088,870	433,812
Oct	2022														0	0	0.0%	2,908,630	0
Nov	2022														0	0	0.0%	3,429,716	0
Dec	2022														0	0	0.0%	4,157,725	0
Jan	2023														0	0	0.0%	4,602,424	0
Feb	2023														0	0	0.0%	5,238,563	0
Mar	2023														0	0	0.0%	6,151,388	0
Apr	2023														0	0	0.0%	6,960,237	0
May	2023														0	0	0.0%	7,612,089	0
Jun	2023														0	0	0.0%	8,179,699	0
Totals		555,648	1,106,395	266,310	57,589	165,675	21,703	29,286	1,293	9,099	55,598	167,965	71,497	14,623	2,522,682				
Loc total			1,985,942			187,378		30,578		64,697		239,462							
Loc percent			78.7%			7.4%		1.2%		2.6%		9.5%							
FY23 Budget		1,900,000	3,300,000	930,000	250,000	590,000	100,000	85,000	7,000	30,362	143,000	700,000	330,000	153,000	8,518,362				
% to Budget		29.2%	33.5%	28.6%	23.0%	28.1%	21.7%	34.5%	18.5%	30.0%	38.9%	24.0%	21.7%	9.6%	29.6%				

PORTS RECEIVABLES

Month	Year	Current	Over 30 Days	Over 60 Days	Over 90 Days	Total Due	% Past Due 90 Days +	Cash Received
Jul	2022	748,145	96,003	90,731	155,731	1,090,610	14.3%	439,807
Aug	2022	1,082,897	142,553	38,903	154,942	1,419,296	10.9%	768,699
Sept	2022	758,769	100,551	36,376	94,819	990,515	9.6%	1,100,159
Oct	2022					0	0.0%	
Nov	2022					0	0.0%	
Dec	2022					0	0.0%	
Jan	2023					0	0.0%	
Feb	2023					0	0.0%	
Mar	2023					0	0.0%	
Apr	2023					0	0.0%	
May	2023					0	0.0%	
Jun	2023					0	0.0%	
						YTD Cash Received		2,308,665

CITY OF UNALASKA
FY23 AIRPORT REVENUE

MONTH	YEAR	MONTHLY LEASES	MISC INCOME	LATE FEES	MONTHLY REVENUE	FY23 YTD REVENUE	% OF BUDGET	FY22 YTD REVENUE	YTD INC/(DEC)
JUL	2022	39,834	13	5	39,852	39,852	7.2%	38,057	1,795
AUG	2022	39,821	19	2	39,842	79,694	14.4%	77,027	2,667
SEP	2022	39,821	3	9	39,834	119,528	21.6%	115,999	3,529
OCT	2022				0	0	0.0%	154,047	0
NOV	2022				0	0	0.0%	190,185	0
DEC	2022				0	0	0.0%	232,170	0
JAN	2023				0	0	0.0%	270,162	0
FEB	2023				0	0	0.0%	304,294	0
MAR	2023				0	0	0.0%	339,243	0
APR	2023				0	0	0.0%	374,361	0
MAY	2023				0	0	0.0%	408,465	0
JUN	2023				0	0	0.0%	448,969	0
TOTAL		119,476	34	17	119,528		0.0%		
FY23 BUDGET		544,000	3,500	6,000	553,500				
% TO BUDGET		22.0%	1.0%	0.3%	21.6%				

RECEIVABLE BALANCES

MONTH	YEAR	CURRENT	OVER 30 DAYS	OVER 60 DAYS	OVER 90 DAYS	TOTAL DUE	% PAST DUE 90 DAYS +	CASH RECEIVED
JUL	2022	35,511	18,112	297	(22,940)	30,979	0.0%	36,339
AUG	2022	42,212	9,048	267	(23,026)	28,500	0.0%	44,692
SEP	2022	42,521	17,611	(5,347)	(22,751)	32,033	0.0%	38,073
OCT	2022					0	0.0%	
NOV	2022					0	0.0%	
DEC	2022					0	0.0%	
JAN	2023					0	0.0%	
FEB	2023					0	0.0%	
MAR	2023					0	0.0%	
APR	2023					0	0.0%	
MAY	2023					0	0.0%	
JUN	2023					0	0.0%	
							YTD TOTAL	119,104

FY 23 HOUSING RENTAL REVENUE

MONTH	YEAR	HOUSING RENTALS	MISC. REVENUE	MONTHLY REVENUE	FY23 YTD REVENUE	% OF BUDGET	FY22 YTD REVENUE	YTD INC/(DEC)
JUL	2022	28,048	0	28,048	28,048	11.3%	14,804	13,244
AUG	2022	19,283		19,283	47,331	19.0%	35,618	11,713
SEP	2022	18,639		18,639	65,970	26.5%	56,069	9,901
OCT	2022			0	0	0.0%	84,431	0
NOV	2022			0	0	0.0%	101,145	0
DEC	2022			0	0	0.0%	125,075	0
JAN	2023			0	0	0.0%	149,004	0
FEB	2023			0	0	0.0%	172,934	0
MAR	2023			0	0	0.0%	203,288	0
APR	2023			0	0	0.0%	218,284	0
MAY	2023			0	0	0.0%	246,730	0
JUN	2023			0	0	0.0%	258,805	0
TOTAL		65,970	0	65,970				
FY23 Budget		248,500	0	248,500				
% TO BUDGET		26.5%		26.5%				

Manager Report

Regular City Council Meeting

November 10, 2022

Interim Manager Chris Hladick

1. **DC Trip**: We are in full preparation mode for the Washington DC trip. This meeting we will discuss federal priorities and the contents of last year's resolution and this year's congressional briefing memo. The congressional briefing memo will be completed two weeks out from the trip or the end of November.

2. **State Priorities:** We will be discussing state priorities in December. The legislative session starts the third week in January and we will need to have CAPSIS (the legislative capital project database) updated by then, so we have plenty of time to prepare.

3. **Title 3 historical information**: Regarding raises and wage scale changes, I promised to have this information to the council by this week but am unable to provide such because the finance person who can do this for me was out on vacation. I will get it to the council as soon as I can.

4. **Executive Session:** I have scheduled an executive session to discuss city manager recruitment and an update on legal issues. Brooks Chandler will be back from vacation, I may ask him to join.

5. **Employee Christmas Party:** The Christmas Party will be December 3 at 6 pm at the Grand. This party is put on by the city council and mayor in appreciation of our staff.

6. **CMMP:** Bil Homka and I will be working on this issue early next week. My goal is to prepare for a workshop to include a schedule for this year's process and get direction from the council on some basic questions. Such as if we have $90 million in projects that we can't get done should we be listing more? There needs to be a schedule for getting the current projects done.

7. **Depreciation:** There was a council question, in the past, regarding whether or not we had to include depreciation in the proprietary funds (utilities). I asked Tim Altman, who was the primary owner of Altman Roger's who has audited the city finances in the past and has done many municipal governmental accountings over the years in Alaska. He said, "Utilities are accounted for the same as a business and the utilization of assets over their useful life has to be charged as a cost of operations. Capitalization of assets when purchased and subsequent write off through depreciation is a requirement of all proprietary funds. This is a GAAP requirement and to not follow would result in a modified opinion." When the current auditor's present the audit findings later this year we can continue the conversation, but I would not advise not booking depreciation as it may affect our ability to bond a project.

8. I will be leaving the island on November 5, 2022.

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Steve Tompkins, Director of Public Utilities
Bob Cummings, City Engineer
Through: Chris Hladick, Interim City Manager
Date: November 10, 2022
Re: V3 Energy Wind Power Development Update

SUMMARY: Engineer Doug Vaught of V3 Energy will present the Wind Resource Assessment Report dated February 18, 2022, update Council on current efforts under the current Alaska Energy Authority (AEA) Grant, and highlight some additional AEA grant funding opportunities and production credits available under the Inflation Reduction Act of 2022.

PREVIOUS COUNCIL ACTION: Previous Council actions related to Wind Power Integration are outlined below.

In FY2003, Unalaska City Council approved the Wind Integration Assessment Project through Ordinance 2003-11.

In FY2018, Council funded the Wind Power Development and Integration Assessment Project (EL18C) through Capital Budget Ordinance 2017-07.

In FY2018, Council entered into an agreement with V3 Energy, LLC to perform the Wind Power Development & Integration Assessment Phase II – IV Project in the amount of $48,481 via resolution 2017-63, moving forward with Phase II work.

Budget Amendment Ordinance 2018-12, passed and adopted October 23, 2018, added $220,000 to the Engineering Services line item of the Project budget to begin Phase III work.

Budget Amendment Ordinance 2019-17, passed and adopted on January 14, 2020, provided an additional $75,000 for Phase III.

Budget Amendment Ordinance 2021-16, passed and adopted on December 14, 2021, accepted $139,000 from Alaska Energy Authority and appropriated $139,000 in the Wind Power Development Project. This work is on-going.

BACKGROUND: The Wind Energy Assessment project is comprised of four phases:

Phase I: Past Assessments is complete

Phase II: Pre-design and Site Selection is complete

Phase III: Data Collection and Analysis is complete

Phase IV: Feasibility and Design. The feasibility study is currently in progress and is funded through an AEA grant.

From 2003 to 2005, a Phase I analysis of the feasibility for wind energy in Unalaska was conducted by Northern Power Systems, however, Phase II of that project was never realized. Local interest in renewable energy and the availability of new technology led the City of Unalaska Department of Public Utilities to issue a Request for Qualifications for Phase II – IV of the Wind Power Development and Integration Assessment Project, with the work awarded to V3 Energy, LLC.

MET towers were set up at four locations around Unalaska and engineer Doug Vaught of V3 Energy analyzed the data and generated the *City of Unalaska Wind Power Development and Integration Assessment Project, Wind Resource Assessment Report* dated February 18, 2022. Doug will present a brief overview of this report, highlight some grant opportunities, and be available to answer questions.

DISCUSSION: Staff feel there will soon be sufficient data to make an informed decision on the future of wind power generation in Unalaska, both with and without the context of geothermal power. There are some interesting funding opportunities, some of which are time sensitive, and some of which are green energy production credits that are favorable to the installed cost per kWh for wind energy. With a bright future for increasing our electrical load demands, it may be that some wind generation would provide a baseload that will increase the City's overall installed capacity, without requiring additional permitting for increasing diesel generation. Additionally, wind power could probably be deployed quicker than either additional diesel units or geothermal, offering bridge baseload power until one of these options are on-line.

Staff requests Council provide direction on pursuing grant opportunities to help fund future of wind power development in Unalaska.

ALTERNATIVES: Either Staff can work with V3 Energy to prepare an AEA grant application to help fund future wind development in Unalaska or Staff could wait until after the feasibility study is complete, present this information to Council, and seek direction from Council at this time. If the second option is chosen, the current AEA grant opportunity will no longer be available, but perhaps other funding opportunities would be.

FINANCIAL IMPLICATIONS: At this point there are no financial implications. Only after the outcome of the grant application, if submitted, is known (after FY24 State of Alaska Budget is passed by the State Legislature) and the feasibility study and cost estimate are complete will the City have a clear indication of the economics of installing wind power generation capacity in Unalaska. Early indications are that wind power is roughly comparable with other options (i.e. diesel or geothermal) on an installed cost per kilowatt basis.

LEGAL: Not applicable.

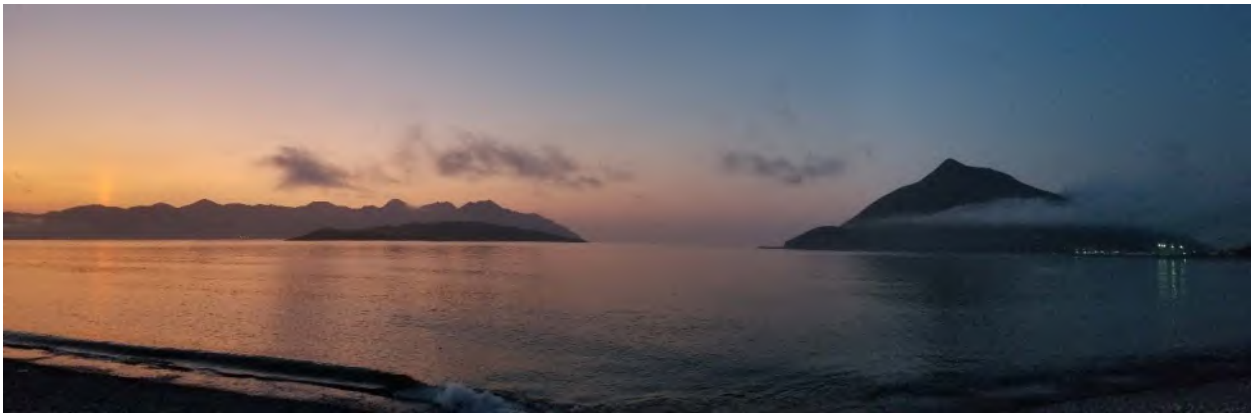
STAFF RECOMMENDATION: Staff is looking for guidance only.

PROPOSED MOTION: If Council wishes to proceed with the AEA Grant now: “I move to direct the City Manager to work with V3 Energy to prepare an AEA grant application to help fund future wind development in Unalaska.”

CITY MANAGER COMMENTS:

ATTACHMENTS: Wind Power Development and Integration Assessment Project, Wind Resource Assessment Report

City of Unalaska Wind Power Development and Integration Assessment Project, Wind Resource Assessment Report



Douglas Vaught photo

February 18, 2022

Douglas Vaught, P.E.
V3 Energy LLC
Anchorage, Alaska

Contents

List of Figures

List of Tables

List of Equations

Introduction

With frequent high winds, Unalaska Island, home of City of Unalaska and Dutch Harbor, has long been considered an optimal location for wind energy. The August 2017 *Request for Proposals, Analysis of the City of Unalaska Wind Power Development and Integration Assessment Project* was broken into three phases, starting with Phase II (Phase I, a survey-level assessment of wind power potential for Unalaska, was completed in draft form in 2005). Phase II of the project, "Develop a Data Collection Plan," was completed by V3 Energy LLC with a Phase II report dated August 6, 2018.

Phase III of the project, "Implement Data Collection Plan," was initiated shortly following completion of Phase II with obtaining landowner permission, permits, ordering equipment, etc. over the following year. As described herein, three met towers were installed in October 2018 and the fourth in August 2019. In August 2021 the last of the four met towers was decommissioned, signifying the end of the data collection aspect of Phase III. This report presents and discusses the data collected through that nearly three-year period.

In a slight change to the 2017 plan as described in the *Requests for Proposals*, the Phase IV ("Pre-development Plan") effort will be accomplished via a State of Alaska Renewable Energy Fund Round 13 grant award with a project entitled *City of Unalaska Wind Power Feasibility.*

Site Selection

There were several criteria to consider for wind prospecting in Unalaska (completed under Phase II of the wind project), that commenced with an assessment of the regional wind climate (refer to pages 13 through 20 of the Phase II report). In short, developable locations for wind power in rural Alaska, including Unalaska, are those with the following criteria:

- Wind resource: high (but not too high) mean wind speed, normal or near normal Weibull distribution, low-to-moderate turbulence (steady wind flow), acceptable extreme winds, and unimodal or bimodal wind direction distribution.
- Power distribution infrastructure: proximity to existing (or near-term planned) distribution lines with sufficient amperage capacity to accept input from planned wind farm capacity, including expansion potential.
- Roads/access: proximity to existing roads, or reasonable cost to develop or improve access.
- Site area: large enough to host a wind turbine array that meets project wind power capacity goals.
- Land use: available for development (ownership, easement restrictions, lease rates, etc.).
- Airspace: no insurmountable FAA restrictions for airport flight operations.
- Terrestrial wildlife and avian species: no or minimal impacts to critical habitat, flyways, etc.
- Wetlands, parks, and other high-value environments: no insurmountable restrictions and/or acceptable mitigation requirements are possible.
- Noise, shadow flicker, and aesthetics: no or minimal impact to residents.
- Rime icing environment and/or ice throw risk: no or minimal risk and/or acceptable mitigating measures possible.

With these considerations, four locations were chosen for installation of meteorological (met) towers for wind resource evaluation (see Figure 1):

1. Pyramid (Lower Pyramid Valley)
2. Hog Island
3. Icy Creek Reservoir
4. Bunker Hill (referenced in the Phase II report as Little South America)

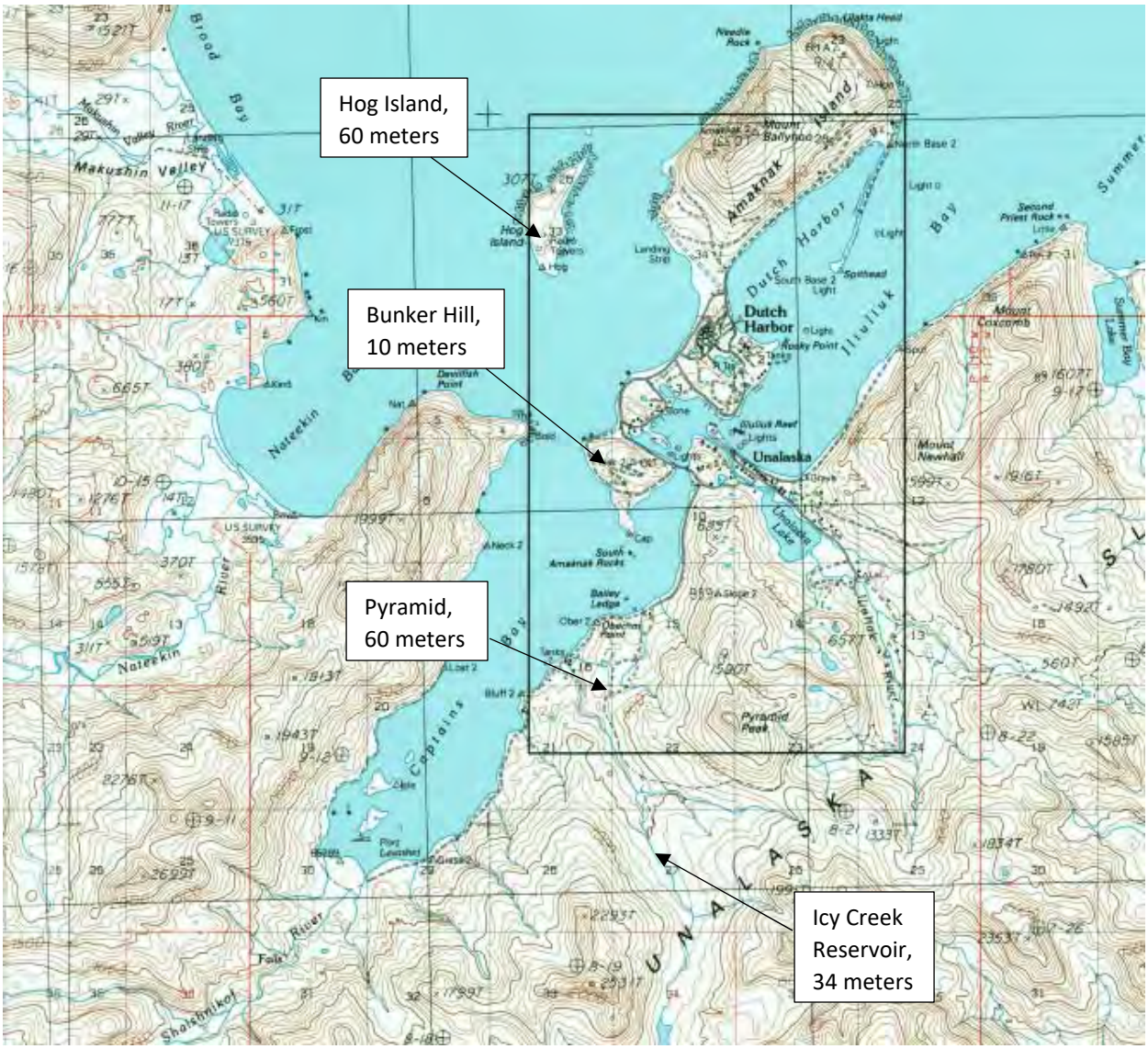


Figure 1: Met tower locations and heights (map from Topozone.com)

There are two primary uses of wind data for wind power development. First is classification of site(s) to determine suitable turbine models. Wind turbine manufacturers require International Electrotechnical Commission (IEC)[1] classification of a site to ensure that the proposed turbine model is appropriate and

[1] See IEC Classification discussion in Appendix A

warranty coverage valid. Financial institutions and/or partners require proper classification to ensure the wind turbine investment will perform as predicted throughout planned service life and that a warranty can be offered.

The second use of wind data is calculation of annual energy production (AEP) for wind turbines of interest with reasonable deductions for wake, electrical, O&M, soiling, and other losses. Net AEP data is used to model economic benefit of a wind power project.

Pyramid (lower Pyramid Valley)

Pyramid Valley, source of Unalaska's water supply, was considered at project outset to be the most promising location in Unalaska for a wind power project. The plateau area that comprises the lower valley is large enough to host several megawatts of wind power capacity; a wide, well-maintained gravel road provides access; the area is devoid of housing and other community-use development other than the water plant; and of considerable importance, the valley is served by an underground high capacity, three-phase power distribution line (3 phase power routes to the water plant with single phase continuing to Icy Creek Reservoir) that is minimally loaded at present. Additionally, Pyramid Valley is relatively distant from Dutch Harbor Airport and displaced from established landing patterns and normal air traffic routing.

Figure 2: Pyramid 60-meter met tower (Andy Dietrich aerial photo)

Pyramid Site and Met Tower Information

A 60-meter height (197 ft.) NRG Systems, Inc. tubular, guyed met tower was installed[2] in mid-October 2018 on City of Unalaska land just south of Veronica Lake (see Figure 2 and Figure 3) and was decommissioned by Department of Public Works personnel in August 2021. Refer to Table 1 for summary information of the met tower and data collected from it.

[2] Met tower installation accomplished by V3 Energy LLC with contracted assistance from Bering Straits Development Company and Solstice Alaska Consulting. The considerable support provided by City of Unalaska Dept. of Public Works personnel is much appreciated.

Table 1: Pyramid met tower summary information

Data dates	10/16/2018 to 8/12/2021 (34 months)
Datalogger information	NRG Symphonie PRO, 26 channel, site no. 3550
Site coordinates	53.8496 North, 166.5625 West (WGS 84 datum)
Site elevation	103 meters (334 ft.)
Wind speed, mean annual, 60 m level	6.84 m/s corrected to Dutch Harbor Airport long-term weather station data; 6.39 m/s as measured
Wind power density, mean annual, 60 m	548 W/m^2 when corrected to Dutch Harbor Airport long-term weather station data; 446 W/m^2 as measured
Wind power class	5 (excellent), when corrected to Dutch Harbor Airport long-term weather station data) of 7 defined classifications; 4 (good) as measured
Maximum 10-min. avg wind speed	37.5 m/s (83.9 mph)
Maximum 3-sec. gust wind speed	51.4 m/s (115.0 mph)
Wind shear power law exponent	0.100 (low; 0.140 considered nominal)
Calm wind frequency (winds < 4 m/s)	Approx. 33%
Extreme wind probability (50-year period)	41.3 to 47.6 m/s
Turbulence intensity, 60 m level	0.120
IEC 61400-1 3rd ed. classification	Class IIB

Figure 3: Pyramid met tower location (orange line shows underground power distribution routing, 3 phase to the water house/tank, continuing at single phase to Icy Creek Reservoir), view north; Google Earth image

Before installing the met tower, a Federal Aviation Administration (FAA) obstruction evaluation was requested. FAA issued Aeronautical Study No. (ASN) 2018-WTW-5350-OE in July 2018 with a determination of no hazard to air navigation. Obstruction lighting was not required although FAA requested alternating bands of aviation orange and white paint on the met tower and that orange high-visibility marker balls be attached near the top of the outer guy wires to improve tower visibility to aviators. Both requirements were accomplished.

The Pyramid met tower was equipped with two anemometers each at 60 meters, 50 meters and 40 meters; one wind vane each at 60 meters and 50 meters; a vertical wind propeller anemometer at 55 meters; and temperature and relative humidity sensors at the tower base (refer to Table 2). Refer to Appendix B for detailed sensor technical information and to Appendix F for documentation photographs.

Table 2: Pyramid met tower sensors

Ch	Sensor Type	Model	Name	Height (m)	Dir. (°T)
1	Anemometer	40C	60m E	59.7	094
2	Anemometer	40C	60m W	59.3	269
3	Anemometer	40C	50m E	50.2	094
4	Anemometer	40C	50m W	49.7	269
5	Anemometer	40C	40m E	38.9	094
6	Anemometer	40C	40m W	38.4	269
13	Vane	200M	60m	57.4	027
14	Vane	200M	50m	48.0	038
16	Temp	T60	Temp	3.0	000
19	Rel. Humidity	RH5X	RH	2.0	000
20	RM Young	27106T	Vert Spd	55.3	311

Pyramid Data Quality Control

The met tower sensor data was manually filtered to remove compromised records. This included startup sequencing, isolated periods of power supply problems, icing events, tower shading[3], and poorly functioning sensors. As indicated in Figure 4, anemometer data recovery from the Pyramid met tower was outstanding initially but as the sensors aged, they began to fail. In 2020 the channel 1, channel 4, and channel 6 anemometers began "dragging", or behaving abnormally compared to their companion anemometers. From the ground, a damaged anemometer appears to function normally, but close observation – both visual and via the data record – indicates that it spins more slowly than its companion and stops rotating at slightly higher wind speeds. On a positive note, infrequent icing events[4] have been detected, indicating minimal concern for atmospheric icing that can negatively impact wind turbine operations.

Note in Figure 4 periods of loss of function of the wind vanes and temperature sensor early in the project. This was due to a power supply problem that was corrected in February 2019. At that time, a relative humidity (RH) sensor was installed to aid in the detection and inference of wintertime icing events. Table 3 presents *data recovery rate* for each Pyramid sensor.

[3] Tower shading results from airflow distortion by the met tower. Air decelerates slightly upwind of the tower, accelerates as it goes around the tower (Bernoulli principle), and decelerates markedly in the lee of the tower where a flow separation bubble may occur, resulting in disturbed airflow downwind (source: Windographer help menu). Because of that, anemometers in a 30-degree arc downwind are filtered from the dataset. Anemometers are paired opposite each other and perpendicular to the prevailing winds to minimize the tower shading effects.
[4] Icing is inferred in the dataset by observing stationary anemometers and/or wind vanes combined with temperature near freezing or below and relative humidity at or near 100%, indicating the likelihood of snow or freezing rain.

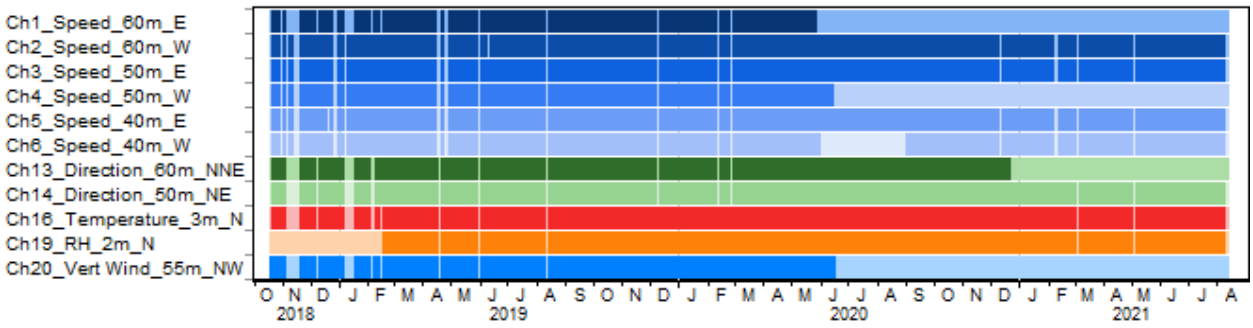


Figure 4: Pyramid met tower data recovery rate graphic (tower shading filtering excluded)

Table 3: Pyramid met tower data recovery rate table (tower shading filtering excluded)

Data Channel	Height	DRR (%)
Ch1_Speed_60m_E	59.7 m	54.9
Ch2_Speed_60m_W	59.3 m	98.9
Ch3_Speed_50m_E	50.2 m	98.9
Ch4_Speed_50m_W	49.7 m	58.3
Ch5_Speed_40m_E	38.9 m	98.8
Ch6_Speed_40m_W	38.4 m	90.3
Ch13_Direction_60m_NNE	57.3 m	75.3
Ch14_Direction_50m_NE	48.0 m	97.6
Ch16_Temperature_3m_N	3 m	97.8
Ch19_RH_2m_N	2 m	88.0
Ch20_Vert Wind_55m_NW	55.2 m	57.3

Pyramid Environmental Measurements

Unalaska experiences a cool, damp maritime climate, with a relatively narrow range of temperatures and typically high relative humidity, especially compared to northern and interior Alaska. From the perspective of wind turbine operations, cool damp air is beneficial as it yields higher air density than equivalent elevation in warmer climates. Figure 5 shows boxplot summaries of measured temperature, relative humidity, and calculated air density at Pyramid for the data collection period but presented as *mean of monthly means* where repeating months are averaged.

Note that although standard air density[5] at 103 meters (334 ft.) elevation is 1.213 kg/m^3, the measured air density at Pyramid was 1.248 kg/m^3, 2.9% higher than standard density at 103 meters elevation and 1.9% higher than standard sea level conditions. This is important as higher density proportionally increases the lift force imparted to the rotor blade, increasing turbine power output.

[5] Standard air density at sea level is 1.225 kg/m^3 (at 15° C)

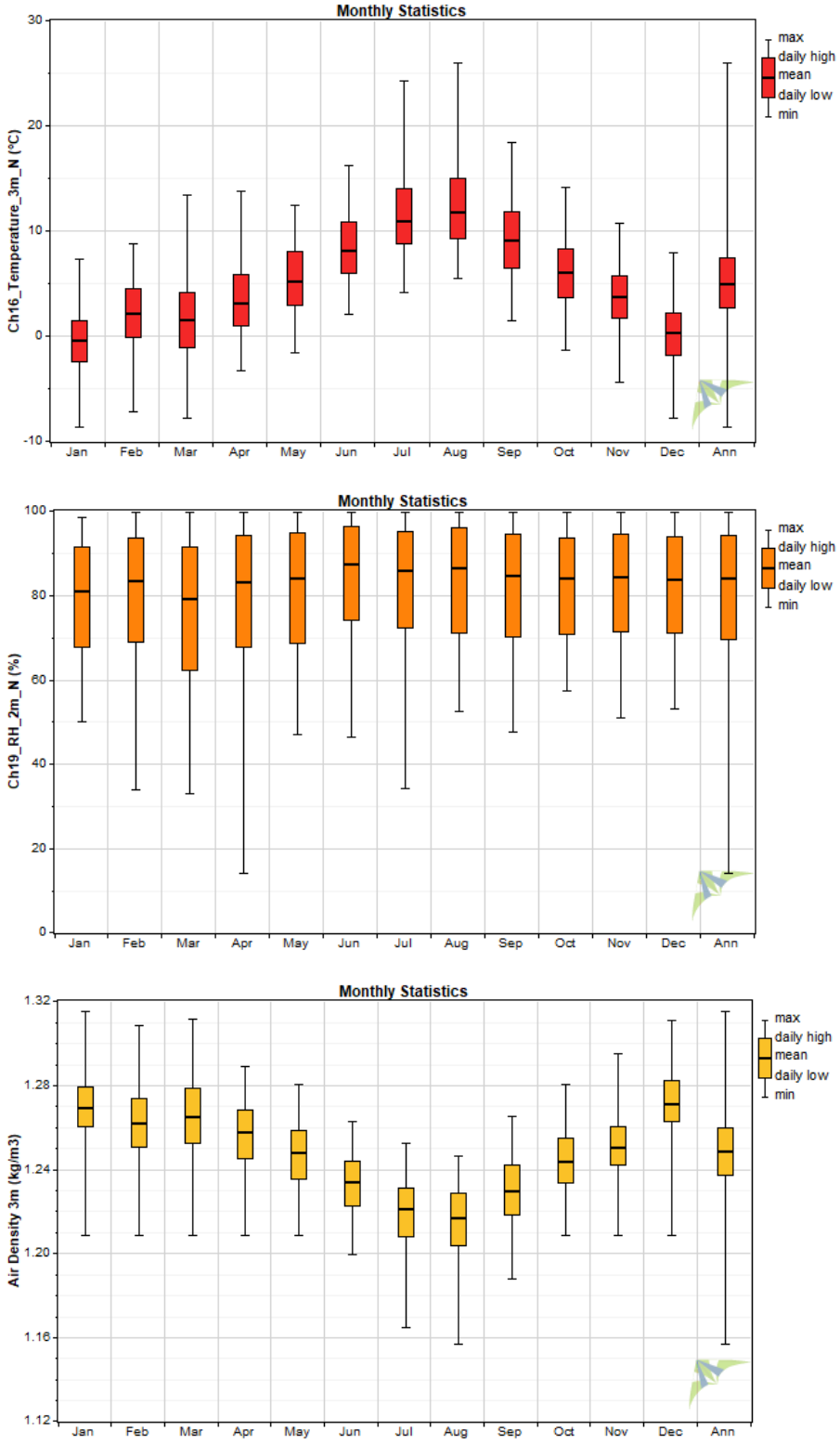


Figure 5: Pyramid met tower temperature, relative humidity, and air density boxplots

Pyramid Wind Speed and Anemometer Combination

Filtered wind speed data, as described in Data Quality Control, yields more representative information than raw data. But the NRG 40C anemometer, as used on the Pyramid met tower, responds more quickly to gusts than falling wind speeds. In moderate-to-higher turbulence conditions, as was measured at Pyramid, this can yield high-bias wind speed data compared to that obtained from high precision anemometers.[6] A net correction of approximately -1% was applied to the anemometer data set using Equation 1. Note that this correction is applied to each 10-minute time step.

Equation 1: NRG 40C anemometer wind speed measurement adjustment for turbulence

$$Uadjusted = \frac{Uobserved}{(0.095 \times TI) + 0.992}$$

With filtering and adjusting anemometer response for turbulence with Equation 1, an anemometer data summary is presented in Table 4.

Table 4: Pyramid wind speeds, filtered and adjusted by Equation 1

Variable	Ch1_Speed _60m_E	Ch2_Speed _60m_W	Ch3_Speed _50m_E	Ch4_Speed _50m_W	Ch5_Speed _40m_E	Ch6_Speed _40m_W
Mean wind speed (m/s)	6.32	6.39	6.25	6.21	6.15	6.23
Mean wind speed (mph)	14.1	14.3	14.0	13.9	13.8	13.9
Max 10-min wind speed (m/s)	29.9	37.5	37.0	28.6	36.5	35.8
Max 10-min wind speed (mph)	66.8	83.9	82.8	63.9	81.6	80.1
Max gust wind speed (m/s)	41.0	51.4	51.4	49.7	49.7	41.3
Max gust wind speed (mph)	91.8	115.0	115.0	111.2	111.2	92.4
Mean power density (W/m²)	439	446	416	405	403	405
Frequency of calms (%)	33.3	33.9	34.8	34.2	35.5	33.6

Combined Anemometers

Although Table 4 represents wind speed data with necessary filtering, long periods of met tower operation with asymmetric data collection, especially from the 60-meter and 50-meter level anemometers, yields divergent wind speed data for paired anemometers. Two primary options can be used to correct this: synthesize missing data or mathematically combine the anemometers (or both). Both methods typically yield similar results, but anemometer combination is more conservative in that less change is introduced to the data set. Hence, only anemometer combination was used to create a more representative data set than that presented in Table 4.

Table 5: Pyramid combined anemometer data (DRR: data recovery rate)

Combined	Height	First Anemometer		Second Anemometer		Combined Sensor	
Sensor	(m)	DRR (%)	Mean (m/s)	DRR (%)	Mean (m/s)	DRR (%)	Mean (m/s)
Speed 60m cmb	59.5	54.9	6.32	98.9	6.39	98.3	6.39
Speed 50m cmb	50.0	98.9	6.25	58.3	6.21	97.6	6.28
Speed 40m cmb	40.7	98.8	6.15	90.3	6.23	98.7	6.16

[6] Explanation and equation from Windographer software help menu

Seasonal and Diurnal Variation

Pyramid's monthly wind speed profile (see Figure 6) demonstrates a pronounced seasonal variation of wind speeds with higher winter winds and lower summer winds. This is a normal pattern and matches well with typical seasonal power demands in a community. Figure 7 indicates a normal, though somewhat muted, diurnal (daily) wind speed profile of higher afternoon winds compared to night and morning. This is also typical.

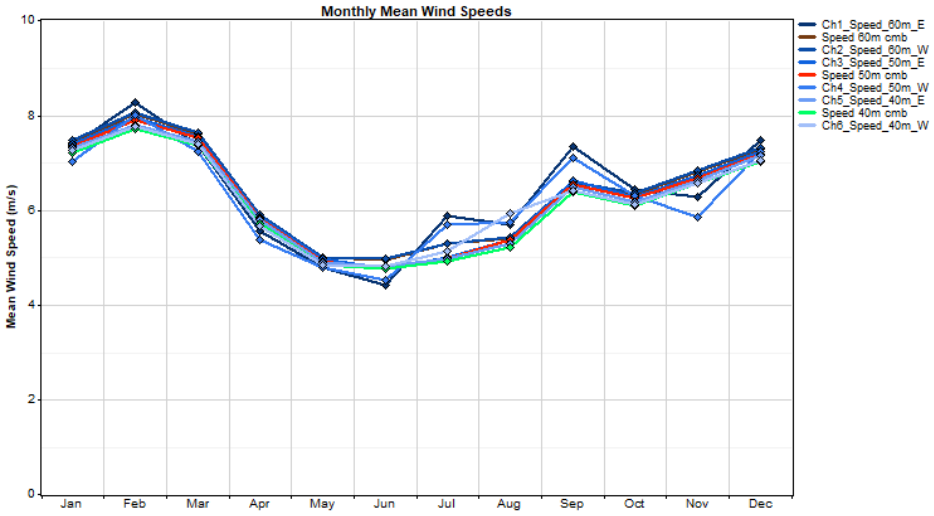


Figure 6: Pyramid mean (mean of monthly means) wind speeds, all anemometers

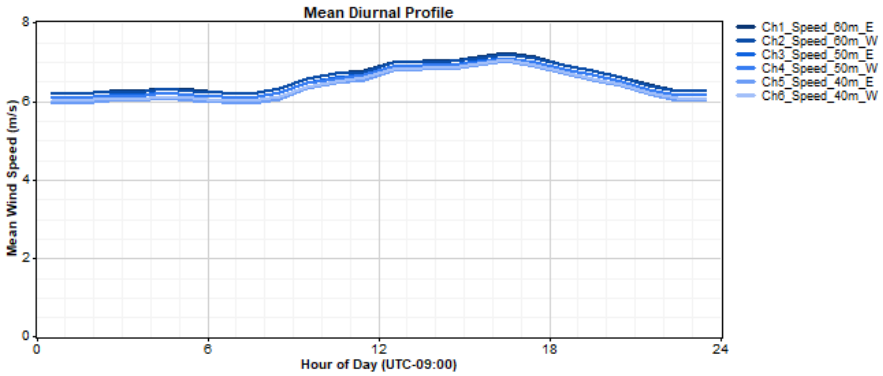


Figure 7: Pyramid diurnal wind speed profile

Pyramid Wind Speed Adjustment Against Airport Reference Data

The Pyramid met tower was operational for 34 months, which is relatively long for a wind resource assessment project but brief when considering long-term climatology. This presents a risk of site mischaracterization, which can be high or low as three years of met tower data may capture unusually windy or unusually calm winter season(s), skewing or biasing the results. At Pyramid, the measured and adjusted mean annual wind speed of 6.39 m/s at the 60-meter level (refer to Table 5) is 8% lower than the 6.95 m/s mean wind speed at Pyramid at the 60-meter level predicted by AWS Truepower Windnavigator wind modeling software, which raises a question of possible data skew or bias.[7]

[7] See Table 4 on page 30 of the Unalaska Wind Assessment Phase II project report

To assess data skew, Pyramid met tower data was adjusted by comparison to nearby Dutch Harbor Airport, located 5.6 km (3.5 miles) north-northeast of the met tower. Automated airport weather station data from January 1988 to July 2021 was obtained to provide 33.5 years of comparative wind speed data. With reference to Figure 8, the 33 complete months of Pyramid overlap – November 2018 to July 2021 – demonstrates that Dutch Harbor Airport had lower than average wind speeds from start of the Pyramid met tower project through October 2020. Beginning in November 2020, airport wind speeds were generally higher than their long term (33.5-year) average.

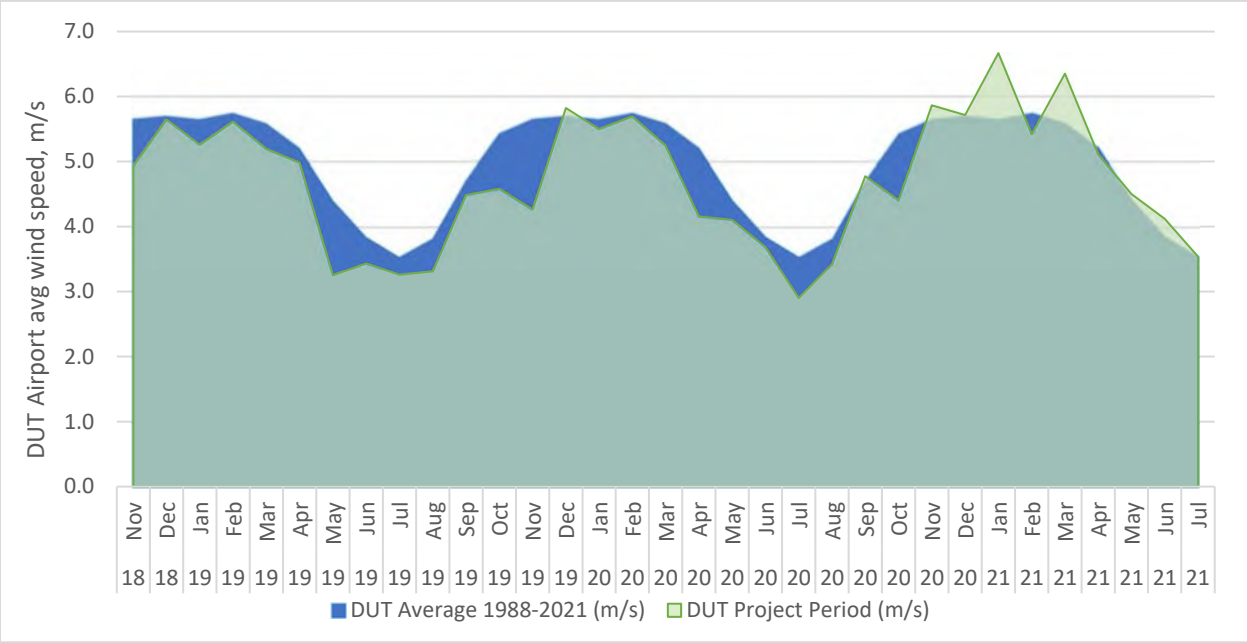


Figure 8: Dutch Harbor Airport wind speed comparison, Pyramid test period vs. 33.5-year average

The implication of lower-than-average wind speeds at the airport during the Pyramid study period is that mean wind speeds calculated from the Pyramid data set are likely biased low. An adjustment was made to the Pyramid data to correct that bias. Table 6 combines data from Table 5 and Figure 8 to adjust the 60-meter level combined anemometer against the long-term average. This yields an 8% increase in mean wind speed, from 6.39 m/s to 6.84 m/s, which is 98.4% of the 6.95 m/s AWS Truepower Windnavigator-predicted wind speed at the site.

Table 6: Pyramid 60 m level wind speed adjustment to Dutch Harbor Airport

Month	Pyramid 60 m cmb Speed (m/s)	Wind Speed Correction (%)	60 m Adjusted Wind Speed (m/s)
Jan	7.45	98%	7.32
Feb	8.05	103%	8.30
Mar	7.63	101%	7.68
Apr	5.92	111%	6.55
May	5.01	114%	5.69

Month	Pyramid 60 m cmb Speed (m/s)	Wind Speed Correction (%)	60 m Adjusted Wind Speed (m/s)
Jun	4.96	103%	5.13
Jul	5.31	110%	5.85
Aug	5.41	114%	6.14
Sep	6.61	102%	6.73
Oct	6.35	121%	7.68
Nov	6.83	114%	7.82
Dec	7.29	99%	7.25
Annual	6.39	108%	6.84

Adjusting met tower data to a long-term average has important implications for wind turbine energy production potential as the power of the wind is a function of the velocity cubed, as noted in Equation 2.

Equation 2: Wind power density equation (P=power, A= rotor swept area, ρ=air density, V=wind speed; units Watts/m^2)

$$\frac{P}{A} = \frac{1}{2} * \rho * V^3$$

So, although the long-term average predicted wind speed of 6.84 m/s is 7% higher than the 6.39 m/s measured win speed at Pyramid during the study period, the cubic relationship of wind speed vs. power (or energy) yields a 23% higher power density (6.84^3 divided by 6.39^3). This adjustment boosts the wind power class of the Pyramid site from Class 4 (good) to low Class 5 (excellent).

Pyramid Wind Direction

The prevailing wind directions at Pyramid are broadly northerly, southeasterly, and southwesterly, with southeasterly and southwesterly winds strongest (see Figure 9). The represents winds flowing across Unalaska Bay from the north, Pyramind Valley from the southeast, and Shaishnikof Creek and Captains Bay from the southwest. The practical interpretation of Figure 9 is that power-generating winds are generally southerly and northerly. Hence, for the most part, Pyramid's winds are bimodal, which is advantageous in that a multi-turbine array layout can be relatively easily designed to minimize rotor wake interference.

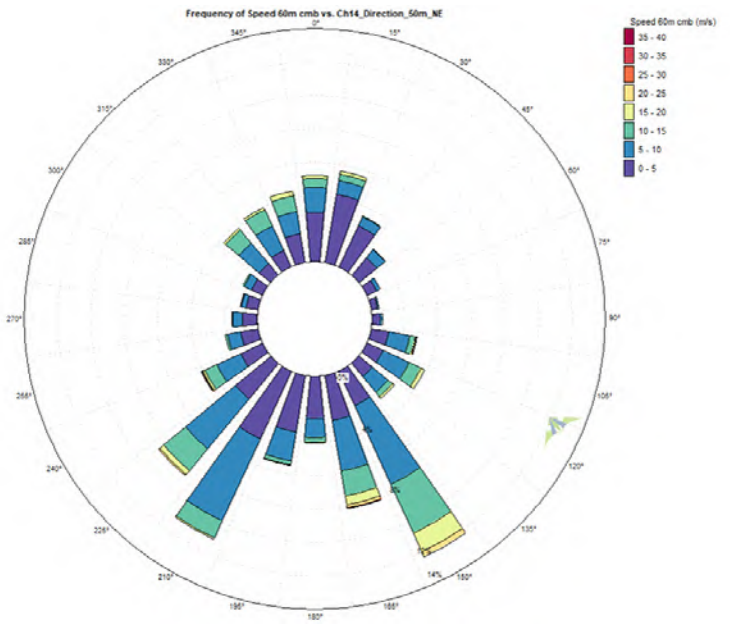


Figure 9: Pyramid wind energy rose, 50-meter level combined anemometers and 50-meter wind vane

Pyramid Vertical Wind Flow

A RM Young propeller vane anemometer was installed at the 55-meter (180 ft.) level to enable calculation of wind flow angle, an important engineering consideration with wind turbines that affects main rotor shaft bearing loading. Relatively high wind up-flow angle from westerly winds (see Figure 10) may pose some concern and should be discussed in detail with wind turbine manufacturers.

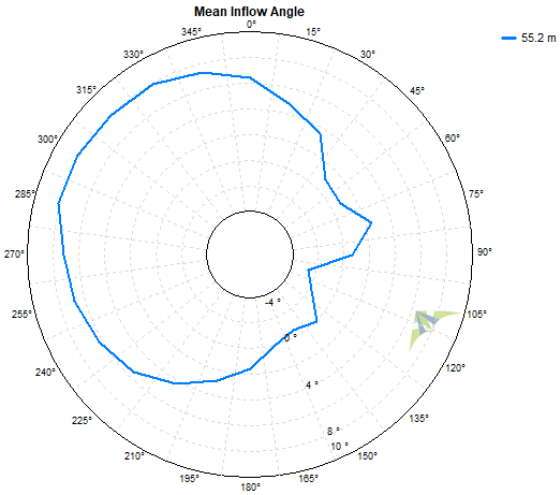


Figure 10: Pyramid vertical wind flow rose, combined 60-meter anemometers

Pyramid Wind Distribution, Weibull

The probability distribution function, or histogram, of the Pyramid met tower 60-meter combined anemometer wind speed data indicates a shape curve dominated by low-to-moderate wind speeds with a somewhat high percentage of calm winds (see Figure 11).

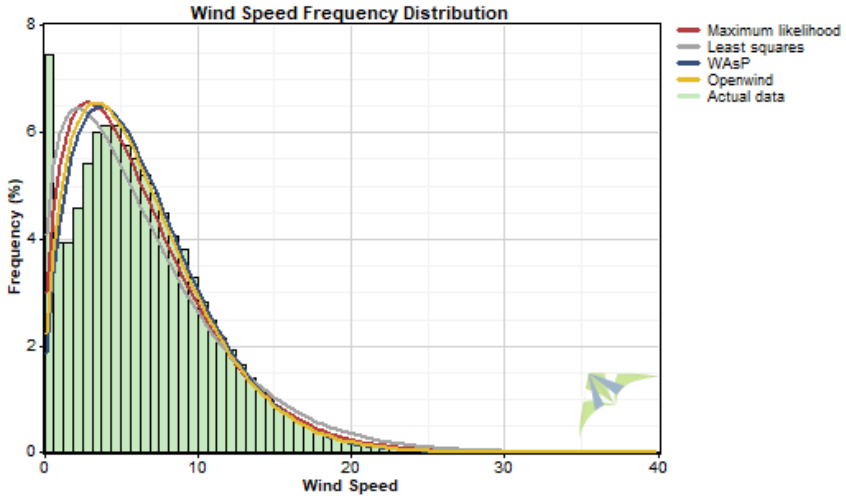


Figure 11: Pyramid wind speed probability distribution histogram

With reference to Figure 11, Table 7 includes the statistical information of the fitted shape curves for the measured wind speed distribution. Note that a Weibull k for all four estimation models is lower than 2.0; the latter which represents a "normal" shape curve in the wind power industry known as the Rayleigh curve. This demonstrates a predominance of lower wind speeds in the data set.

Table 7: Pyramid wind speed distribution table

Algorithm	Weibull k (-)	Weibull A (m/s)	Mean (m/s)	Proportion Above 6.421 m/s	Power Density (W/m2)	R Squared (-)
Maximum likelihood	1.40	7.00	6.38	0.413	481	0.902
Least squares	1.28	7.14	6.62	0.419	627	0.906
WAsP	1.55	7.24	6.52	0.438	440	0.893
Openwind	1.49	7.09	6.41	0.424	440	0.897
Actual data			6.41	0.438	440	

Pyramid Wind Shear and Roughness

Wind shear is defined as the change in wind velocity (wind and direction vector) with height above ground level. Low wind shear is desirable as the marginal increase in power output at higher heights is minimal, leading to the possibility of lower height wind turbine towers to significantly reduce project costs.

Pyramid wind shear is low by wind industry standards with a mean calculated power law exponent of 0.100 from the combined anemometers and all wind direction sectors (see Figure 12). A view by wind direction though (see Figure 13) shows higher wind shear with prevailing southeasterly and southwesterly winds. The calculated surface roughness of 0.00022 meters is equivlant to that of a very smooth surface, such as a calm sea.

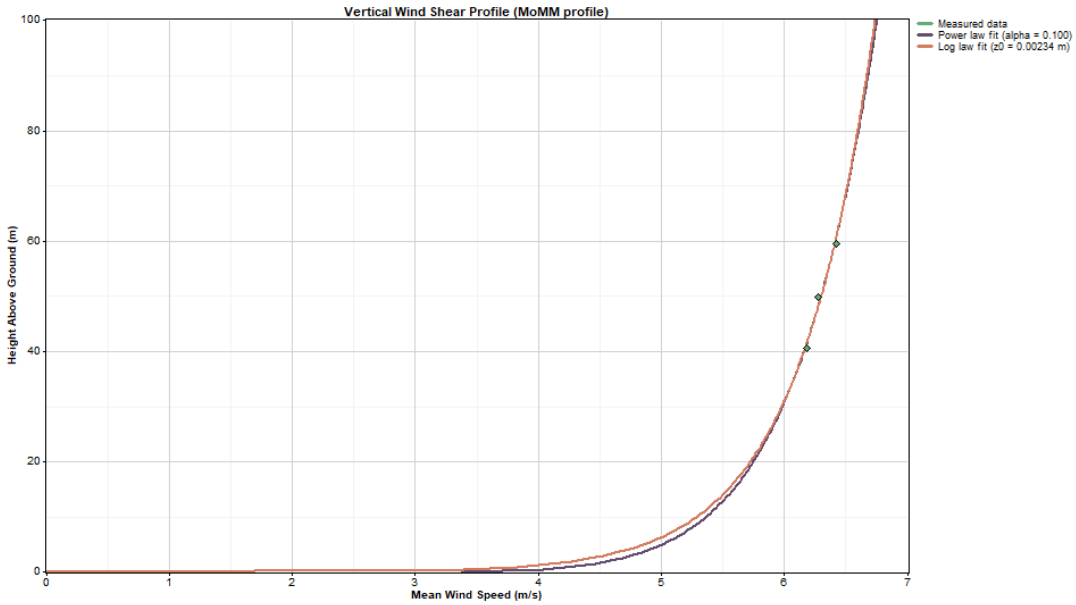


Figure 12: Pyramid vertical wind shear profile (calculated 0.100 power law exponent)

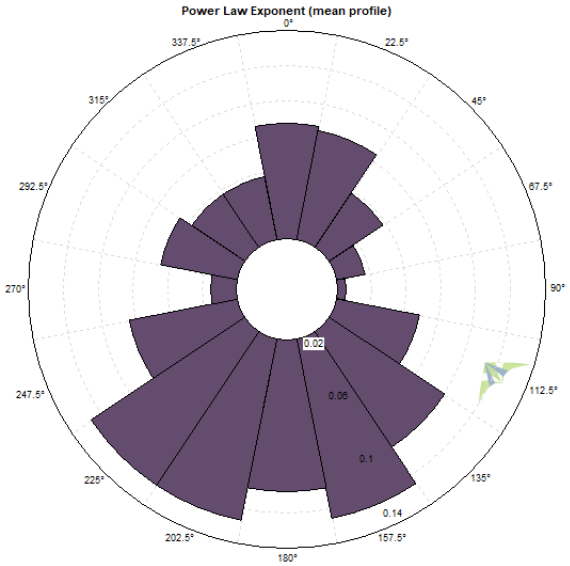


Figure 13: Pyramid vertical wind shear rose (0.14 power law exponent, outer ring)

Pyramid Extreme Wind Behavior

Extreme wind is described by Vref, or reference velocity, in a 50-year return period (see Table 21 in Appendix A) as defined by IEC 61400-1, 3rd edition (2005) standards. Reference velocity is the highest 10-minute average wind speed predicted to occur once every 50 years. Because very few wind studies for wind power development approach 50 years duration, a Gumbel distribution analysis estimates the 50-year extreme wind probability using collected met tower data.[8] Three estimation methods for wind

[8] In probability theory and statistics, the Gumbel distribution models the distribution of the maximum or minimum of several samples of various distributions; see https://en.wikipedia.org/wiki/Gumbel_distribution for further explanation.

power are commonly used: periodic maxima, method of independent storms, and European Wind Turbine Standards II, with results shown in Table 8. Note that one very strong wind event, which suprisingly occurred during the summer, on August 31, 2020, significantly influenced Pyramid's 50-year extreme wind probability.

Periodic Maxima

The first method to estimate Vref is a Gumbel distribution analysis modified for monthly maximum winds versus annual maximum winds, which are typically used for this type calculation. Thirty-four months of wind data are acceptable for this analysis, using the 60-meter combined anemometer. With filtered and preconditioned (by Weibull k) data, the predicted Vref by this method is 42.6 m/s. With reference to Appendix A, this result just exceeds IEC Class II criteria, the middle-defined category of extreme wind probability.

Method of Independent Storms

A second extreme wind estimation method, method of independent storms, yields a Vref estimate of 47.6 m/s, which is significantly higher than that predicted by the periodic maxima method and would classify the site as IEC 61400-1 Class I.

European Wind Turbine Standards II (EWTS II)

The third estimation technique, EWTS II, ignores measured peak wind speeds and calculates Vref from the Weibull k factor. There are three variants of this method – Exact, Gumbel, and Davenport – which yield a Vref between 41.3 and 44.6 m/s at Pyramid. These results are like that of the periodic maxima method and classify the site as IEC Class I or II.

Table 8: Extreme Wind Vref (50-year return period), Pyramid 60m combined anemometer

Method	Vref (50 yr) (m/s)
Periodic Maxima	42.6
Method of Independent Storms	47.6
EWTS II (Exact)	41.3
EWTS II (Gumbel)	41.8
EWTS II (Davenport)	44.6

Turbulence

Turbulence at the Pyramid met tower site is moderate with a mean turbulence intensity of 0.12 at 15 m/s (refer to Appendix A for further explanation). Considering the reputation of the Aleutian Islands for extremely rough and turbulent wind conditions, this is a desirable outcome. Note in Figure 14 moderate turbulence for wind speeds up to approximately 24 m/s, at which point turbulence increases, though curiously, decreases at about 27 m/s. This is somewhat a moot point however as most wind turbines are designed to secure operating at 25 m/s sustained wind speed.

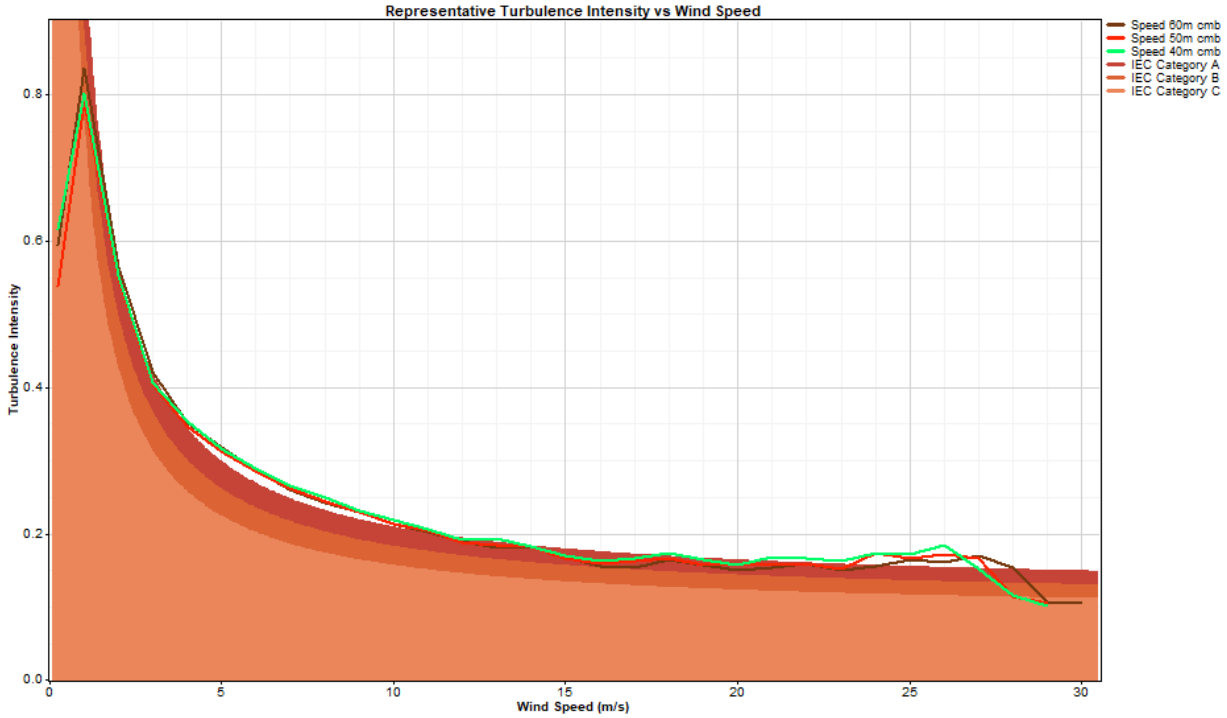


Figure 14: Pyramid turbulence intensity vs. wind speed

There is, however, a caveat as turbulence with easterly winds (coming from Pyramid Mtn) and westerly winds (coming from the ridgeline north of Captains Bay) is very high (see Figure 15), possibly presenting an operational limitation. Note however in Figure 9 that easterly and westerly winds at the Pyramid site are uncommon and hence the operational limitation would be minimal.

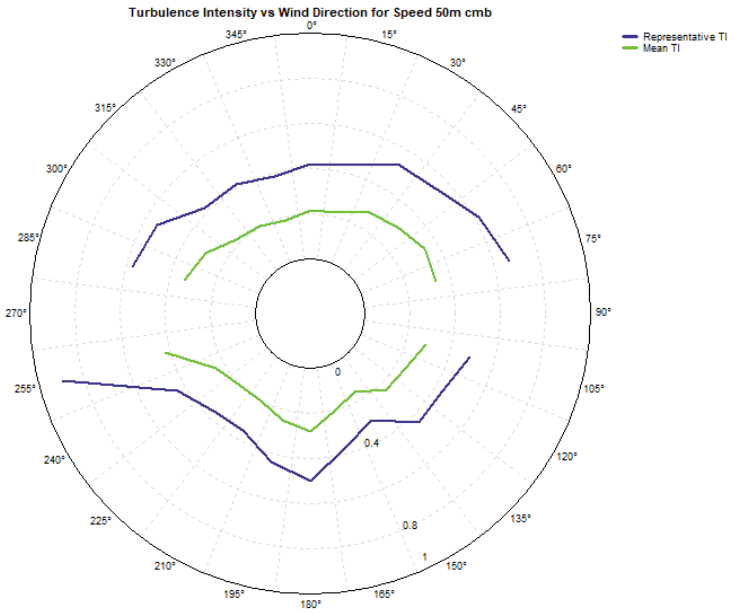


Figure 15: Pyramid turbulence intensity by wind direction

For IEC classification, a category is assigned for turbulence intensity at 15 m/s. With winds from all sectors, Table 9 indicates moderate turbulence at the three wind speed measurement heights. Note again however with reference to Figure 15 that turbulence from easterly and westerly winds is high.

Table 9: Pyramid turbulence intensity table and IEC categories

		15 m/s Speed Bin				
				Standard	Represen-	IEC 3 ed.
	Height	Data	Mean	Deviation	tative	Turbulence
Wind Speed Sensor	(m)	Points	TI	of TI	TI	Category
Speed 60m cmb	59.5	73,431	0.120	0.038	0.168	C
Speed 50m cmb	50.0	73,431	0.122	0.036	0.168	B
Speed 40m cmb	40.7	73,431	0.126	0.034	0.170	B

Pyramid IEC Classification

As noted in previous sections and discussed in greater detail in Appendix A, for the purposes of wind turbine design and selection, IEC 61400-1, 3rd edition (2005) standards classify a site by its extreme wind and turbulence behavior. The Pyramid extreme wind probability indicates a high Class II environment and calculated TI demonstrates Category B turbulence, hence a Class IIB site classification.

Hog Island

The August 2017 *Request for Proposals, Analysis of the City of Unalaska Wind Power Development and Integration Assessment Project Phases II to IV* that initiated the wind resource study envisioned up to five primary sites to be instrumented with met towers. Unalaska's topography is complex and wind power site options are limited, however, as discussed in the Phase II report. Initially, only lower Pyramid Valley was considered a primary site and recommended for a large, 60-meter met tower. The 34-meter Icy Creek Reservoir met tower was intended as an auxiliary to the larger Pyramid met tower to both assess upper valley winds and to serve as a reference point for wind flow modeling. The 10-meter Bunker Hill met tower was installed as a higher elevation reference to validate climatology data derived from Cold Bay upper air monitoring data.

With that, a second primary site was desired as an alternative should the Lower Pyramid Valley wind resource prove insufficient or unsuitable. With due consideration of the options, it was felt that only Hog Island readily possessed the development characteristics necessary to host several wind turbines and hence was added to the project. Unfortunately, meso-scale wind resource models such as UL's AWS Truepower Windnavigator (discussed in the Phase II report) do not include Hog Island and hence its anticipated wind resource was uncertain. It was hoped that Hog Island's relative distance from high elevation, shadowing terrain would prove beneficial, but there was concern that its low elevation may prove disadvantageous with respect to wind speeds.

Figure 16: Hog Island met tower (D. Vaught photo)

Hog Island is only accessible by boat or helicopter and has no existing power distribution. Steep topography on the northern half of Hog Island and instrument approach area boundaries for Dutch Harbor Airport Runzway 13 likely restrict future wind power development to only the southern half of the island. But according to City of Unalaska Public Works personnel, Hog Island may be less expensive to develop than the Ptarmigan Road site area in Iliuliuk Valley (refer to the Phase II report for site information and discussion). This reflects the nature of power distribution supplying Iliuliuk Valley compared to a relatively straight-forward requirement to route approximately 1.25 miles of power distribution across Unalaska Bay from an electrical substation near the airport.

Hog Island Site and Met Tower Information

A 60-meter (197 ft.) NRG Systems, Inc. tubular, guyed met tower was installed in mid-August 2019 on Ounalashka Corporation land on Hog Island and was decommissioned in April 2021 (see Figure 16).[9] Refer to Table 10 for summary information of the met tower and data collected from it.

Table 10: Hog Island met tower summary information

Data dates	8/17/2019 to 4/22/2021 (20 months)
Datalogger information	NRG Symphonie PRO, 26 channel, site no. 3550
Site coordinates	53.9029 North, 166.5755 West (WGS 84 datum)
Site elevation	30 meters (98 ft.)
Wind speed, mean annual, 60 m level	6.0 m/s
Wind power density, mean annual, 60 m	293 W/m^2
Wind power class	3 (fair) of 7 defined classifications
Maximum 10-min. avg wind speed	32.8 m/s
Maximum 3-sec. gust wind speed	40.7 m/s (91 mph)
Wind shear power law exponent	0.225

[9] Met tower installation accomplished by V3 Energy LLC with contracted assistance from Bering Straits Development Company and Solstice Alaska Consulting, and with the generous material and personnel support of City of Unalaska Department of Public Works.

Calm wind frequency (winds < 4 m/s)	34%
Extreme wind probability (50-year period)	Not calculated
Turbulence intensity, 60 m level	0.131
IEC 61400-1 3rd ed. classification	Not determined

Figure 17: Hog Island met tower location, view north; Google Earth image

Prior to installation of the met tower, a Federal Aviation Administration (FAA) obstruction evaluation was requested. FAA issued Aeronautical Study No. (ASN) 2018-WTW-5353-OE in September 2018 with a determination of no hazard to air navigation. Obstruction lighting was required in addition to alternating bands of aviation orange and white paint on the met tower and orange high-visibility marker balls near the top of the outer guy wires to improve visibility. Obstruction lighting was accomplished with a strobe light kit from NRG Systems, Inc. and a 24 Volt custom designed and constructed battery power system with a 3 kW wind turbine and 1,000 kW solar power capacity supplied by APRS World of Minnesota.

The Hog Island met tower was equipped with two anemometers each at 60 meters, 50 meters and 40 meters; wind vanes at 60 meters and 50 meters; and temperature, relative humidity, and barometric pressure sensors at the tower base (see Table 11). Refer to Appendix C for detailed sensor technical information and to Appendix F for documentation photographs of the met tower installation.

Table 11: Hog Island met tower sensors

Ch	Sensor Type	Model	Name	Height (m)	Dir. (°T)
1	Anemometer	40C	60m E	59.7	098
2	Anemometer	40C	60m W	59.3	269
3	Anemometer	40C	50m E	50.3	098
4	Anemometer	40C	50m W	49.8	269
5	Anemometer	40C	40m E	40.9	098
6	Anemometer	40C	40m W	40.4	269
13	Vane	200M	60m	57.4	148
14	Vane	200M	50m	47.7	220
16	Temp	T60	Temp	3.0	000
17	Barom. Press.	BP20	BP	2.0	270
18	Rel. Humidity	RH5X	RH	2.0	270

Hog Island Data Quality Control

As with data collected from the Pyramid met tower, Hog Island met tower data was manually filtered to remove compromised records. This included startup sequencing, isolated periods of power supply problems, icing events, tower shading, and poorly functioning sensors. Unlike the Pyramid met tower though where all sensors performed very well until later in the project, several Hog Island anemometers experienced "dragging" problems (see Pyramid data quality control discussion) and by May 2020 both wind vanes failed (see Figure 18). NRG Systems anemometers and wind vanes are exceptionally reliable, and this rate of failure is unprecedented. A possible explanation is the exceptionally high population of bald eagles in Unalaska, which is a distinguishing aspect of the community compared to scores of locations throughout Alaska with met towers over the past 20 years. During met tower installation and subsequent site visits, bald eagles were often observed perched on the sensor boom arms. It is probable that eagles occasionally attempted to land on the sensors themselves, damaging them.

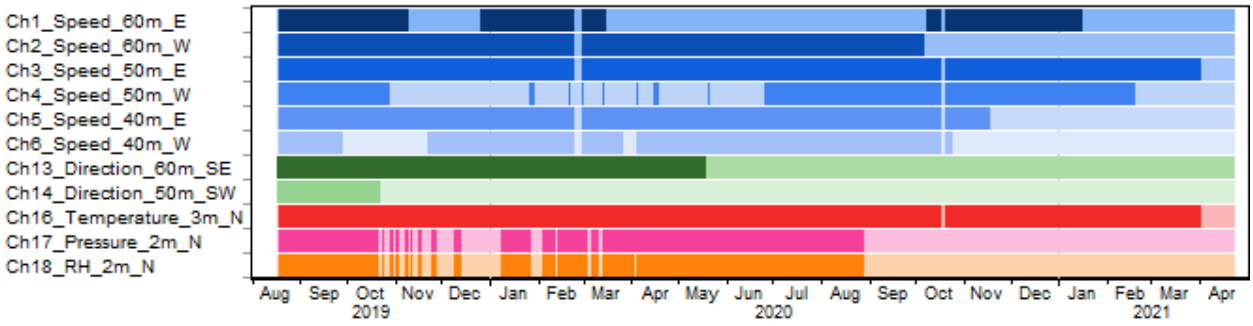


Figure 18: Hog Island met tower data recovery graphic (tower shading filtering excluded)

Hog Island Environmental Measurements

Environmental conditions at Hog Island do not differ substantially from those at Pyramid Valley, hence, one may reference the previous section for temperature, humidity, and density information. Unlike Pyramid though, Hog Island was equipped with a barometric pressure sensor (see Figure 19). The intent of this sensor was to record an extreme low-pressure event (960 mb or lower) to document possible accompanying extreme winds. Data recovery problems with the barometric pressure sensor

compromised this analysis, but a trendline demonstrated decreasing wind gust speeds with higher atmospheric pressure (see Figure 20). Notably, highest wind gusts occurred with southwesterly to westerly winds during low pressure weather events.

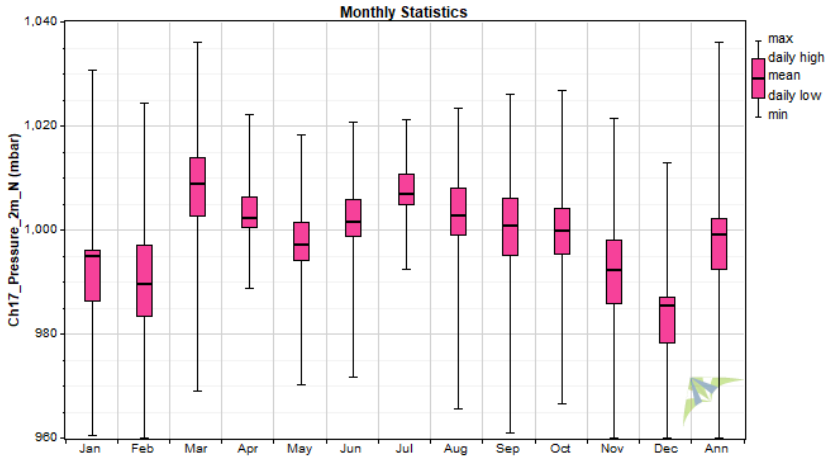


Figure 19: Hog Island barometric pressure boxplot

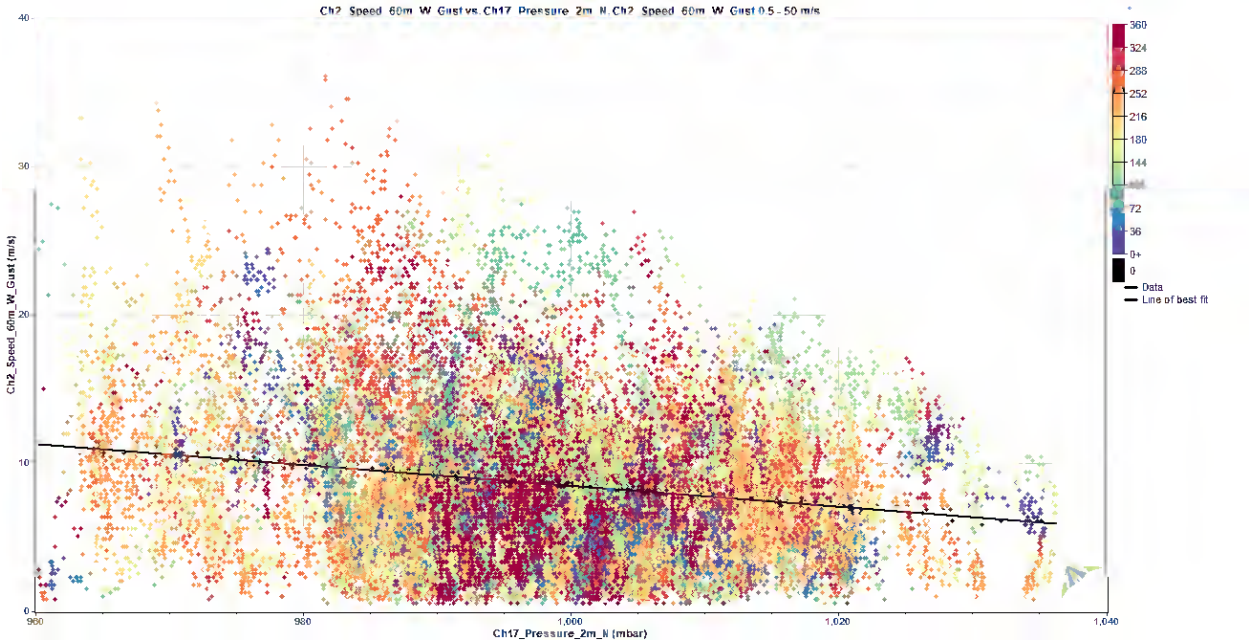


Figure 20: Scatterplot of Hog Island barometric pressure vs. 60 m level wind gust (color code indicates wind direction)

Hog Island Wind Speed and Anemometer Combination

For the three anemometers with higher data recovery rates (60m W, 50m E, and 40m E), mean wind speeds were low (see Table 12) at between approximately 5.1 and 5.9 m/s. Because comparison with Pyramid met tower (see succeeding discussion) demonstrates that Pyramid is the preferred wind power site of the two locations, wind speed adjustment for turbulence as employed with Pyramid data was not accomplished.

Table 12: Hog Island wind speeds, filtered

Variable	Ch1_Speed _60m_E	Ch2_Speed _60m_W	Ch3_Speed _50m_E	Ch4_Speed _50m_W	Ch5_Speed _40m_E	Ch6_Speed _40m_W
Mean wind speed (m/s)	6.87	5.80	5.91	6.19	5.12	4.96
Mean wind speed (mph)	15.4	13.0	13.2	13.8	11.5	11.1
Max 10-min wind speed (m/s)	26.3	32.2	31.7	30.8	31.7	30.2
Max wind speed (mph)	58.8	72.0	70.9	69.0	70.8	67.6
Max gust wind speed (m/s)	43.8	44.0	43.5	43.5	43.4	43.6
Max gust wind speed (mph)	98.0	98.4	97.3	97.3	97.1	97.5
Wind power density (W/m²)	495	319	336	410	264	247
Frequency of calms (%)	28.9	36.7	33.5	36.2	44.2	45.9

Combined Anemometers

Table 12 shows wind speed data with necessary filtering, but like Pyramid, long periods of met tower operation with asymmetric data collection yielded divergent wind speed data for paired anemometers. The two primary options can be used to correct this: synthesize missing data or mathematically combine the anemometers. Like with Pyramid, only anemometer combination was used to create a more representative data set (see Table 13).

Table 13: Hog Island combined anemometer data

Combined	Height	First Anemometer		Second Anemometer		Combined Sensor	
Sensor	(m)	DRR (%)	Mean (m/s	DRR (%)	Mean (m/s)	DRR (%)	Mean (m/s)
Speed 60m cmb	59.5	40.7	6.85	65.6	5.81	83.2	6.11
Speed 50m cmb	50.1	94.4	6.19	50.5	6.11	95.9	6.15
Speed 40m cmb	40.7	72.5	5.14	57.9	4.96	73.1	5.11

Seasonal and Diurnal Variation

Hog Island's monthly wind speed profile (see Figure 21), like at Pyramid, demonstrates a pronounced seasonal variation of wind speeds with higher winter winds and lower summer winds. Figure 22 demonstrates a diurnal wind speed variation on Hog Island like that at Pyramid, but more pronounced with a greater difference between daytime and nighttime winds.

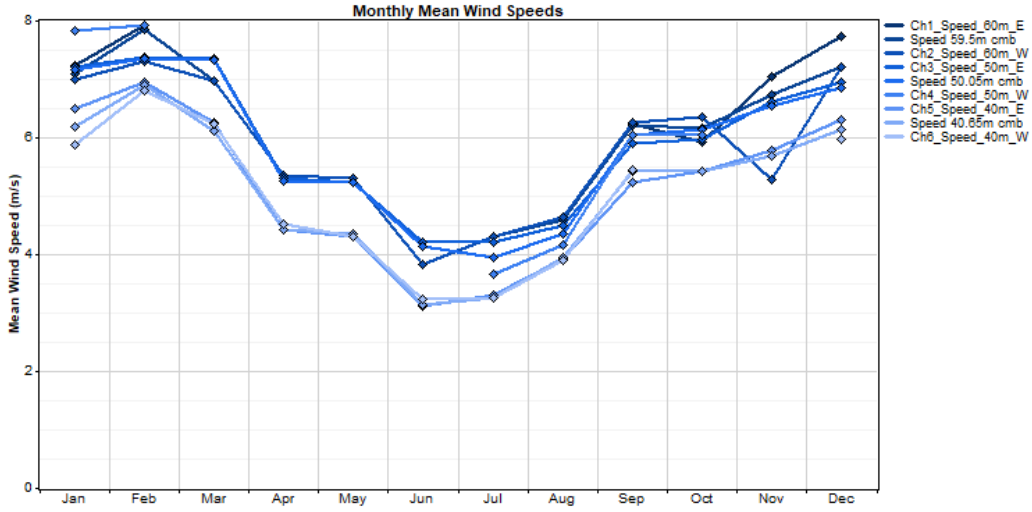


Figure 21: Hog Island monthly wind speeds, combined anemometers only

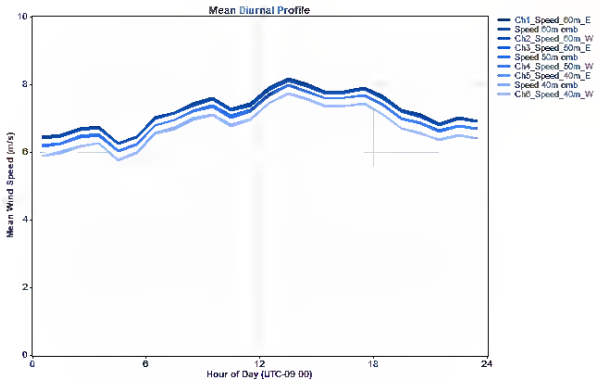


Figure 22: Hog Island diurnal wind speed profile

Hog Island Wind Distribution

The probability distribution function of the Hog Island met tower 60 meter combined anemometer wind speed data indicates a shape curve dominated by lower-to-moderate wind speeds (see Figure 23), but interestingly, with a lower percentage of calm winds (0 to 0.5 m/s) than measured at Pyramid (refer to Figure 11).

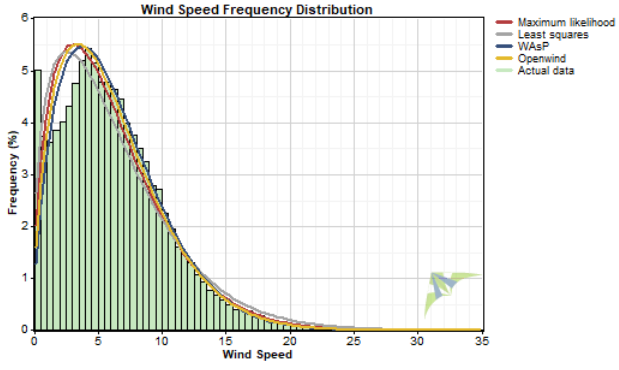


Figure 23: Hog Island wind speed probability distribution histogram

Hog Island Wind Shear and Roughness

Hog Island met tower site wind shear is moderate by wind industry standards with a mean power law exponent of 0.225 from all wind direction sectors (combined anemometers, 2019 only, see Figure 24). But, with reference to Figure 25, wind shear is extremely high with northwesterly to northerly winds. This reflects the topography of the met tower site area where a high hill lies to the north. This is an unavoidable constraint of Hog Island. The high terrain cannot be developed due to conflict with the Unalaska Airport Runway 13 instrument approach area, and the developable southwestern portion of the island is lower elevation and partially shadowed by higher terrain to the north.

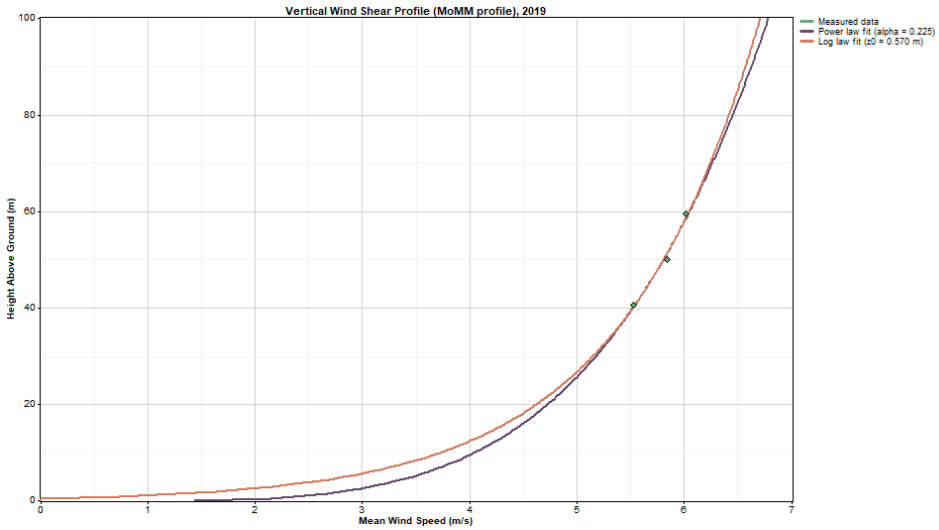


Figure 24: Hog Island vertical wind shear profile (calculated 0.225 power law exponent)

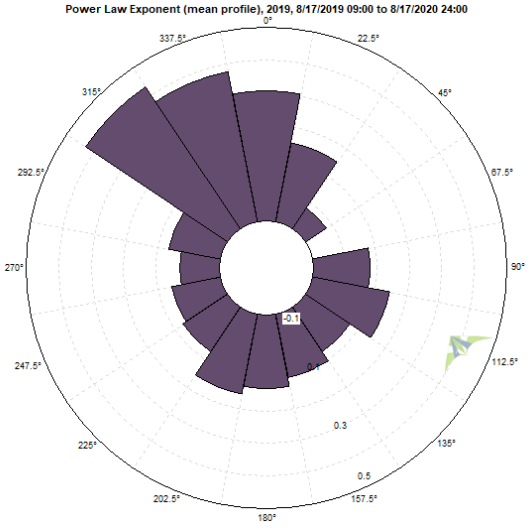


Figure 25: Hog Island vertical wind shear rose (0.50 power law exponent, outer ring)

Hog Island Turbulence

Turbulence at the Hog Island met tower site is moderate with a mean turbulence intensity (TI) of 0.13 at 15 m/s (refer to Appendix A for an explanation of turbulence calculation).

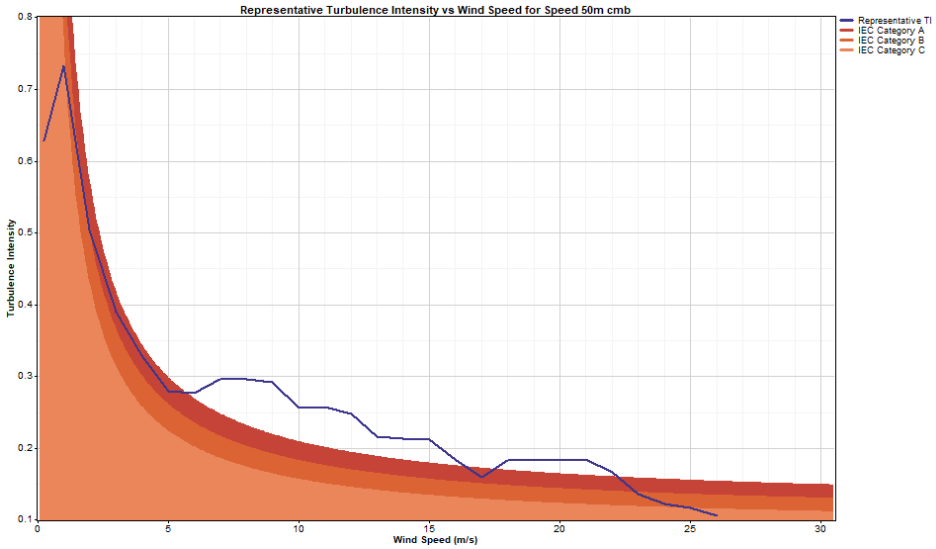


Figure 26: Hog Island turbulence intensity vs. wind speed

Hog Island Wind Direction

The prevailing wind directions at Hog Island are northeasterly and southeasterly to southwesterly, with the latter winds strongest (refer to Figure 27). This is largely consistent with wind directions measured at Pyramid.

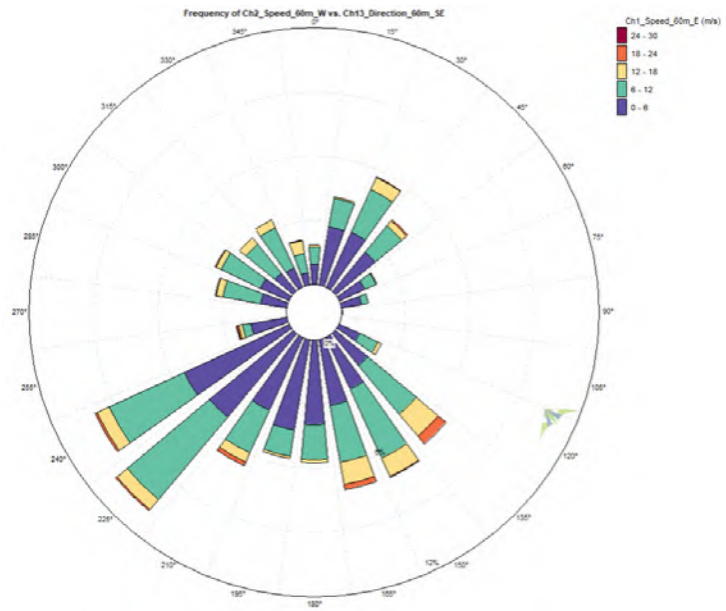


Figure 27: Hog Island wind energy rose, 60-meter west anemometer and 60-meter wind vane

Hog Island and Pyramid Comparison

A seminal objective of Unalaska's wind study was simultaneous collection of wind data from two or more primary sites. Primary sites were only lower Pyramid Valley and Hog Island, both equipped with 60-meter met towers. The 20 months of Hog Island met tower data overlapped completely with Pyramid data, which preceded and succeeded it.

With reference to Figure 28, for comparable anemometers (50-meter east-facing) the monthly mean wind speeds measured at Pyramid were consistently higher, or at least equivalent to, those measured at Hog Island. All other considerations aside, this is the definitive comparative assessment of the two site locations. For Hog Island to be the preferred location for City of Unalaska wind power development, it must be considerably windier than Pyramid, but clearly that was not observed.

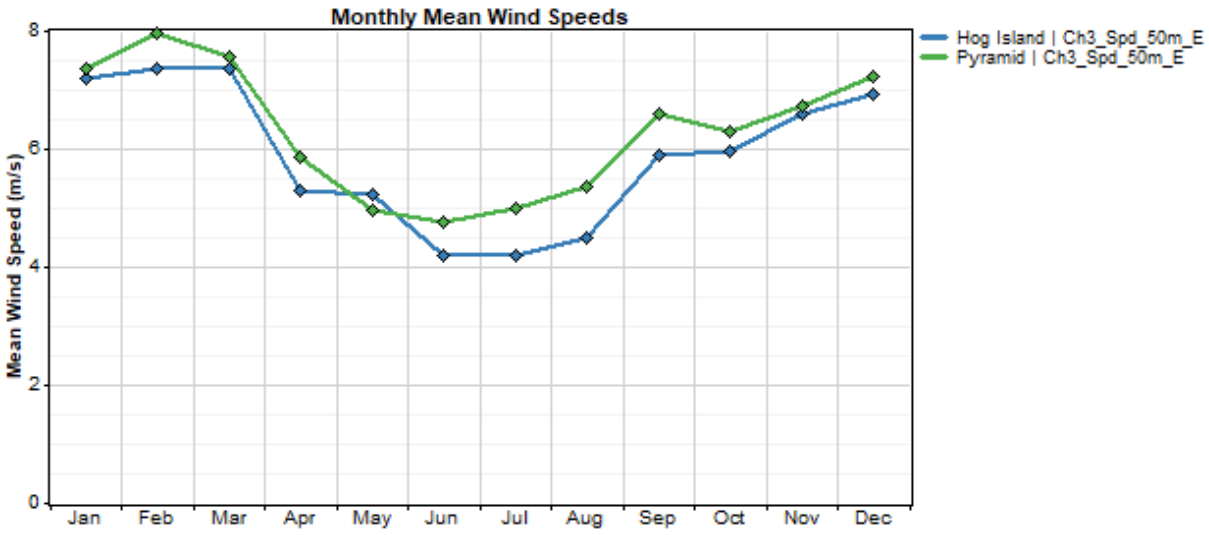


Figure 28: Hog Island vs. Pyramid wind speed comparison, 50 m anemometers

Icy Creek Reservoir (upper Pyramid Valley)

Upper Pyramid Valley, for the purposes of this analysis, comprises the area between Icy Creek Reservoir and Icy Lake at the top of the valley. Although of secondary interest given the wind power development advantages of the lower valley, upper valley was thought potentially promising should the lower valley wind resource prove less robust than desired and/or wind power development in the lower valley not be feasible for other reasons.

Figure 29: Icy Creek Reservoir 34-meter met tower (D. Vaught photo)

Given the lower likelihood of wind power development in the upper valley compared to lower valley, a 34-meter met tower was installed at a well-exposed location immediately west of Icy Creek Reservoir (see Figure 29). Besides providing wind data to lend insight into the upper valley wind resource, data from the Icy Creek Reservoir met tower was desired to serve as a reference point for a wind flow model using Pyramid met tower as the model's data set (see Figure 30).

Icy Creek Reservoir Site and Met Tower Information

The Icy Creek Reservoir met tower was installed in mid-October 2018 at the same time as the 60-meter Pyramid and 10-meter Bunker Hill met towers.[10] The tower was decommissioned and removed from the site by Department of Public Works personnel in October 2019 following failure of an outer guy wire that resulted in an unrepairable "crack-over" of the tower's top sections. Refer to Table 14 for summary information of the met tower and data collected from it.

Table 14: Icy Creek Reservoir met tower summary information

Data dates	10/16/2018 to 10/28/2019 (12 months)
Datalogger information	NRG Symphonie PRO, 16 channel, site no. 3551
Site coordinates	53.82946 North, 166.55130 West (WGS 84 datum)
Site elevation	168 meters (551 ft.)
Wind speed, mean annual, 34 m	5.46 m/s (12.2 mph)
Wind power density, mean annual, 34 m	318 W/m^2
Wind power class	3 (fair), of 7 defined classifications (possibly Class 4 with long-term climatology adjustment; see Pyramid met tower discussion)
Maximum 10-min. avg wind speed	28.9 m/s
Maximum 2-sec. gust wind speed	40.7 m/s (91.0 mph)
Wind shear power law exponent	0.0717 (very low; 0.14 considered nominal)
Calm wind frequency (winds < 4 m/s)	Approx. 44%
Extreme wind probability (50-year period)	Not calculated
Turbulence intensity, 34 m	0.122 (moderately high)
IEC 61400-1 3rd ed. classification	Not determined

[10] Met tower installation accomplished by V3 Energy LLC with contracted assistance from Bering Straits Development Company and Solstice Alaska Consulting.

Figure 30: Icy Creek Reservoir met tower location, view north, Google Earth image

Prior to installation of the met tower, a Federal Aviation Administration (FAA) obstruction evaluation was requested. FAA issued Aeronautical Study No. (ASN) 2018-WTW-5349-OE in July 2018 with a determination of no hazard to air navigation. Obstruction lighting was not required although FAA requested alternating bands of aviation orange and white paint on the met tower and orange high-visibility marker balls be attached near the top of the outer guy wires to improve visibility of the tower for aviators. Both requirements were accomplished.

The Icy Creek Reservoir met tower was equipped with two anemometers at 34 meters and one anemometer at 20 meters; one wind vane each 33 meters; and temperature and relative humidity sensors at the tower base (refer to Table 15). Refer to Appendix D for detailed sensor technical information and to Appendix F for documentation photographs of the met tower installation.

Table 15: Icy Creek Reservoir met tower sensors

Ch	Sensor Type	Model	Name	Height (m)	Dir. (°T)
1	Anemometer	40C	34m ESE	34.0	121
2	Anemometer	40C	34m WSW	34.0	262
3	Anemometer	40C	20m ESE	20.5	124
13	Vane	200M	Direction	33.0	281
16	Temp	T60	Temp	2.5	000
17	Rel. Humidity	RH5X	RH	2.0	000

Icy Creek Reservoir Data Quality Control

As with data collected from the Pyramid and Hog Island met towers, Icy Creek Reservoir met tower data was manually filtered to remove compromised records. This included startup sequencing, isolated periods of power supply problems, icing events, tower shading, and poorly functioning sensors. Figure 31 demonstrates mixed results regarding data recovery at Icy Creek. There was some minor data loss due to icing in but also periods of significant anemometer failure, possibly due to damage caused by eagles as discussed with Hog Island.

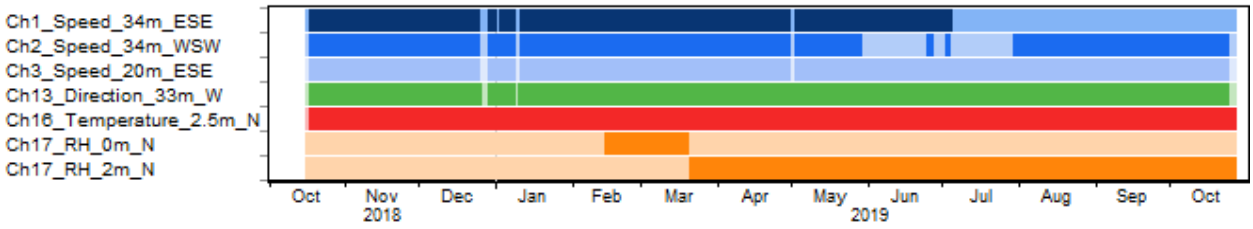


Figure 31: Icy Creek Reservoir met tower data recovery graphic (tower shading filtering not employed)

Icing Data

Considering the cool, wet climate of the Aleutian Islands, significant data loss due to icing was expected, especially at the higher elevation of Icy Creek Reservoir compared to lower Pyramid Valley. This concern proved unfounded however as icing loss was a very minimal 0.9 percent over the one-year data measurement period.

Icy Creek Reservoir Wind Speed and Data Synthesis

Given the data recovery problems with both 34-meter level anemometers, data reconstruction or gap-filling was employed to yield a more accurate dataset for analysis than raw or filtered data alone would provide.

With reference to reconstructed data, mean wind speeds at the 34-meter level were measured at approximately 5.44 m/s with a mean wind power density of 318 Watts/m^2 (see Table 16). This classifies lower Pyramid Valley as a Class 3 (description: fair) wind resource.

Table 16: Icy Creek Reservoir wind speeds with reconstructed (gap-filled) data

Variable	Ch1_Speed_ 34m_ESE	Ch2_Speed_ 34m_WSW	Ch3_Speed_ 20m_ESE
Mean wind speed (m/s)	5.37	5.44	5.18
Mean wind speed (mph)	12.0	12.2	11.6
Max 10-min wind speed (m/s)	28.7	28.9	27.7
Max 10-min wind speed (mph)	64.2	64.6	61.9
Max gust wind speed (m/s)	40.0	40.7	40.6
Max gust wind speed (mph)	89.5	91.0	90.8
Mean power density (W/m^2)	313	318	276
Frequency of calms (%)	44.9	43.9	46.7

Icy Creek Reservoir Wind Direction

The prevailing winds at the Icy Creek Reservoir site were measured as strongly northwesterly and southeasterly, which reflects the confining nature – due to enclosure by high mountains to the east and west – of upper Pyramid valley (see Figure 32).

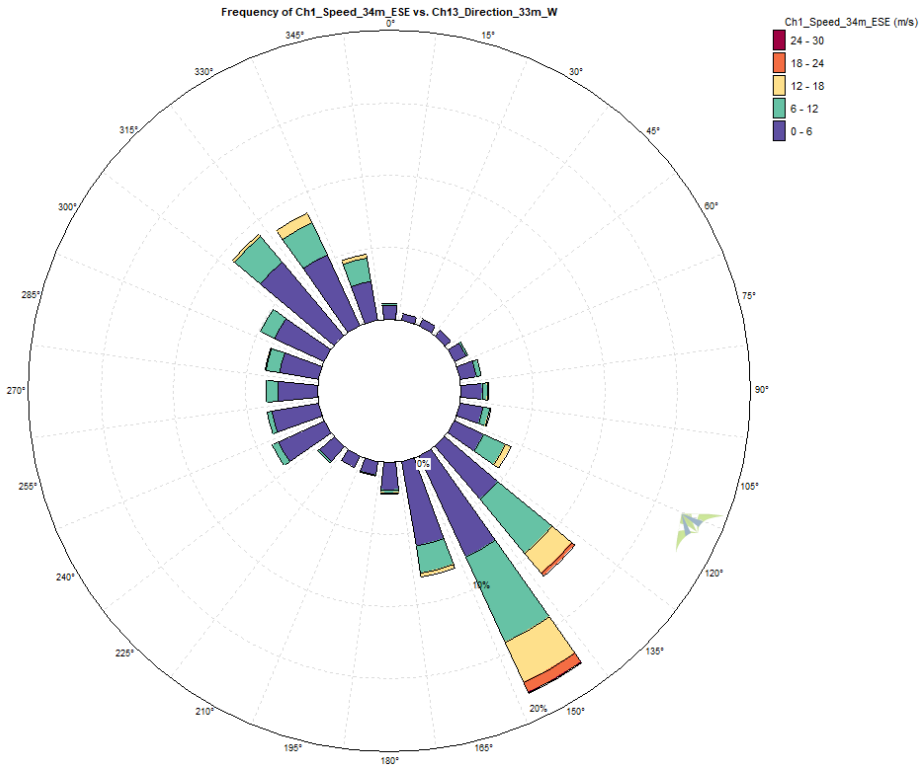


Figure 32: Icy Creek Reservoir wind energy rose

Icy Creek Reservoir and Pyramid Comparison

As noted earlier, one purpose of the Icy Creek Reservoir was to explore the wind potential of upper Pyramid Valley to determine possible suitability as a wind turbine location compared to lower valley. It was recognized during planning that the upper valley is geographically constrained compared to lower valley, which could prove disadvantageous.

With reference to measured wind shear at the Pyramid met tower (see Figure 12), a virtual 34-meter anemometer on the Pyramid tower was synthesized to enable direct comparison with the Icy Creek Reservoir wind speed data. Figure 33 shows the comparative monthly mean wind speeds, with Icy Creek clearly lower for all months except June 2018 and January 2019 when they were equal. As a result, the wind power class of Icy Creek Reservoir is less than at Pyramid (referring to lower Pyramid valley).

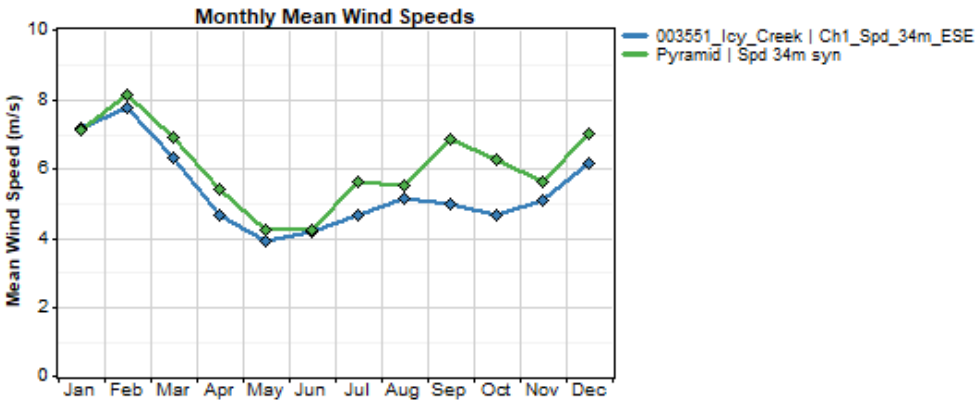


Figure 33: Icy Creek Reservoir vs. Pyramid wind speed comparison, overlap period

Although detailed month-by-month wind speed and wind direction data could provide additional insight, comparing the wind roses (overlap period, Figure 34) of the two sites clearly indicates Pyramid benefits from southwesterly winds along the reach of Captain's Bay while Icy Creek Reservoir does not due to high blocking terrain that comprises the eastern boundary of the upper valley.

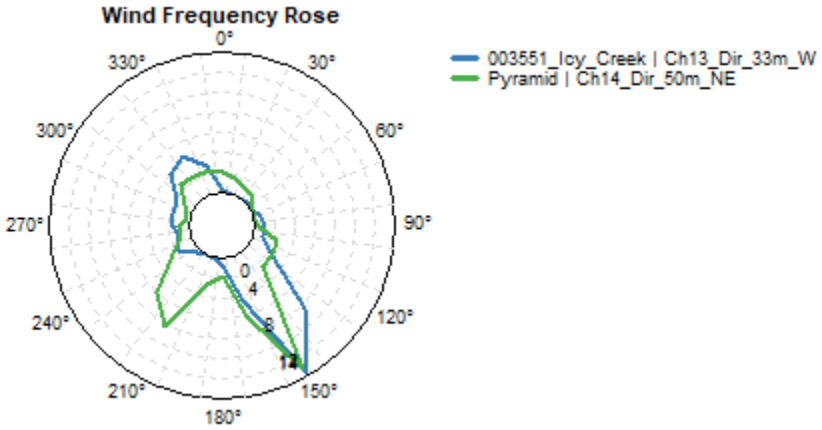


Figure 34: Icy Creek Reservoir vs. Pyramid wind direction comparison

Bunker Hill (aka Little South America)

Bunker Hill (also known locally as Little South America) was identified in the Phase II report as a suitable location to measure the wind resource – primarily wind directions – to validate meso-scale wind modeling of Cold Bay upper air data. There were two candidate sites – Bunker Hill and Ballyhoo (Amaknak Island) – for this purpose. In some respects, Ballyhoo may have been preferable to Bunker Hill as it is twice the elevation and hence better exposed, but the location of Bunker Hill between the main prospective met tower sites – Lower Pyramid Valley and Hog Island – made it the more suitable choice.

A short, 10-meter met tower was chosen for Bunker Hill as the location, though presumably with a comparable wind resource as lower Pyramid Valley, was not considered suitable for wind turbines. The summit area of Bunker Hill is small, and the existing road access would be expensive to improve. More importantly, with many WWII historical features, nearly the entire island and especially the Bunker Hill

summit area is administered by the National Park Service as part of the Aleutian World War II National Historic Area.

Figure 35: Bunker Hill 10-meter met tower (K. Arduser photo)

Bunker Hill Site and Met Tower Information

The Bunker Hill met tower was installed in mid-October 2018 at the same time as the 60-meter Pyramid and 34-meter Icy Creek Reservoir met towers (see Figure 35).[11] Refer to Table 17 for summary information of the met tower and data collected from it.

Table 17: Bunker Hill met tower summary information

Data dates	10/18/2018 to 6/16/2020
Datalogger information	NRG Symphonie PRO, 16 channel, site no. 3547
Site coordinates	53.87568 North, 166.55820 West (WGS 84 datum)
Site elevation	110 meters (361 ft.)
Wind speed, mean annual, 10 m	6.14 m/s (13.7 mph)
Wind power density, mean annual, 10 m	400 W/m^2
Wind power class	4 (good) to 5 (excellent), of 7 defined classifications
Maximum 10-min. avg wind speed	30.9 m/s
Maximum 2-sec. gust wind speed	43.6 m/s (97.5 mph)
Wind shear power law exponent	Not calculated
Calm wind frequency (winds < 4 m/s)	Approx. 35%
Extreme wind probability (50-year period)	Not calculated
Turbulence intensity, 34 m	0.147 (high)
IEC 61400-1 3rd ed. classification	Not determined

[11] Met tower installation accomplished by V3 Energy LLC with contracted assistance from Bering Straits Development Company and Solstice Alaska Consulting.

Figure 36: Bunker Hill met tower location, view north, Google Earth image

Prior to installation of the met tower, a Federal Aviation Administration (FAA) obstruction evaluation was requested. FAA issued Aeronautical Study No. (ASN) 2018-WTW-5351-OE in September 2018 with a determination of no hazard to air navigation. Obstruction lighting was required in addition to alternating bands of aviation orange and white paint on the met tower and orange high-visibility marker balls near the top of the outer guy wires to improve visibility. Obstruction lighting was accomplished with an LED light from Unimar, Inc. and a 24 Volt battery power system with a 1 kW wind turbine supplied by Renewable Energy Systems of Alaska.

The met tower was purchased as a NOW configuration from NRG Systems, Inc. As such, it had a standard suite of instrumentation for a 10-meter met tower, including two anemometers, one wind vane, and one temperature sensor, plus a pyranometer (solar irradiance sensor) that was included as an additional sensor. In February 2019, a relative humidity sensor was added (refer to Table 18).

Table 18: Bunker Hill met tower sensors

Ch	Sensor Type	Model	Name	Height (m)	Dir. (°T)
1	Anemometer	40C	10m NE	10.0	054
2	Anemometer	40C	10m W	10.0	256
13	Vane	200M	10m	9.0	144
16	Temp	T60	Temp	3.0	000
17	Rel. Humidity	RH5X	RH	1.0	090
22	Pyranometer	Li-Cor	Pyra	2.0	180

Bunker Hill Data Quality Control

As with data collected from the other met towers, Bunker Hill met tower data was manually and automatically filtered to remove compromised records. This included startup sequencing, isolated periods of power supply problems, icing events, and poorly functioning sensors. Figure 37 demonstrates several problems including a faulty boom arm on the channel 1 anemometer in June 2019 that was not corrected until August 2019. Following, the direction sensor failed in October 2019 and was replaced in November 2019. The datalogger itself experienced unexplained and strange data loss from mid-March to mid-April 2020, which resolved on its own. A review of datalogger events was not revealing. On a positive note, data loss due to icing was extremely minimal.

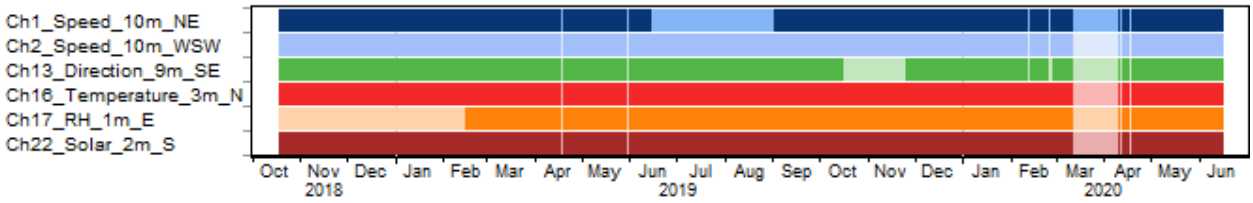


Figure 37: Bunker Hill met tower data recovery graphic

Bunker Hill Wind Speed and Data Synthesis

The Bunker Hill met tower was not installed with the intention of evaluating the wind resource at this location for wind power, but rather to lend insight into wind pattern differences between Pyramid Valley and Hog Island. As such, gap-filling reconstruction of filtered anemometer data was not employed, which explains the high measured wind speed variation between the two anemometers (see Table 19). Although a mean wind speed of 6.14 m/s at only 10 meters above ground level may seem extraordinary compared to the same mean wind speed measured at 40 meters on the Pyramid met tower, this is misleading. Although wind shear on Bunker Hill was not measured (a minimum of two levels of anemometers would be required), wind shear on exposed high hills is very nearly zero to even negative. With this, the measured wind speed at 10 meters on Bunker Hill is almost certainly representative of the wind speed much higher above ground level.

Table 19: Bunker Hill wind speeds with filtered data

Variable	Ch1_Speed_10m_NE	Ch2_Speed_10m_WSW
Mean wind speed (m/s)	6.14	5.85
Mean wind speed (mph)	13.7	13.1
Max 10-min wind speed (m/s)	30.9	29.8
Max 10-min wind speed (mph)	69.0	66.6
Max gust wind speed (m/s)	43.6	43.1
Max gust wind speed (mph)	97.5	96.4
Mean power density (W/m²)	400	353
Frequency of calms (%)	35.1	37.0

Bunker Hill Wind Direction

The primary purpose of the Bunker Hill met tower was to compare the site to mesoscale[12] winds from the Cold Bay upper air data to validate the selection of sites for installation of met towers (refer to pages 13 through 20 in the Phase II report). Figure 38 presents the measured wind rose on Bunker Hill and Figure 39 the Cold Bay upper air data wind rose. As one can see, they do not match well, possibly due to channeling of low elevation winds through the complex topography near Unalaska. Interestingly though, the Cold Bay wind rose better matches the Icy Creek Reservoir wind rose (see Figure 32) and to a lesser extent the Pyramid wind rose (see Figure 9).

In hindsight, installation of the Bunker Hill met tower was perhaps not strictly necessary as the options for readily developable wind power sites in Unalaska were few, limited to lower Pyramid Valley and Hog Island, and to a lesser extent upper Pyramid Valley, the Ptarmigan Road area of Iliuliak Valley, and on the periphery of possibility, Ballyhoo. Further, the measured wind roses of lower Pyramid valley (see Figure 9), Hog Island (see Figure 27) and Icy Creek Reservoir/Upper Pyramid Valley (see Figure 32) are explainable with their respective terrain exposures, without need to reference the upper air wind resource at Cold Bay, which lies far to the east.

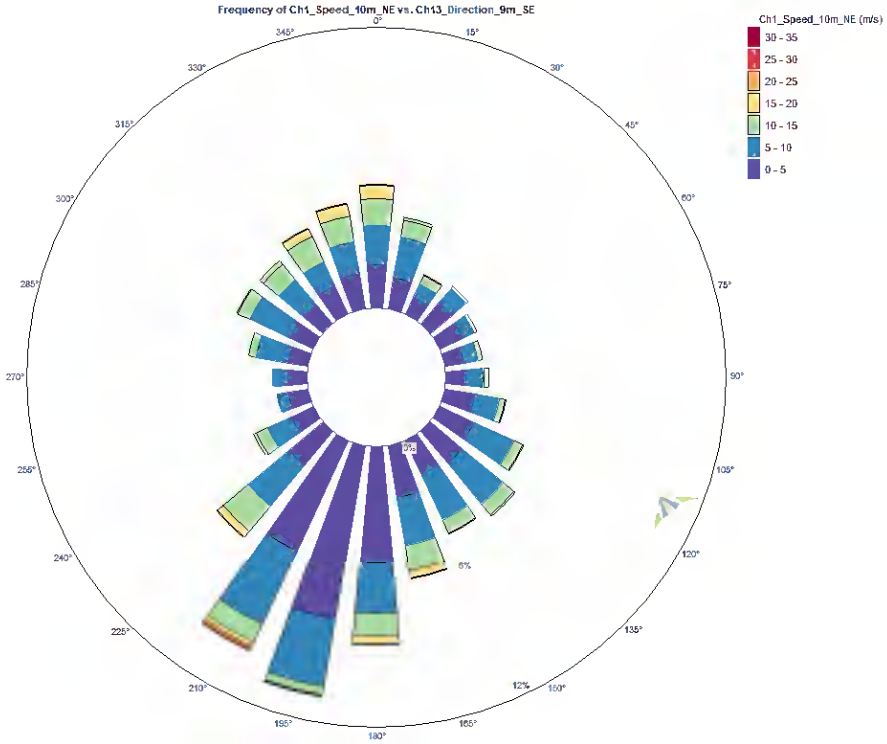


Figure 38: Bunker Hill wind energy rose, 10-meter NE anemometer

[12] Pertaining to meteorological phenomena, such as wind circulation and cloud patterns, that are about 1-to-100 km in horizontal extent (www.dictionary.com).

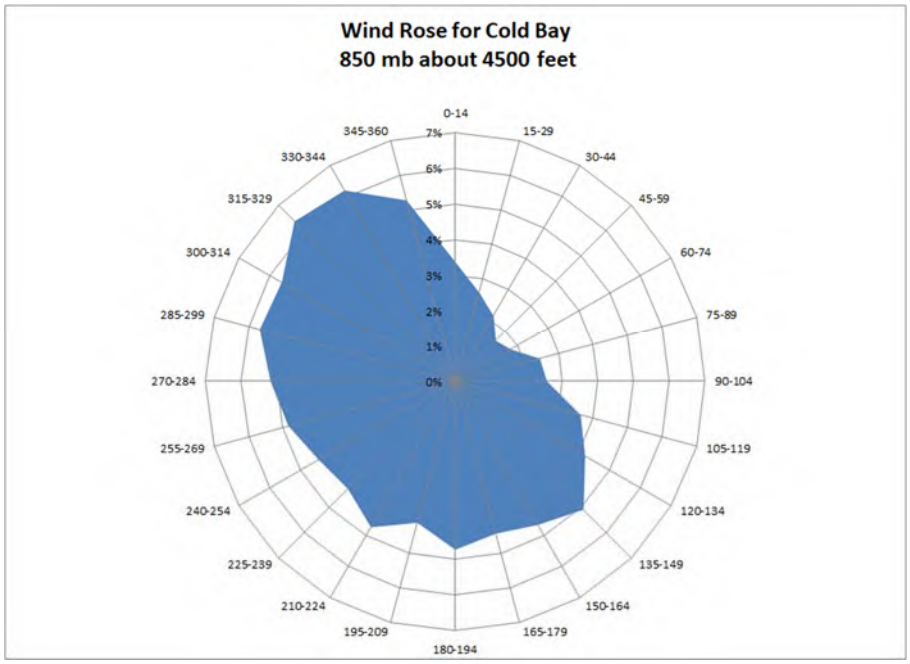


Figure 39: Cold Bay upper air (4500 ft. level) wind rose (from Phase II report)

Solar Irradiance

Bunker Hill was equipped with a pyranometer (solar irradiance sensor) to better understand Unalaska's solar power resource. Although not the focus of this report, solar power may be of interest to City of Unalaska and community residents. Figure 40 and Figure 41 lend insight into the potential, which will be explored further in a follow-on renewable energy feasibility study.

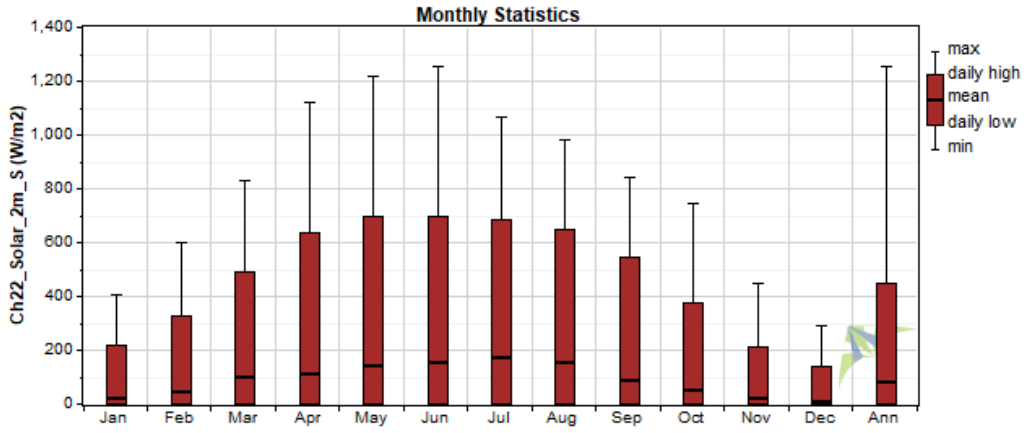


Figure 40: Bunker Hill solar irradiance boxplot, units of Watts/meter^2

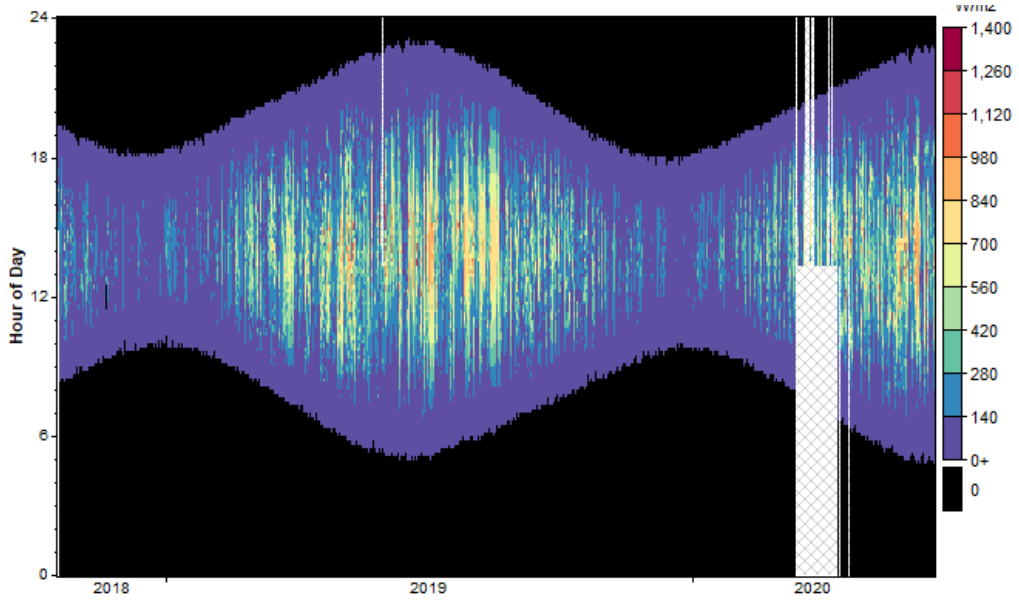


Figure 41: Bunker Hill solar irradiance Dmap, units of Watts/meter^2 on right-hand scale

Other Wind Power Site Options

During the Wind Power Development and Integration Assessment Project, Phase II site selection process, several site options other than upper and lower Pyramid Valley and Hog Island were considered (refer to pages 22 through 31 of the Phase II report). Most were rejected due to proximity to the airport, distance from existing power infrastructure, and other reasons. Two sites though – Ballyhoo (east summer area of Amaknak Island) and Ptarmigan Road (mid-elevation eastern flanks of Iliuliak Valley) – stand out as possible alternatives to lower Pyramid Valley and have high modeled wind speeds. Ballyhoo and Ptarmigan Road were considered for monitoring with met towers and ultimately rejected during the Phase II planning process in favor of focusing on Pyramid Valley and Hog Island.

Ballyhoo (east summit area of Amaknak Island)

AWS Windnavigator software predicts exceptionally strong winds on Ballyhoo (referring here to the formerly developed portion of Amaknak Island). At first glance this appears desirable, but Windnavigator modeling (discussed in the Phase II report) predicted winds that are too high for wind power development. Also, Ballyhoo is within the Aleutian World War II National Historic Area administered by the U.S. National Park Service, there is no existing power distribution serving the area, and perhaps most significantly, the access road is very steep with exceptionally tight switchback turns. These challenges aside, Ballyhoo presents significant wind power potential that may warrant wind resource measurement with a 10-meter met tower.

Ptarmigan Road (eastern flank of Iliuliak Valley)

This site area is past the turnout of Upper Ptarmigan Road after it turns north and away from Ski Bowl Road. AWS Windnavigator software predicts an excellent wind resource in this area, mostly due to its higher elevation than lower Pyramid Valley. Ptarmigan Road consists of two possible sites, one near the end of the access road and the other downhill and beyond it.

Access to the site area is reasonably easy on a well-maintained road. Drawbacks however include lack of high voltage service in Iliuliuk Valley that would be expensive to upgrade per Department of Public Utilities personnel, location within the instrument approach area to Runway 31 (although this approach is not used and the restriction perhaps could be successfully challenged), and nearness to housing development with the potential for noise and shadow flicker complaints.

Comparison to Kodiak's Pillar Mountain

Comparison of Pyramid to Kodiak Island's Pillar Mountain wind power site was requested to better understand how the wind resource in Unalaska compares. With completion of data collection activities, Pyramid classifies as low wind power class 5 (description: excellent), of seven defined wind classes. With data collection from 2005 to 2007, Kodiak's Pillar Mountain was assessed as wind power class 7 (superb). Note however that comparatively few wind turbines worldwide operate in Class 7 winds.

Table 20: Pyramid-Kodiak Pillar Mountain comparison

Wind characteristic (60-meter level)	Unalaska Pyramid Valley	Kodiak Pillar Mountain
Site elevation	103 m (334 ft.)	390 m (1,280 ft.)
Mean wind speed	6.84 m/s (15.3 mph)	8.35 m/s (18.6 mph)
Wind power density	548 W/m^2 (class 5 of 7)	956 W/m^2 (class 7 of 7)
Max. 10-min. avg wind speed	37.5 m/s (83.9 mph)	39.9 m/s (89.2 mph)
Max. 2-second gust	51.4 m/s (115.0 mph)	49.7 m/s (111.2 mph)
Calm wind probability (winds <4 m/s)	~33%	~21%
Wind shear power law exponent	0.100 (low)	0.023 (extremely low)
Extreme wind probability (50-year period, 10-min avg. wind speed)	41.3 to 47.6 m/s, IEC Class II	46.0 m/s, IEC Class II
Turbulence intensity and category	0.120, Cat. B (moderate)	0.106, Cat. C (low)
IEC 61400-1, 3rd ed. classification[13]	Class II-B	Class II-C

As demonstrated in Table 20, Pillar Mountain's mean wind speed and associated wind power density are higher than at Pyramid, but gust winds and extreme wind probability are similar. From an IEC classification perspective, the wind turbines installed on Pillar Mountain are also suitable for Pyramid, but given Pyramid's lower mean wind speed, wind turbines there would have lower annual energy production than on Pillar Mountain.

[13] International Electrotechnical Commission design standard for Wind Energy Generation Systems

Appendix A – IEC Wind Classification

Six parameters comprise IEC 61400-1, 3rd edition, wind classification:

1. Extreme wind
2. Wind shear
3. Wake turbulence
4. Flow inclination
5. Wind distribution
6. Turbulence intensity

IEC's simplified wind classification is intended to apply to most sites and relies on two of the six parameters: extreme wind probability (Class I, II, III, or S) and turbulence intensity (Category A, B, or C).

Extreme Wind

The classification of extreme wind is by V_{ref}, the reference wind speed, which is the highest measured or probable 10-minute average wind speed in a 50-year return period. This is accomplished with a Gumbel distribution analysis[14] which can be used to model the probability of extreme wind events. It is categorized in Table 21. Note also in **Error! Reference source not found.**Table 21 reference to maximum (3-sec. duration) gust wind in a one-year return period for each IEC extreme wind classification.

Table 21: IEC 61400-1, 3rd edition, extreme wind classes

Wind Class	I	II	III	S
V_{ref} (m/s)	50.0	42.5	37.5	Designer spec.
V_{gust} (m/s)	70.0	59.5	52.5	

Wind Shear

A wind shear, or power law, exponent, α, calculated by Equation 3 where *V* = wind speed and *Z* = height above ground level, between 0 and 0.2. α=0 would indicate no wind shear and α=0.2 would indicate very high wind shear.

Equation 3: Wind shear and power law exponent

$$V(z) = V(hub) \times \left({}^{Z}/_{Zhub}\right)^{\alpha}$$

Wake Turbulence

For comparison with the normal turbulence model, the IEC suggests an effective turbulence intensity, which is an ideal turbulence independent on wind direction and expected to cause the same fatigue damage as variable turbulence in winds from all directions. The effective turbulence intensity includes added turbulence from wakes of neighbor turbines.[15]

Flow Inclination

A wind flow vector not exceeding 8 degrees from horizontal (plus or minus).

[14] Gumbel distribution - Wikipedia

[15] The IEC 61400-1 turbine safety standard - WAsP

Wind Distribution

A wind speed, or histogram, where a Weibull function[16] yields a unitless shape factor (*k*) of 2.0 (known as a Rayleigh distribution) or less (see Figure 42).

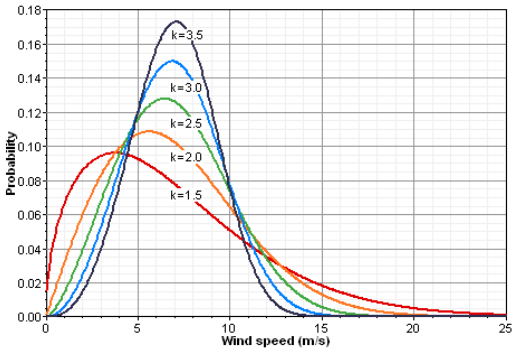


Figure 42: Weibull k shape curves

Turbulence Intensity

The turbulence intensity (*TI*) is a dimensionless number defined by the standard deviation (σ) of the wind speed within each time step (10 minutes for wind power analysis) divided by the mean wind speed (*V*) over that time step (see Equation 4).

Equation 4: Turbulence intensity

$$TI = {}^{\sigma i}/_{Vi}$$

IEC 61400-1, 3rd ed., defined turbulence categories based on mean turbulence intensity at a wind speed of 15 m/s (see Table 22).

Table 22: IEC 61400-1, 3rd edition, turbulence categories

Turb. Category	S	A	B	C
TI at 15 m/s	>0.16	0.14-0.16	0.12-0.14	<0.12

Simplified Wind Classification

Although there are six criteria to consider in IEC 61400-1 for wind turbine siting, the simplified evaluation considers just two of them: extreme wind probability and turbulence intensity. This yields the familiar wind turbine design classifications of, for example, Class IIA or Class IIIC (see Table 23).

Table 23: IEC 61400-1, 3rd edition, simplified wind classification

Wind Class	I	II	III	S
V_{ref} (m/s)	50.0	42.5	37.5	Values specified by the designer
A (TI_{ref})	0.16			
B (TI_{ref})	0.14			
C (TI_{ref})	0.12			

[16] Weibull distribution - Wikipedia

Appendix B – Pyramid Valley detailed met tower information

Table 24: Pyramid met tower complete sensor installation information

Sensor Type	Model	Name	Height (m)	Dir. (°T)	Serial No.	Scale	Offset	Boom (m)	Mt Angle	Terminal	Logging mode
Anemometer	40C	60m E	59.7	094	311709	0.76770	0.3349	2.4		1	Stats and samples
Anemometer	40C	60m W	59.3	269	311713	0.76214	0.3485	2.4		2	Stats
Anemometer	40C	50m E	50.2	094	311722	0.75942	0.3471	2.4		3	Stats and samples
Anemometer	40C	50m W	49.7	269	311723	0.75805	0.3841	2.4		4	Stats
Anemometer	40C	40m E	38.9	094	311724	0.76344	0.3218	2.4		5	Stats
Anemometer	40C	40m W	38.4	269	311873	0.75806	0.3600	2.4		6	Stats
Vane	200M	60m	57.4	027	742	147.911	-1.4602	2.4	180	13	Stats and samples
Vane	200M	50m	48.0	038	807	147.911	-1.4602	2.4	180	14	Stats
Temp	T60	Temp	3.0	000	n/a	44.7436	-40.8555	none		16	Stats
Rel. Humidity	RH5X	RH	2.0	000	n/a	20	0	none		19	Stats
RM Young	27106T	Vert Spd	55.3	311	n/a	18	0	1.9		20	Stats and samples

Table 25: Pyramid met tower monthly combined anemometer data

		60m cmb				50m cmb			40m cmb		
		DRR	Mean	Max	Gust	Mean	Max	Gust	Mean	Max	Gust
Year	Month	(%)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)
2018	Oct	90.2	6.31	15.2	25.5	6.20	14.9	23.4	6.10	14.7	24.0
2018	Nov	95.3	5.85	17.1	31.1	5.73	17.0	34.0	5.66	17.0	34.2
2018	Dec	96.3	7.32	25.4	33.1	7.20	24.7	33.0	7.07	24.2	33.2
2019	Jan	100.0	7.50	29.8	36.9	7.36	28.8	36.5	7.24	28.5	36.2
2019	Feb	100.0	8.69	26.3	34.4	8.47	25.6	34.8	8.27	25.3	33.7
2019	Mar	100.0	7.21	25.8	31.3	7.11	25.1	30.7	6.97	24.7	29.8
2019	Apr	96.5	5.59	22.1	26.5	5.52	21.9	26.9	5.43	21.9	26.5
2019	May	99.3	4.37	12.8	21.4	4.34	12.3	20.1	4.28	12.0	19.7
2019	Jun	100.0	4.39	18.5	23.0	4.34	18.1	23.1	4.28	17.8	22.5
2019	Jul	100.0	5.77	17.4	21.2	5.70	17.1	21.4	5.66	16.8	20.7
2019	Aug	99.5	5.63	21.9	28.3	5.64	21.3	27.2	5.57	20.8	27.3
2019	Sep	100.0	7.22	22.2	27.5	7.12	21.6	28.4	6.96	21.2	27.6
2019	Oct	100.0	6.40	28.5	39.7	6.30	27.6	38.8	6.16	27.0	38.5
2019	Nov	100.0	6.11	18.1	27.3	5.97	17.6	26.2	5.86	17.4	26.5
2019	Dec	97.6	7.36	28.6	39.7	7.19	27.6	40.3	7.11	27.8	40.0
2020	Jan	100.0	6.69	23.8	29.6	6.56	23.2	29.2	6.52	22.9	29.6
2020	Feb	96.9	7.71	27.9	37.9	7.58	27.0	39.8	7.46	26.9	38.2
2020	Mar	100.0	7.39	26.3	34.6	7.29	25.5	36.0	7.19	25.0	35.4
2020	Apr	100.0	5.45	19.6	25.2	5.35	19.0	23.4	5.28	18.6	23.2
2020	May	99.4	5.33	26.0	33.1	5.21	25.4	32.8	5.17	25.0	31.6
2020	Jun	97.0	4.84	18.3	24.5	4.39	17.9	23.6	4.69	17.9	23.0
2020	Jul	96.2	4.38	15.6	18.6	3.57	15.3	17.8	4.45	15.8	18.6
2020	Aug	97.9	4.72	37.5	51.2	4.65	37.0	49.5	4.70	36.1	49.7
2020	Sep	97.9	5.99	19.1	25.2	5.99	19.5	24.9	5.83	19.4	25.5
2020	Oct	97.0	6.31	22.9	30.6	6.23	22.3	31.2	6.07	21.9	32.1
2020	Nov	98.8	8.49	25.4	38.2	8.40	25.5	39.6	8.16	25.2	41.5
2020	Dec	96.5	7.19	24.1	34.6	7.21	23.5	34.5	6.96	23.1	34.4
2021	Jan	100.0	8.15	25.4	36.2	8.15	25.0	34.3	7.92	24.8	37.2
2021	Feb	95.2	7.75	21.6	31.1	7.68	21.0	32.2	7.45	20.7	33.4
2021	Mar	97.3	8.30	23.7	37.9	8.25	23.1	38.3	7.99	22.8	38.5
2021	Apr	100.0	6.72	20.8	27.3	6.62	20.3	26.4	6.49	19.9	26.5
2021	May	100.0	5.31	17.8	23.2	5.27	17.2	23.4	5.10	16.7	22.2
2021	Jun	100.0	5.66	23.9	33.1	5.64	23.3	32.2	5.37	22.9	29.8
2021	Jul	100.0	5.74	15.6	20.4	5.67	15.4	19.8	4.69	14.8	19.9
2021	Aug	82.5	6.92	19.5	22.2	6.81	18.8	21.9	5.82	18.2	21.7
All Data		98.3	6.40	37.5	51.2	6.28	37.0	49.5	6.17	36.1	49.7
Mean of monthly means			6.39			6.28			6.16		

Appendix C – Hog Island detailed met tower information

Table 26: Hog Island met tower complete sensor installation information

Sensor Type	Model	Name	Height (m)	Dir. (°T)	Serial No.	Scale	Offset	Boom (m)	Mt Angle	Terminal	Logging mode
Anemometer	40C	60m E	59.7	098	315386	0.76311	0.318	2.4		1	Stats
Anemometer	40C	60m W	59.3	269	315376	0.76207	0.3316	2.4		2	Stats
Anemometer	40C	50m E	50.3	098	315397	0.76227	0.3393	2.4		3	Stats
Anemometer	40C	50m W	49.8	269	315394	0.76234	0.3279	2.4		4	Stats
Anemometer	40C	40m E	40.9	098	315393	0.76008	0.3338	2.4		5	Stats
Anemometer	40C	40m W	40.4	269	315375	0.76293	0.3252	2.4		6	Stats
Vane	200M	60m	57.4	148	1354	147.911	-1.4602	2.4	180	13	Stats
Vane	200M	50m	47.7	220	1346	147.911	-1.4602	2.4	180	14	Stats
Temp	T60	Temp	3.0	000	183	44.7436	-40.8555	none		16	Stats
Barom. Press.	BP20	BP	2.0	270	536670	217.9	106.3	none		17	Stats
Rel. Humidity	RH5X	RH	2.0	270	n/a	20	0	none		19	Stats
RM Young	27106T	Vert Spd	55.56	223	n/a	18	0	1.9		20	Stats

Appendix D – Icy Creek Reservoir detailed met tower information

Table 27: ICR met tower complete sensor installation information

Sensor Type	Model	Name	Height (m)	Dir. (°T)	Serial No.	Scale	Offset	Boom (m)	Mt Angle	Terminal	Logging mode
Anemometer	40C	34m ESE	34.0	121	311702	0.76336	0.3121	1.53		1	Stats
Anemometer	40C	34m WSW	34.0	262	311703	0.76077	0.3391	1.53		2	Stats
Anemometer	40C	20m ESE	20.5	124	311704	0.75933	0.3793	1.53		3	Stats
Vane	200M	Direction	33.0	281	794	147.911	-1.4602	1.53	180	13	Stats
Temp	T60	Temp	2.5	000	n/a	44.7436	-40.8555	none		16	Stats
Rel. Humidity	RH5X	RH	2.0	000	n/a	20	0.0000	none		17	Stats

Appendix E – Bunker Hill detailed met tower information

Table 28: Bunker Hill met tower complete sensor installation information

Sensor Type	Model	Name	Height (m)	Dir. (°T)	Serial No.	Scale	Offset	Boom (m)	Mt Angle	Terminal	Logging mode
Anemometer	40C	10m NE	10.0	054	311706	0.76026	0.338	1.53		1	Stats
Anemometer	40C	10m W	10.0	256	311707	0.76465	0.3163	1.53		2	Stats
Vane	200M	10m	9.0	144	804	147.911	-1.4602	1.53	180	13	Stats
Temp	T60	Temp	3.0	000	106	44.7436	-40.8555	none		16	Stats
Rel. Humidity	RH5X	RH	1.0	090	n/a	20	0	none		17	Stats
Pyranometer	Li-Cor	Pyra	2.0	180	105963	15.99	0.0000	none		22	Stats

Appendix F – Met tower documentation photographs

Pyramid 60 m met tower, view to north

Pyramid 60 m, water treatment plant and Icy Creek access road, south view from site area

Pyramid 60 m, north view

Pyramid 60 m, northeast view

Pyramid 60 m, east view

Pyramid 60 m, southeast view

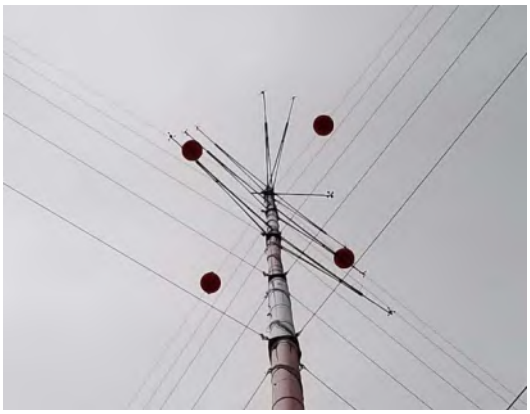
Pyramid 60 m, south view

Pyramid 60 m, southwest view

Pyramid 60 m, west view

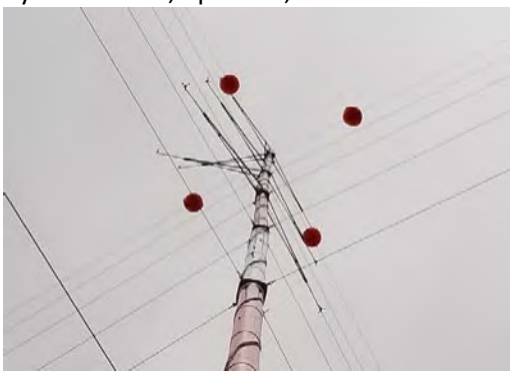
Pyramid 60 m, northwest view

Pyramid 60 m, uptower, north face



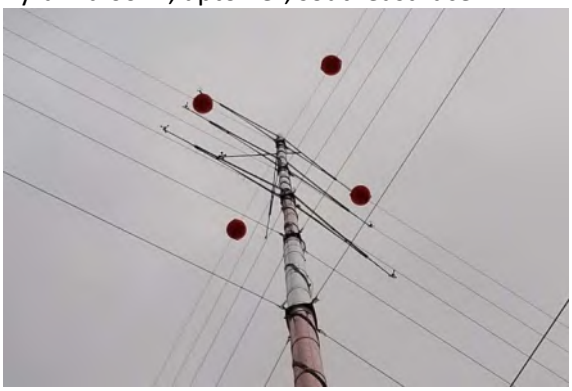
Pyramid 60 m, uptower, northeast face

Pyramid 60 m, uptower, east face

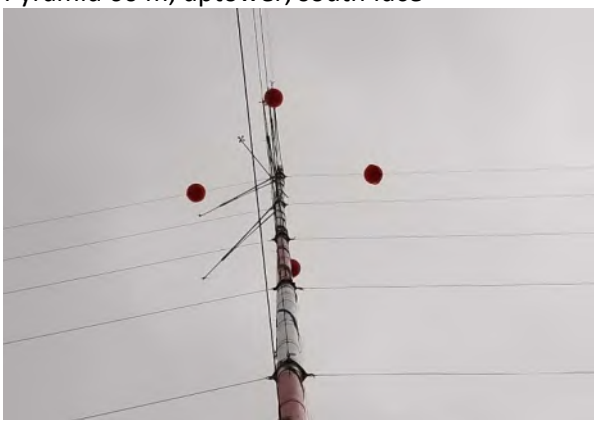


Pyramid 60 m, uptower, southeast face

Pyramid 60 m, uptower, south face



Pyramid 60 m, uptower, southwest face



Pyramid 60 m, uptower, west face

Pyramid 60 m, uptower, northwest face

Pyramid 60 m, north side (view to south)

Pyramid 60 m, east side (view to west)

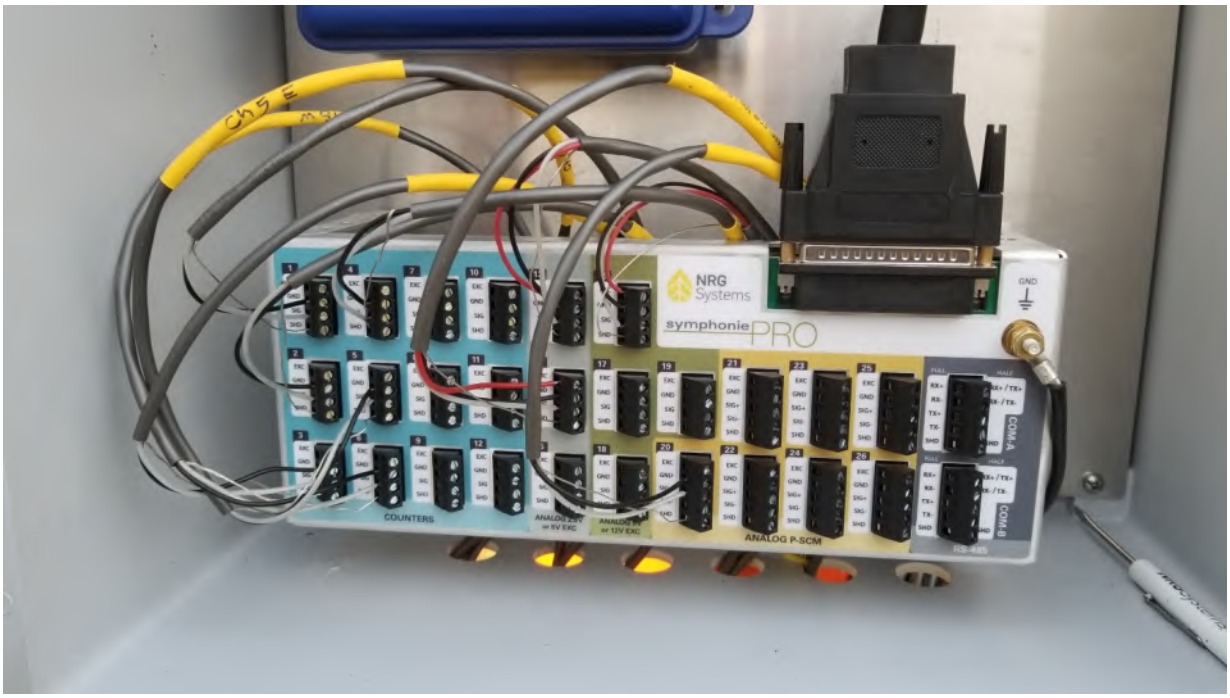
Pyramid 60 m, south side (view to north)

Pyramid 60 m, west side (view to east)

Pyramid 60 m, tower base


Pyramid 60 m, inside weather box

Pyramid 60 m, datalogger



Pyramid 60 m, datalogger wiring panel


Pyramid 60 m, north anchors


Pyramid 60 m, east anchors

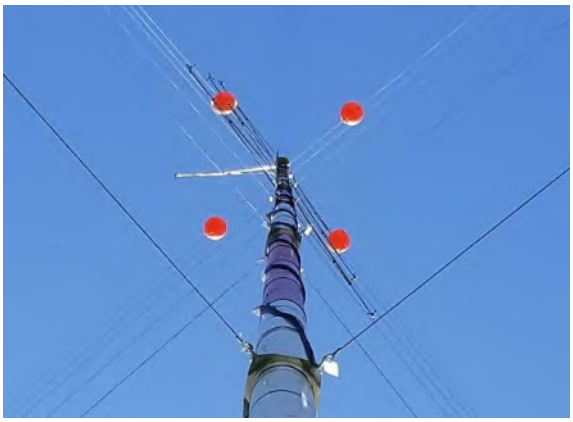

Pyramid 60 m, south anchors


Pyramid 60 m, west anchors

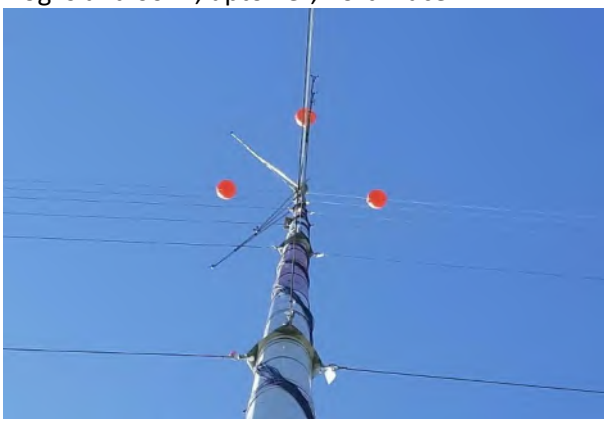
Hog Island 60 m met tower, view to north, Bob Cummings photo

Hog Island tower during assembly, view south

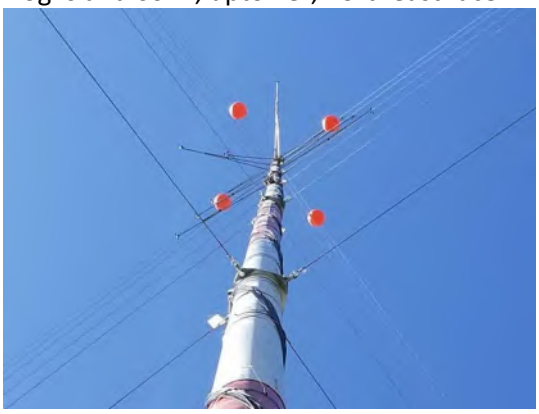
Hog Island 60 m, uptower, north face



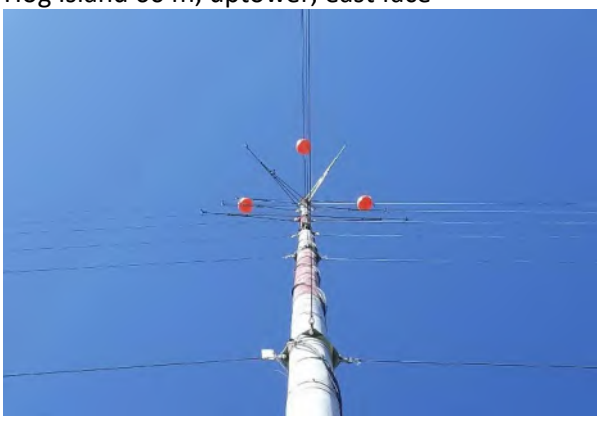
Hog Island 60 m, uptower, northeast face



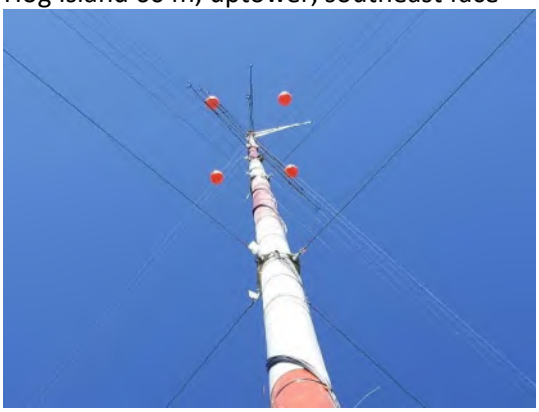
Hog Island 60 m, uptower, east face



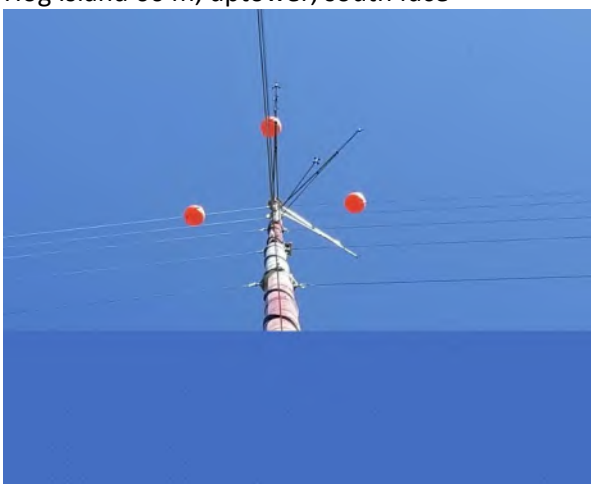
Hog Island 60 m, uptower, southeast face



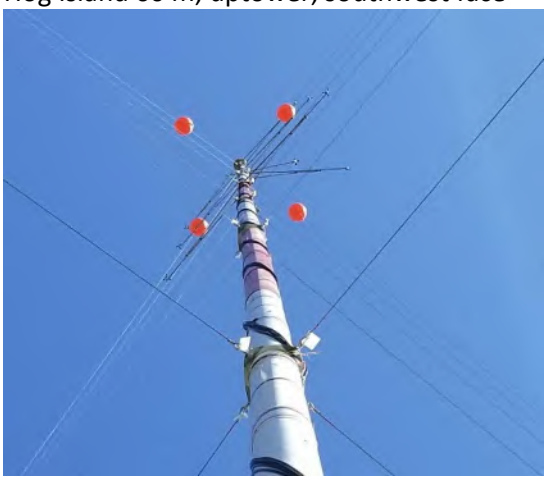
Hog Island 60 m, uptower, south face



Hog Island 60 m, uptower, southwest face



Hog Island 60 m, uptower, west face



Hog Island 60 m, uptower, northwest face

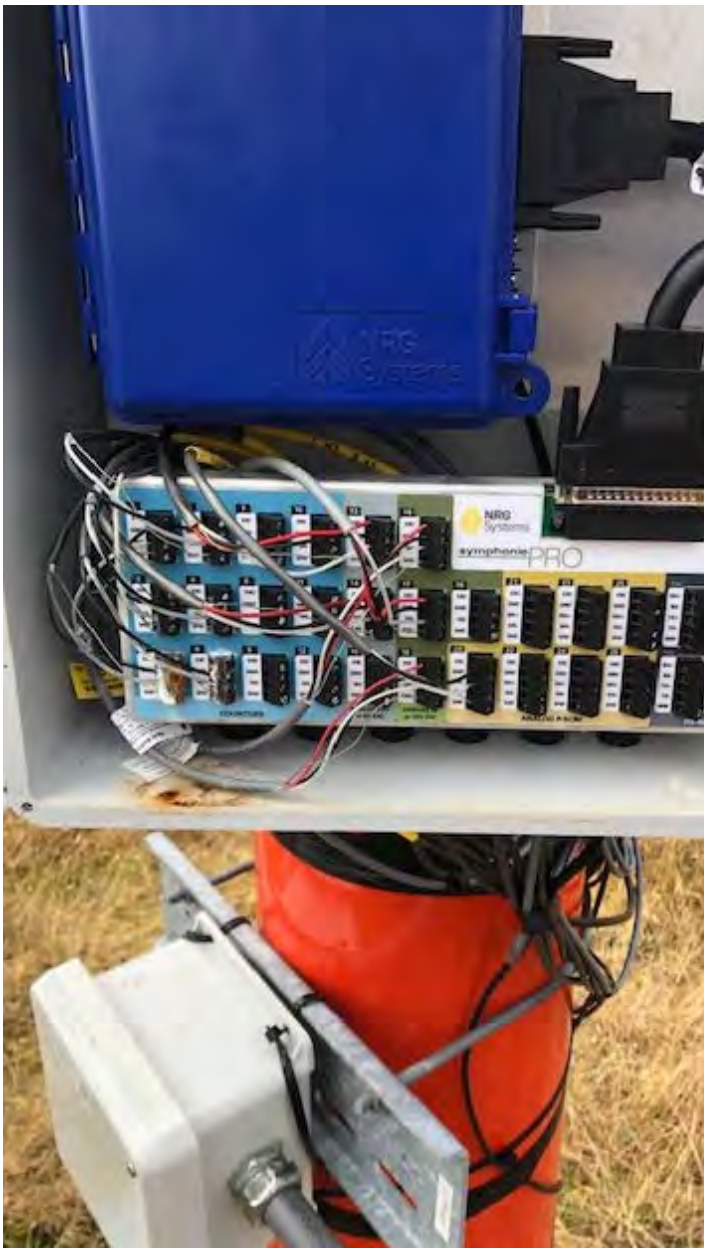
Hog Island 60 m, north side (view to south)

Hog Island 60 m, east side (view to west)

Hog Island 60 m, south side (view to north)

Hog island 60 m, west side (view to east)

Hog Island 60 m, tower base



Hog Island 60 m, inside weather box

Hog Island 60 m, power system for lights

Hog Island 60 m, inside lighting control weather box

ICR 34 m met tower, view to northwest

ICR 34 m met tower winter view, view to northwest (K. Arduser photo)

ICR 34 m site, north view

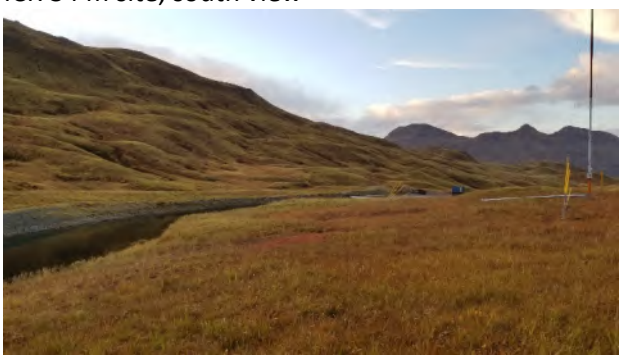
ICR 34 m site, northeast view

ICR 34 m site, east view

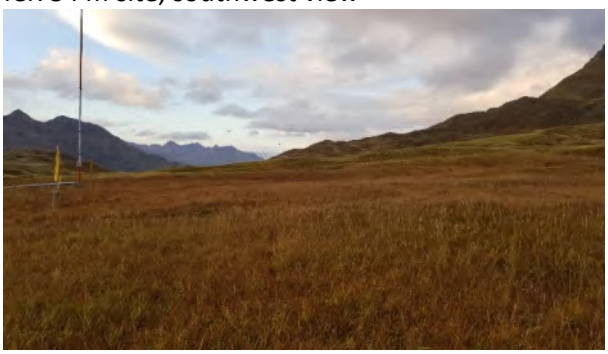
ICR 34 m site, southeast view (with K. Arduser)

ICR 34 m site, south view

ICR 34 m site, southwest view



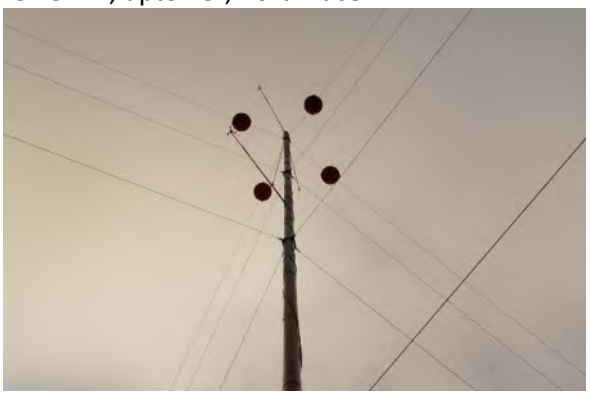
ICR 34 m site, west view



ICR 34 m site, northwest view

ICR 34 m, uptower, north face

ICR 34 m, uptower, northeast face



ICR 34 m, uptower, east face

ICR 34 m, uptower, southeast face

ICR 34 m, uptower, south face

ICR 34 m, uptower, southwest face

ICR 34 m, uptower, west face

ICR 34 m, uptower, northwest face

ICR 34 m, northeast side (view to southwest)

ICR 34 m, southeast side (view to northwest)

ICR 34 m, southwest side (view to northeast)

ICR 34 m, northwest side (view to southeast)

ICR 34 m, tower base

ICR 34 m, datalogger wiring panel

ICR 34 m, datalogger

ICR 34 m, northeast anchors

ICR 34 m, southeast anchors

ICR 34 m, southwest anchors

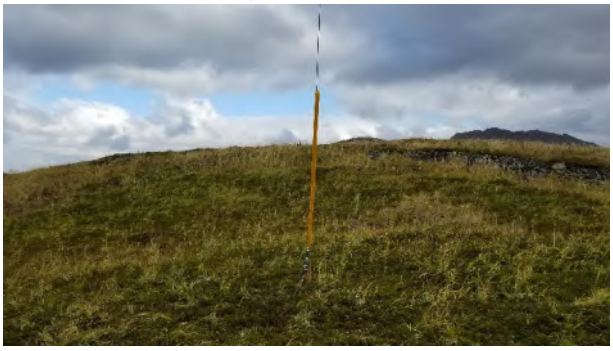
ICR 34 m, northwest anchors

Bunker Hill 10 m met tower, view to north

Bunker Hill 10 m met tower during installation

Bunker Hill 10 m site, north view

Bunker Hill 10 m site, northeast view



Bunker Hill 10 m site, east view

Bunker Hill 10 m site, southeast view

Bunker Hill 10 m site, south view

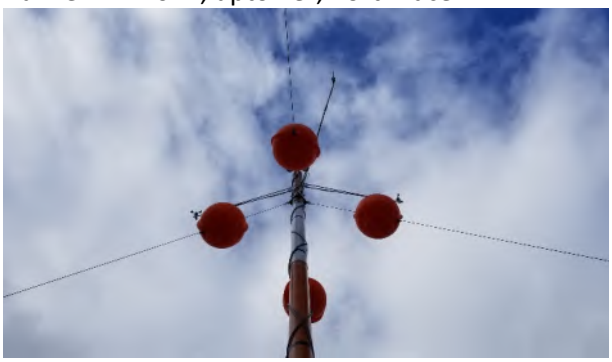
Bunker Hill 10 m site, southwest view

Bunker Hill 10 m site, west view

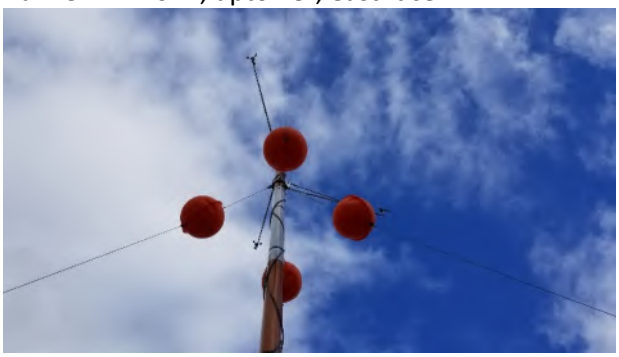
Bunker Hill 10 m site, northwest view

Bunker Hill 10 m, uptower, north face

Bunker Hill 10 m, uptower, east face



Bunker Hill 10 m, uptower, south face



Bunker Hill 10 m, uptower, west face

Bunker Hill 10 m, north side (view to south)

Bunker Hill 10 m, east side (view to west)

Bunker Hill 10 m, south side (view to north)

Bunker Hill 10 m, west side (view to east)

Bunker Hill 10 m, weather box

Bunker Hill 10 m, datalogger wiring panel

Bunker Hill 10 m, datalogger

Obstruction light batteries and turbine controller

2022

CAPTAINS BAY ROAD CORRIDOR IMPROVEMENT PLAN

PREPARING UNALASKA FOR FUTURE DEVELOPMENT
UNALASKA, AK

CITY OF UNALASKA
NOVEMBER 10, 2022

Table of Contents

Summary

Unalaska, Alaska is home to Dutch Harbor and holds state, national, and international economic importance as the largest fishing port in the United States by volume caught. Much of the seafood arriving in Unalaska is transported along Captains Bay Road which is presently a 2.6-mile-long gravel road. During peak seafood seasons the roadway's traffic counts average 1,000 vehicles per day; 75 percent are semi-trucks and other industrial vehicles that operate 24-hour-per-day, 7-day-per-week to support the seafood industry's operations. [2]

Captains Bay Road (CBR) is narrow with minimal shoulders separating it from the bay on one side and rock cliff face on the other. Regular rock falls pose hazardous risks for vehicles and people. The lack of lighting and pedestrian pathways create unsafe conditions for pedestrians and vehicles. The gravel roadway surface has poor surface drainage, sharp curves, and potholes so deep and intrusive that drivers are unable to reach the posted traffic speed of 30 mph.

In winter, CBR's dangerous, slippery conditions lead to frequent accidents; trucks and other vehicles often slide off the road. In summer the road is often dusty on dry, windy days. The rough road conditions require the City of Unalaska (City) to grade the road twice per week. The regular maintenance also slows traffic which adds time and cost to users, but regular grading is needed otherwise the road creates high vehicle maintenance costs due to excessive wear and tear.

Alaska based company GCI is installing fiber service to Unalaska. The new fiber service is scheduled to be operational in December, 2022.

City of Unalaska/Port of Dutch Harbor

City of Unalaska/Port of Dutch Harbor Unalaska is the anchor for commercial fishing activity in the Bering Sea and the Aleutian Islands. According to National Oceanic and Atmospheric Administration's report Fisheries of the United States 2019, [1] Unalaska's Port of Dutch Harbor led the nation with the greatest quantity of fish landed, a distinction held for more than 23 years; during those same years, the port was rated either first or second in value of the catch. During 2019, commercial fisherman delivered 763 million pounds of seafood at the port, valued at $190 million, ranking the Port of Dutch Harbor second in the nation for value of the catch. Approximately 400 vessels fish the Aleutian Islands and Bering Sea for various groundfish, halibut, salmon, herring, and crab species. The fleet utilizes approximately 12,000 feet of city dock space, with an additional 10,000 feet of commercial dock space available within the community.

Proposed Improvements

Constraints

The CBR Corridor Improvements propose to improve roadway safety for vehicles and pedestrians, provide better access to industry via paved surface with drainage, remove the most dangerous curves and segments of roadway subject to falling and protruding rock, and extending or installing new infrastructure including water, wastewater and drainage to better accommodate industry. However, numerous constraints exist that add additional costs and time to the project.

Roadway realignments and straightening involves acquiring additional land in some places for road and pedestrian rights-of-ways and to implement proper curve radii and sight distances for safer turns and speeds. It's also necessary to cut back some areas of tall rock and to move the roadway seaward where

[1] National Marine Fisheries Service, Fisheries of the United States 2019, https://media.fisheries.noaa.gov/2021-05/FUS2019-FINALwebready-2.3.pdf?null=

[2] HDR, Unalaska Captains Bay Road Paving and Utility Extension Draft Cost-Benefit Analysis, 2022

necessary. Permitting will also require the project minimize ocean fills which can take years for approval. Last, to save money it would be best to reuse the Pyramid Creek Bridge. New road and paving design will require compliance with the Americans with Disabilities Act and where any intersections involving pedestrian ways will need accessibility ramps in place of curbing.

Access

CBR intersects with a low spot on Airport Beach Road. That segment of Airport Beach Road is also curved and is situated between the South Channel Bridge and the Unalaska Public Safety Building. The paved apron is typically covered with gravel, dirt and mud and creates a hazard tractor trailer rigs to pull out onto the roadway.

Access poses concerns further down CBR where Westward Seafoods' facilities are transected by the roadway, which is not proposed to change in this plan. However, paving, lighting, directional signage and surface drainage will minimize the most serious dangers for the company's 500 permanent and temporary employees, most of whom live across the roadway from the industrial facility.

Rights of Way

The proposed roadway improvements need additional rights-of-way. The roadway needs straightened and widened to accommodate wider lanes and new pedestrian paths and walkways. There are a few areas where private land owners and corporations own the land CBR sits on. Acquiring rights-of-way/ easements will guarantee access for everyone.

Roadway Pavement

The project proposes paving CBR between Airport Beach Road and OSI Inc. (OSI). The overall roadway width will measure 30' for about 2.6 miles. The roadway will have two 13' wide travel lanes and two - two foot (2') paved shoulders/ berms. The City has several estimates for paving CBR beyond OSI Inc.

Pedestrian Walkway

A six foot (6') wide pedestrian walkway is proposed along CBR, separated from the roadway by curb and gutter. It will connect Westward Seafoods (Westward) to Airport Beach Road. This area has the largest number of pedestrians who access the community from Westward. It's also the heaviest travelled segment of roadway.

The new walkway will continue on CBR between Westward and OSI but will be integrated with a (6') shoulder on a widened roadway and separated by a rumble strip.

Utilities

Work on CBR and utilities is ongoing. Most recent is the trenching work for the GCI Fiber Optic project that will connect businesses on CBR to internet. Work the City is proposing to undertake can be seen in Table 3: Current CBR Corridor Improvement Project Phasing & Timeline on page 11.

Drainage

One of the most significant safety improvements will be better surface drainage. Unalaska temperatures hover around freezing in winter, which makes the roadway slushy with ice and mud. The poor drainage requires significant maintenance. The City incurs significant maintenance costs grading the roadway twice per week. The City resurfaces the road with gravel once or twice per year.

Community Benefits

Improved Roadway Safety

Clearly the community will benefit from improved safety. Many of Unalaska's residents work at the processing plants, drive the tractor-trailers that deliver products from the plants to the ports, and safety affects everyone. Fewer accidents and less wear and tear on private vehicles should improve everyone's experience on the roadway.

Improved Pedestrian Safety

Extending a separated pedestrian pathway along the road will encourage more foot traffic to town and enhance the pedestrian safety and walkway experience.

Benefits to City

Reduced Road Maintenance Costs

The City will spend less money on annual road maintenance costs for CBR. Annual road maintenance costs between 2016 and 2019 for CBR and Ballyhoo Road have been calculated to be $85,000 per mile annually to maintain a gravel road versus a paved road.

Avoided Water Tank Failure

The Pyramid Water Storage Tank (WST) cannot be taken offline for extended maintenance without violating drinking water regulations. The tank is currently in critical need of cleaning, inspection, and potentially maintenance. Extending a new water main eliminates the need for a second WST and booster pump station, which would otherwise cost the City more than $10 million.

Reduced Water Leakage

A World War II-era wood stave pipe is still in operation. The 80-year-old pipe leaks about 50 million gallons of water per year into the ground. A new water main will eliminate wood pipe and its water leakage and costs.

Increased Water Supply

Presently the City must always keep the Pyramid 2.6 million gallon water storage tank (WST) at least two-thirds full (1.7 million gallons) to insure water delivery to NPF. This restriction effectively reduces the amount of storage capacity of this water storage tank and the amount of water that can be supplied from the Pyramid water supply system. The project will extend a new water main, will increase the water supply capacity, and allow the City to keep up with peak season water demand with less reliance on the City's three wells. It will also provide a buffer for water supply during emergencies or disaster events.

Economic Development

The City's tax base will be supported by the roadway improvements. More businesses mean more product moving in and out of the ports and more port tariffs and fees; more employees working at plants will also support local businesses. More focus can be given to attracting compatible industrial development on the road and its aesthetic appearance should serve to attract additional development on its own.

Benefits to Businesses and Land Owners

Reduced Vehicle Maintenance Cost

Companies will incur significantly less costs on vehicle maintenance with a paved roadway. Dust from the gravel road surface requires frequent changes to truck air filters and leaf springs. This, combined with the rough road conditions, causes significant wear and tear to truck parts.

Travel Time Savings

Though CBR's speed limit is 30 mph, the rough road conditions mean drivers drive much slower than the designed speed limit. Driving speeds of passenger and commercial vehicles often drops to as low as 10 mph prior to grading.

Avoided Lane Closure & Injuries from Potential Rock Falls

Large rock falls have been observed once or twice per year along CBR. These can create hours of lane closures while the roadway is cleared. In addition to costing companies' time and money, the rock falls threaten vehicles, pedestrians, and bicyclists on the road.

Improved System Reliability

Certain local businesses on CBR are currently self-sufficient, with their own electricity generation. Extending utility services along CBR can serve as backup if any business' private system goes out of service and avoid any service disruptions

Utility Upgrades

The project involves primarily the extension of a City water main on CBR from Westward to NPF. It also extends City electricity in conduits that would be buried in the road; however, the major facilities along CBR already generate their own power and at this time have not shown interest in purchasing electricity from the City.

Funding and Costs

The CBR project has been on the City Capital Major Maintenance Plan (CMMP) for five years, but has been on the drawing board for over a decade. The CMMP section included below summarizes the costs over the five years the project was included in the plan. Cost estimates have ranged over the years between $24.3M in 2017 to $59M in 2020. The estimates change annually based on pricing fluctuations for materials, shipping, construction and labor as well as project scope modifications.

At the time of preparing this report, the CBR project has again undergone a significant change. This past year inflation has increased dramatically, supply chains have weakened as a result of two years from COVID-19's impact on world markets, and a new project has been proposed to anchor Captains Bay Road. Table 1: Project Costs by Segment, Infrastructure Type and Fiscal Year illustrates the current estimates by segment and type of infrastructure improvement including water, sewer, electric, and paving and safety improvements. These are estimated for each Segment, A through D, with the latter being an additional CBR improvement area included to support the proposed Trident project.

Table 2: CBR Paving & Utility Extension Project Scenarios, 2020 Dollars

Reference	Segment	Water	Sewer	Electric	Paving	Safety Improvements	TOTAL	YEAR	TOTAL
		(millions of dollars)					(by segment)		(by FY)
ABR-WSI	A				$ 12.9		$ 12.9	FY23	$ 4.9
WSI-NPF	B	$ 3.6	$ 4.4	$ 1.0	$ 10.3	$ 4.5	$ 23.8	FY24	$ 4.5
NPF-OSI	C	$ 1.0	$ 1.3	$ 0.3	$ 3.1		$ 5.7	FY25	$ 35.0
OSI-TSI	D	$ 3.7	$ 4.5	$ 7.2	$ 10.7		$ 26.1	FY26	$ 24.1
	TOTAL	$ 8.3	$ 10.2	$ 8.5	$ 37.0	$ 4.5	$ 68.5		$ 68.5

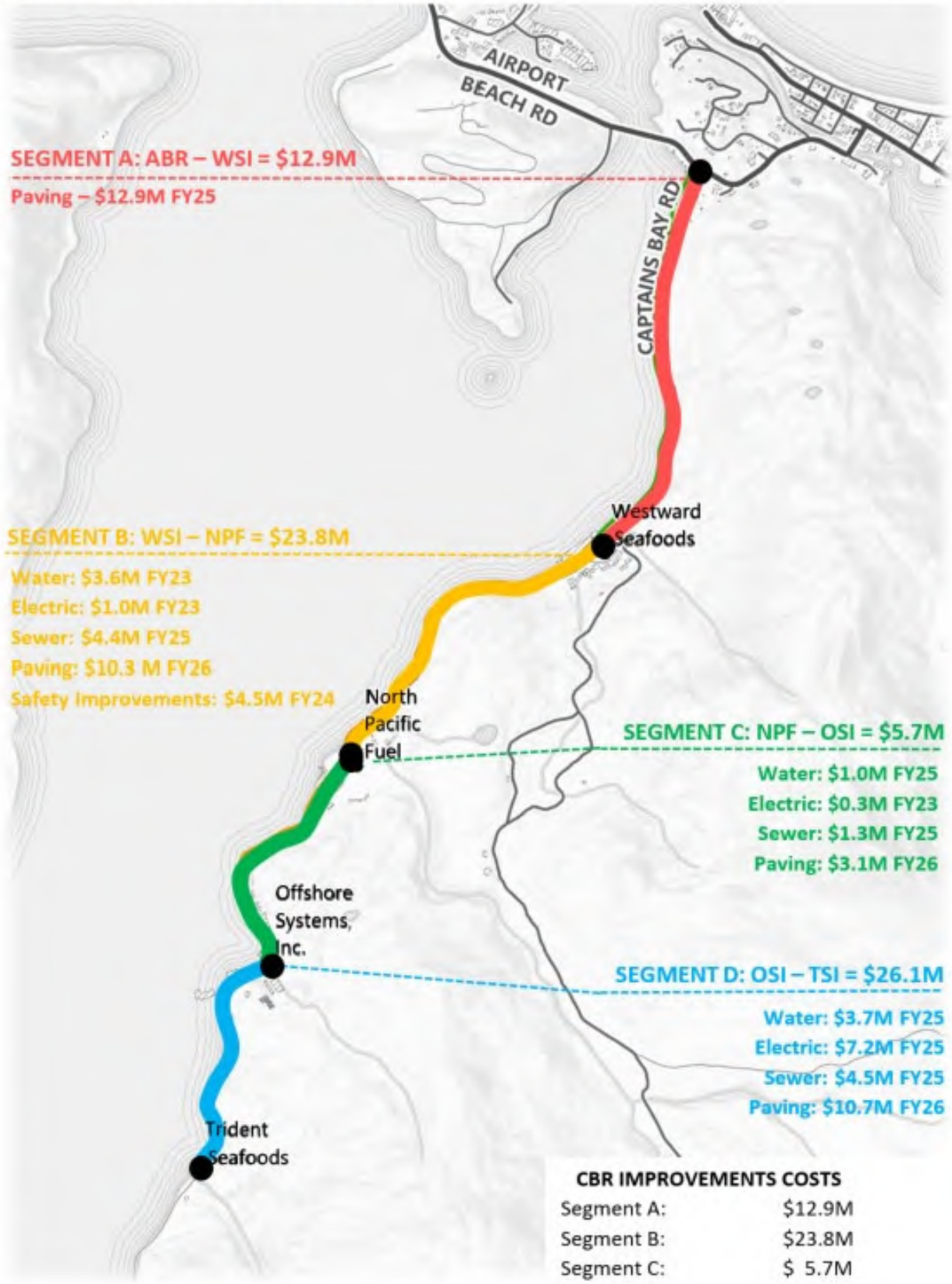
Table prepared by City of Unalaska Engineering Dept.

For comparison purposes, Segments A, B and C represent the previous CMMP projects. These total $42.4M which puts the costs in the middle of past CMMP project estimates. Segment D spans from OSI to the site proposed for a new Trident Seafoods Inc. facility. It was formerly used by Bering Shai Rock & Gravel. The City estimates Segment D's total cost at $26.1M to extend water, sewer, electric and pavement. All four segments of the CBR Corridor Improvement Plan as described herein combine for a total estimated cost of $68.5M in today's dollars.

Table 1 also summarizes the estimated costs for each kind of infrastructure across the four phases. Road paving is the most expensive of the infrastructure at $37M. The other estimates in descending order of estimates are sewer ($10.2M), electric ($8.5M), water ($8.3M) and safety improvements ($4.5M).

Figure 1: Project Costs by Type and Segment illustrates Table 1 using a map. Each segment is a different color and estimates by infrastructure are included with a segment total. Again costs are broken out by water, electric, sewer, paving and safety improvements. Figure 1 is on the following page.

Figure 1: Project Costs by Type & Segment



CBR IMPROVEMENTS COSTS	
Segment A:	$12.9M
Segment B:	$23.8M
Segment C:	$ 5.7M
Segment D:	$26.1M
TOTAL:	**$68.5M**

Figure prepared by City of Unalaska Planning Dept.

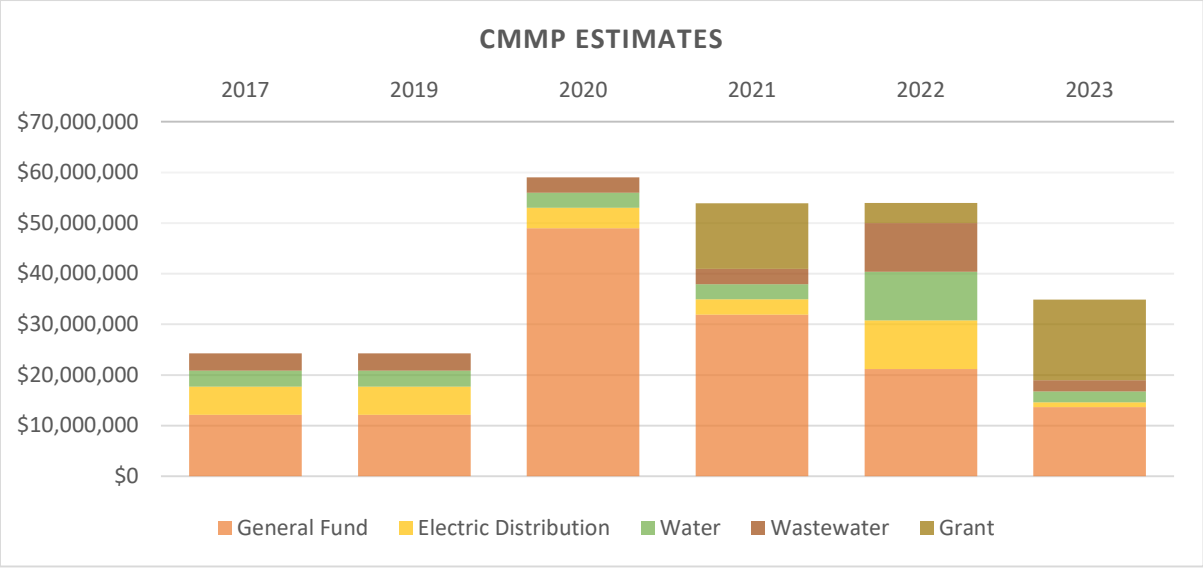
CMMP

In 2016 Unalaska City Council added the CBR improvement project to its FY17-21 Capital & Major Maintenance Plan (CMMP). The plan identifies projects the Council intends to scope over the coming five year time period. Titled "Captains Bay Road & Utility Improvements", the project was estimated to cost $24.3 million to improve two miles of drainage from Airport Beach Road (ABR) to the Crowley Dock; pave one mile of hard surface between ABR and Westward Seafoods, and install one mile of utilities from Westward to Crowley Dock including water, sewer, and electric utility. Half of the project funding was identified to come from the city general fund; the other half was proposed to be divided among three proprietary funds including Electric Distribution, Water and Wastewater.

The CBR project has been on the City's CMMP every year since FY17 with the exception of FY18. As the project has grown and contracted in scope, project estimates have changed accordingly. At its peak the CBR project was estimated to cost $59 million in the FY20 CMMP. The most recent estimate is $34.9 million in the FY23 CMMP. [3] The oscillating estimates are due primarily to a changing scope of work, changes in material and labor costs. The project team also amends design elements in preparation of potential funding applications when sources may or may not pay for part or all of some improvements. Chart 1: CBR Corridor Improvements CMMP Estimates illustrates the estimates by CMMP year and funding source.

Design changes have also been made as cost saving measures. Examples include less cutting into the rock face for roadway straightening; less fill into the bay for roadway alignment; changes to pedestrian ways and amenities such as lighting and signage; and the resulting reduction/increases in roadway and utility line extensions/installations. Past CMMP Project Summary Sheets are included in the Appendix.

Chart 1: CMMP Estimates FY2017 - 2023



[3] The City of Unalaska switched from a 5 to a 10 year CMMP starting in FY22, Unalaska Planning Department

Benefit Cost Analysis

In June, 2022 the City received a Benefit Cost Analysis (BCA) prepared by HDR of Anchorage, Alaska. HDR utilized estimates prepared by HDL Engineering Consultants and estimated costs for roadway realignment; water, sewer and electrical utility extensions; separated pedestrian facilities; and curbs, gutters, and storm drains. The study addressed Dead Man's Curve (including rock fall issues) but it excluded costs for acquiring rights-of-way. The analysis assumed a three (3) year construction period and the period of analysis used to estimate the benefits and costs corresponds to 33 years (including the construction period).

The BCA report analyzed seven development scenarios for Segments A, B and C and are summarized in Table 2: CBR Paving & Utility Extension Project Scenarios. Projects need to score a positive benefit cost ratio (BCR) of 1.0 or higher to compete well for U.S. Department of Transportation (USDOT) discretionary grant funds. Scenario 7 titled 'Basic Roadway Paving' was the only scenario that resulted in a BCR of 1.0 or higher at an estimated cost of $19.7M.

Scenario 1 titled 'Full Design' was estimated to cost $61.2M in 2020 dollars. Scenario 1's analysis resulted in "a benefit-cost ratio (BCR) of less than 1, indicating that the benefits do not exceed costs over the life of the project." [4]

Table 2: CBR Paving & Utility Extension Project Scenarios, 2020 Dollars

Scenario	Scope: Assuming 3-year Construction Program	Segment A Costs	Segment B Costs	Segment C Costs	Total[a]
1. Base Case HDL Full Design	Realignment, utilities extension, separated pedestrian facilities, roadway lighting, Dead Man's Curve rock cut, design speed 45 mph	$30.5 M	$23.7 M	$7.0 M	**$61.2 M**
2. HDL Baseline with Reduced Utilities	Same as Scenario 1, except no sewer to Segments B and C and no water to Segment C	$30.1 M	$21.8 M	$5.5 M	**$57.4 M**
3. Existing Alignment with Reduced Utilities	Maintains current alignment and 30-mph design speed; same utility reductions as in Scenario 2; no rock cuts; separated pathway and roadway lighting included	$16.6 M	$12.1 M	$3.3 M	**$32.1 M**
4. Existing Alignment with Slope Work	Like Scenario 3, with the addition of selective bluff sloping between Dead Man's Curve and Pyramid Creek	$16.6 M	$16.7 M	$3.3 M	**$36.6 M**
5. Combination of Scenarios 2 and 3	Segment A, Scenario 3; Segments B and C, Scenario 2	$16.6 M	$21.8 M	$5.5 M	**$43.9 M**
6. Roadway Paving and Selective Slope Work	Scenario 4, with all utility improvements eliminated; pedestrian pathway and storm drains included	$10.5 M	$11.7 M	$2.0 M	**$24.3 M**
7. Basic Roadway Paving	Scenario 3, excluding water and sewer utilities; pedestrian facilities and storm drains included	$10.5 M	$7.2 M	$2.0 M	**$19.7 M**

Note: M = million
[a] Total costs include design, construction, surveying, construction management, and contingencies.

Table from HDR Report, Summary

[4] HDR, Unalaska Captains Bay Road Paving and Utility Extension Draft Cost-Benefit Analysis, 2022
[5] Ibid

The City also applied to the Denali Commission for a grant to help design the project. In August the City received notice of an award in the amount of $386,400. Details of the award and a grant agreement are still being worked out.

Special Assessment Districts

The City is able to make special assessments to help fund capital improvements. An improvement proposal can be initiated by the City Council or a petition to the City Council by the owners of one-half of the property to be benefited. An assessment district can be created to fund roadway improvements, drainage systems, sewers, water supply systems, and extensions of City-owned electric transmission and distribution systems.

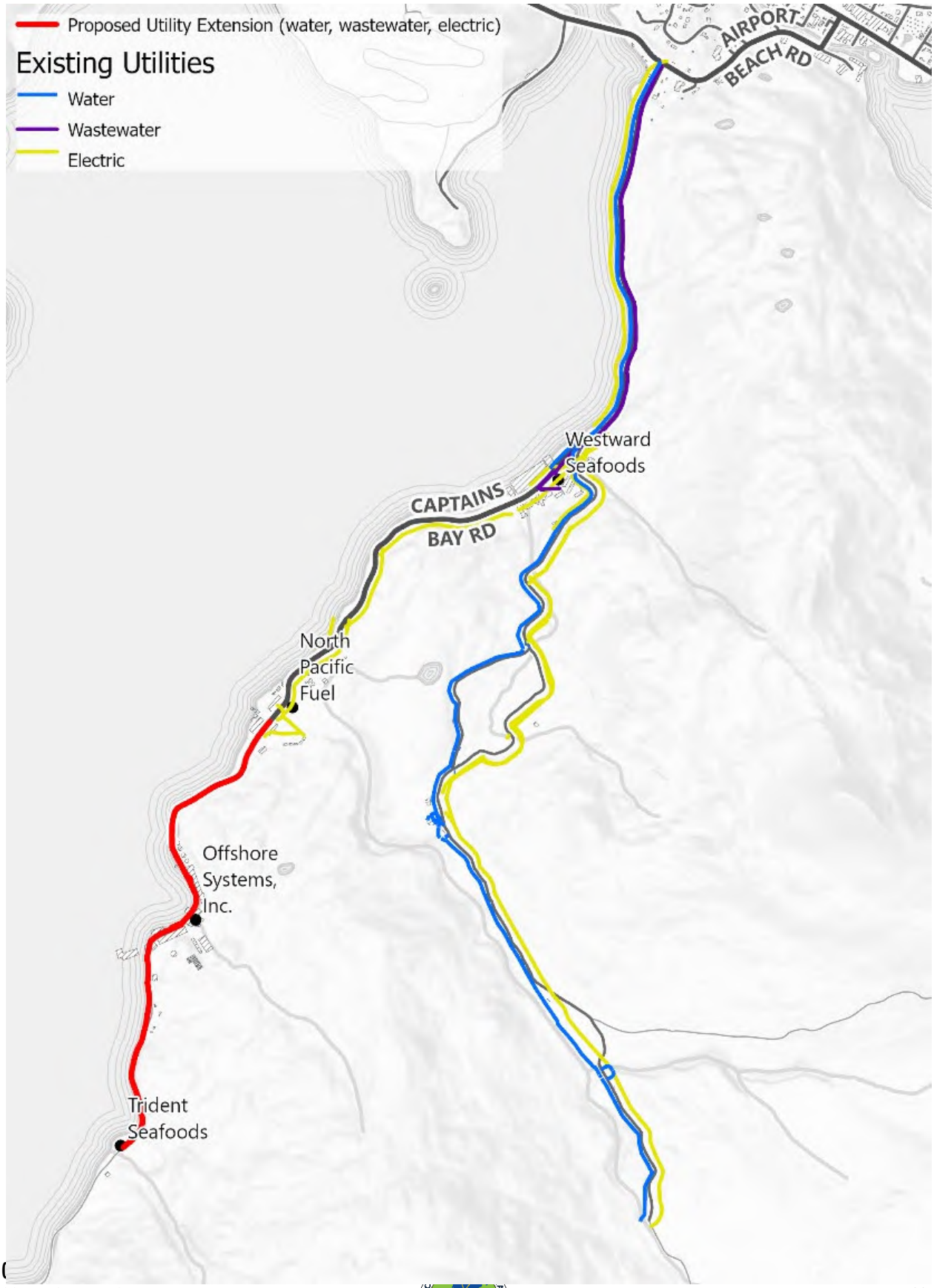
Timeline

Table 3: CBR Corridor Improvement Project Timeline is included below. It shows project in terms of the phases and fiscal year for each segment. Phases 5, 6, 7, 8 and 10 address the proposed Trident project while the others address the original CBR CMMP project. The table's description column shows more details about each phase and its related fiscal year and component.

Table 3: Current CBR Corridor Improvement Project Phasing & Timeline

Phase	FY	Component	Description
1	23	Electrical Extension	from Westward to OSI installing new conduit and vaults on current alignment
2	23	Waterline Extension	Westward to NPF - to replace failing wood stave pipe and allow additional operational capabilities
3	24	Safety Improvements	slope rock on Dead Man's Curve & straighten from Dead Man's Curve to Pyramid Creek (grant dependent)
4	25	Paving Segment A	Airport Beach Road to Westward paving including separated walking path and storm drains (grant dependent)
5	25	Waterline Extension*	*If Trident requires City water, extend water main from NPF to Trident
6	25	Sewer Extension*	*If Trident required City sewer service, extend sewer main from Trident to Westward
7	25	Electrical Extension*	*If Trident requires City electrical service, trench and install new vaults for electrical service
8	25	Electrical Upgrades*	*If Trident requires City electrical service, install upgraded electrical conductor, transformers, etc. from Westward to Trident
9	26	Paving Segment B&C**	**if utility extensions are complete, the proceed to paving Westward to OSI with widened shoulder and storm drainage improvements (grant dependent)
10	26	Paving Segment D***	*** If funding can be secured, paving from Northern boundary of OSI to Trident

Figure 1 Existing Utilities Map



FY23-32 CMMP

Captains Bay Road & Utility Improvements

Public Works

Estimated Project & Purchase Timeline

Pre Design: FY20

Engineering/Design: FY21

Purchase/Construction: FY23

Project Description: This project will provide important safety improvements, construct drainage, utilities, and pavement out Captains Bay Road to the entrance of Offshore Systems, Inc. (OSI). This work will construct approximately 2 .5 miles of drainage improvements from Airport Beach Road to OSI, 0.2 miles of rock cliff sloping and road realignment (Safety Improvements), 2.5 miles of paving/walkways/lighting from Airport Beach Road to OSI, and 1.3 miles of electric utility extensions from Westward Seafood Processors to OSI, and 1 mile of waterline extension from Westward to North Pacific Fuel along Captains Bay Road.

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

Development Plan & Status : In 2017, the City upgraded the electrical service on the first mile of Captains Bay Road to 35 KV from Airport Beach Road to Westward Seafoods. An additional 2 miles of upgrades are required to extend the 35 KV to Offshore Systems, Inc. This final section of the electrical service line is 30 years old and is at its maximum capacity. This project will replace the 15 KV primary electrical line with 2 miles of 35 KV primary electrical line from Westw3ard Seafoods to Offshore Systems, Inc.

Captains Bay Road currently has water and sewer line services from the intersection of Airport Beach Road to Westward Seafoods, a distance of one mile. This project will install a new waterline from Westward Seafoods to North Pacific Fuel to replace the old, failing wood-stave waterline.

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

Cost Assumptions

Engineering, Design, Const Admin	2,966,147
Other Professional Services	2,966,147
Construction Services	23,729,179
Machinery & Equipment	
Subtotal	29,661,474
Contingency (15%)	5,234,378
TOTAL	**34,895,851**

Captains Bay Road and Utilities

Source	Appropriated	FY23	FY24	FY25	FY26	FY27	FY28	Total
General Fund	2,000,000	564,556	6,052,582	5,012,551				13,629,689
Grant - CAPSIS		4,000,000						4,000,000
Grant - ARPA			894,688					894,688
Grant - STIP			6,052,582	5,012,551				11,065,133
Electric Capital Fund	972,277							972,277
Electric Proprietary Fund			2,161,823					2,161,823
Water Proprietary Fund			2,172,242					2,172,242
Total	2,972,277	4,564,556	17,333,917	10,025,102				34,895,852

FY22-31 CMMP

Captains Bay Road & Utility Improvements

Public Works

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

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

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

Estimated Project & Purchase Timeline
Pre Design: FY20
Engineering/Design: FY21
Purchase/Construction: FY23

Captains Bay Road and Utilities

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

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

FY21-25 CMMP

CAPTAINS BAY ROAD & UTILITY IMPROVEMENTS| DPW

PW19A | CAPITAL PROJECT

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 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 Admin		5,370,000
Other Professional Services		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 Sources (Grants, etc)		
	Total Funding Request	**53,911,000**

ESTIMATED PROJECT & PURCHASE TIMELINE
Pre Design: FY 2020
Engineering/Design: FY 2021
Purchase/Construction: FY 2022

Captains Bay Road and Utilities

REVENUE SOURCE	APPROPRIATED FUNDS	FISCAL YEAR FUNDING REQUESTS					
		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:							

FY20-24 CMMP

Captains Bay Rd & Utility Improvements| DPW / DPU

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, 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. In September 2011 residents and industry representatives discussed the hazards at public meetings about the Road Improvement Master Plan. Although the road's high crown is needed for adequate drainage, it also creates a safety hazard for the large trucks and school buses traveling the road. The public expressed strong support for improvements to Captains 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): Preliminary cost estimates have been provided by HDL Engineering and Regan Engineering based on recent materials and construction costs in Unalaska. These are still very rough estimates that will be refined as the project commencement approaches. Costs are split between the General Fund for the paving and drainage portion and the three utility funds based on the costs for each of those portions. Predesign and Permitting started in FY19 helped define scope, the road realignment, utility needs, and permitting requirements. An aggressive schedule has full design, permitting and ROW realignments concluded during FY20-FY21 with construction spread over 2.5 seasons from FY22-FY24.

Cost & Financing Data: HDL Engineering provided a preliminary cost estimate to City Council in February 2019. City Council supported proceeding with full design using the general fund. In the mean time, the City Manager and DPW are investigating funding sources for full construction, such as the STIP and BUILD grant programs.

Estimated Project & Purchase Timeline
Pre Design: FY 2019
Engineering/Design: FY 2020
Purchase/Construction: FY 2022 & 2024

Captains Bay Road and Utilities

Cost Assumptions	
Engineering, Design, Const Admin	4,238,461
Other Professional Services	300,000
Construction Services	40,846,154
Machinery & Equipment	-
Subtotal	**45,384,615**
Contingency (set at 30%)	13,615,385
TOTAL	**59,000,000**
Less Other Funding Sources (Grants, etc.)	-
Total Funding Request $	**59,000,000**

Revenue Source	Appropriated Funds	Fiscal Year Funding Requests					
		FY20	FY21	FY22	FY23	FY24	Total
General Fund (DEPT)	1,250,000	750,000		22,000,000		25,000,000	49,000,000
1% Sales Tax							-
Grant							-
Proprietary Fund				10,000,000			10,000,000
TOTALS $	1,250,000	750,000	-	32,000,000	-	25,000,000	59,000,000
Requested Funds:							

FY19-23 CMMP

CAPTAINS BAY ROAD & UTILITY IMPROVEMENTS | GENERAL FUND

PROJECT DESCRIPTION: This project will construct drainage, utilities, and pavement out Captains Bay Road to the vicinity of the North Pacific Fuel operations (former Crowley dock). This will involve approximately 2 miles of drainage improvements from Airport Beach Road to North Pacific Fuel (NPF), 1 mile of paving from Airport Beach Road to Westward, and 1 mile of water/sewer/electric utility extensions from Westward to NPF. For the electric utility, this will be an extension of the FY17 project to upgrade electric service to Westward.

PROJECT NEED: Captains Bay Road serves as a primary transportation route for Westward Seafoods, 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. In September 2011 residents and industry representatives discussed the hazards at public meetings about the Road Improvement Master Plan. Although the road's high crown is needed for adequate drainage, it also creates a safety hazard for the large trucks and school buses traveling the road. The public expressed strong support for improvements to Captains Bay Road. The area of Captains Bay Road is also an area of potential growth in the community as identified in the Comprehensive Plan.

COST AND MAINTENANCE: 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 split between the General Fund for the paving and drainage portion and the three utility funds based on the costs for each of those portions. Predesign and Permitting starting in FY19 will help define scope, evaluate road realignment, and determine permitting needs.

Cost Assumptions

Predesign and Permitting		250,000
Engineering Services		2,250,000
Other Professional Services		300,000
Machinery and Equipment		TBD
Construction Services		16,000,000
	Subtotal	18,800,000
Contingency		5,500,000
	Total $	**24,300,000**

ESTIMATED PROJECT & PURCHASE TIMELINE
Pre Design: FY 2019
Engineering/Design: FY 2021
Purchase/Construction: FY 2022

Captains Bay Road and Utilities

REVENUE SOURCE	APPROPRIATED FUNDS	FISCAL YEAR FUNDING REQUESTS					
		FY19	FY20	FY21	FY22	FY23	Total
General Fund		250,000	500,000		11,400,000		12,150,000
Proprietary Fund (Electric-Distribution)				250,000	5,300,000		5,550,000
Proprietary Fund (Water)				250,000	2,900,000		3,150,000
Proprietary Fund (Wastewater)				250,000	3,200,000		3,450,000
TOTALS $		250,000	500,000	750,000	22,800,000		24,300,000

Requested Funds: Engineering and Construction Services

FY17-21 CMMP

CAPTAINS BAY ROAD & UTILITY IMPROVEMENTS | GENERAL FUND

PROJECT DESCRIPTION: This project will construct paved road, drainage, and utilities down Captains Bay Road to the vicinity of the Crowley dock. This will involve approximately 2 miles of drainage improvements from Airport Beach Road to Crowley, 1 mile of paving from Airport Beach Road to Westward, and 1 mile of water/sewer/electric utility extensions from Westward to Crowley. For the electric utility, this will be an extension of the FY17 project to upgrade electric service to Westward.

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.

COST AND MAINTENANCE: 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 split between the General Fund for the paving and drainage portion and the three utility funds based on the costs for each of those portions.

ESTIMATED PROJECT & PURCHASE TIMELINE
Inception/Concept: n/a
Pre Design: n/a
Engineering/Design: FY 2020
Construction: FY 2021

Captains Bay Road and Utilities

REVENUE SOURCE	EXISTING FUNDS	FISCAL YEAR FUNDING REQUESTS					
		FY17	FY18	FY19	FY20	FY21	Total
General Fund					$ 750,000	$ 11,400,000	$ 12,150,000
Proprietary Fund (Electric-Distribution)					$ 250,000	$ 5,300,000	$ 5,550,000
Proprietary Fund (Water)					$ 250,000	$ 2,900,000	$ 3,150,000
Proprietary Fund (Wastewater)					$ 250,000	$ 3,200,000	$ 3,450,000
TOTALS					$ 1,500,000	$ 22,800,000	$ 24,300,000

Requested Funds: Engineering and Construction Services

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Marjie Veeder, City Clerk; Updated by Chris Hladick, Interim City Manager
Through: Erin Reinders, City Manager
Date: January 25, 2022; Updated on November 3, 2022
Re: Funding Request for Memorial to Fishermen of Unalaska

CURRENT SUMMARY: The Mayor and I met with Marie and Karel Machalek to discuss the Fisherman Memorial and the fact that the council had not taken formal action to fund the project back in January 2022, but had spoken positively about it. Council last discussed this topic at their meeting on January 25, 2022. The Mayor requested that this item be placed on a workshop for November 10, 2022 to allow Karel and Marie to give an update on the project. I believe many of the questions below will be answered. Staff, the Mayor, and Marie and Karel agree that the area to the South of CEM, just beyond the boat ramp, may be a perfect spot for the memorial. If the council wishes to proceed with a donation to the memorial, a resolution would be placed on the agenda for November 22nd. It sounds like a donation of $250,000 was discussed in January, but nothing was finalized.

The rest of this memo is the original memo from the January 25, 2022 meeting.

PREVIOUS SUMMARY FROM JANUARY: Mr. Karel Machalek has proposed a memorial to the fishermen of Unalaska, in the form of a life-size public art piece which he has designed and will construct. Mr. Machalek is requesting city-owned land on which to place the memorial as well as a financial contribution from the City of Unalaska.

PREVIOUS COUNCIL ACTION: Council has taken no action on this request. On September 14, 2021, Council heard a presentation from Mr. Machalek about the proposed memorial. Mr. Machalek also left a model of the memorial at City Hall for several months for perusal by Council and the public.

DISCUSSION: Mr. Machalek provided an updated brochure about the project as well as a report on the status of the memorial, copies of which are included with this memo. Mr. Machalek is available this evening to respond to Council questions.

Council may consider inquiring about the following questions:

- Itemization of total cost of the memorial ($500,000).
- What funding amounts have been committed by other contributors?
- Installation: Is the assistance of the City to install the memorial anticipated? What ground work and preparation will be needed?
- Electrical: Will lighting be installed to illuminate the memorial, or to power the lights built into the memorial?

- Maintenance: The documents provided indicate maintenance will include hosing and brushing of the memorial. Is the assumption that the City will provide this maintenance if placed on city property? What about repairs due to vandalism?
- Ownership/Insurance: Will the City of Unalaska own the memorial if placed on City land? Should it be insured?
- Who will be trustee of the trust account for the memorial?

ALTERNATIVES: Council must decide whether to support the memorial, both in providing a location on city-owned property and/or any financial support. Consideration must be given to the fiscal year to include any funding, as well as what sort of ongoing support might been needed and provided. Council might consider matching other financial contributions to the project up to a certain level. Finally, The Rusting Man Foundation is reportedly a 501(c)(3) nonprofit organization, so funding under the Community Support Grant program may be a desirable alternative.

If Council decides to proceed, a written agreement with the artist should be considered.

FINANCIAL IMPLICATIONS: The proposal indicates a full cost of $500,000, which has increased $50,000 since September 2021, along with a request to the City for $350,000 (70% of the total).

Council's remaining budget for the present fiscal year is itemized as follows:

ORG	OBJ	DESCRIPTION	BUDGETED	YTD EXPENDED ENCUMBERED	AVAILABLE	% USED
01020152	53260	Training Services	$ 6,000	$ 1,200	$ 4,800	20.00
01020152	53300	Other Professional Svs	$ 150,000	$ 147,000	$ 3,000	98.00
01020152	55310	Telephone / Fax/ TV	$ 2,400	$ 1,537	$ 863	64.02
01020152	55902	Printing and Binding	$ 1,300	$ 1,214	$ 87	93.30
01020152	55903	Travel and Related Costs	$ 87,200	$ 21,531	$ 65,669	24.69
01020152	55906	Membership Dues	$ 10,750	$ 10,103	$ 647	94.00
01020152	55999	Other	$ 2,250	$ 297	$ 1,953	13.20
01020152	56100	General Supplies	$ 70,048	$ 41,183	$ 28,865	58.79
01020152	56120	Office Supplies	$ 500	$ -	$ 500	0.00
01020152	56310	Food/Bev/Related for Programs	$ 500	$ -	$ 500	0.00
01020152	56320	Business Meals	$ 19,000	$ -	$ 19,000	0.00
01020152	56330	Food/Bev/Related Emp Apprctn	$ 1,000	$ 172	$ 828	17.20
01020152	56400	Books and Periodicals	$ 500	$ -	$ 500	0.00
01020152	58498	Council Sponsorships Contngncy	$ 20,000	$ 6,550	$ 13,450	32.75
01020152	58499	Council Sponsorships - Planned	$ 50,500	$ 17,084	$ 33,416	33.80
			$ 421,948	$ 247,871	$ 174,077	59%

LEGAL: Not needed at this point, but the city attorney's review of any proposed agreement will be in order.

STAFF RECOMMENDATION: Staff makes no recommendation.

PROPOSED MOTION: None. We look for direction from Council on how they wish to proceed.

CITY MANAGER COMMENTS: Ultimately, it is Council's decision to grant this request or not. This memo outlines several other questions that also need to be addressed and should be formalized in an agreement that is approved by Council.

ATTACHMENTS: Mr. Machalek's report on the progress of the project and funding request, along with a brochure about the memorial.

Karel Machalek
P.O. Box 920605
Dutch Harbor, AK 99692
907-581-4107 / 907-359-7785

January 19, 2022

Mayor and City Council
City of Unalaska
54 Raven Way
Unalaska, AK 99685

RE: Memorial to the Fishermen of Unalaska - Art Installation Proposal

Dear Mr. Mayor and City Council Members:

As a follow-up to our last discussion regarding the life-sized Memorial to the Fishermen of Unalaska that I'm proposing to construct, I want to update you on progress to date.

Tax-Exempt Status
The Rusting Man Foundation was formed and incorporated as a 501(C)3 non-profit organization on October 14, 2021 with ID# 10177784. Contributions are tax-deductible.

Fund Raising
Funds are being raised from a wide variety of organizations, businesses, and individuals to help reach the $500,000 goal (all-inclusive of materials, labor, shipping, and installation). To date, the following entities have expressed strong support and financial commitment in various amounts:

- Unalaska Fisherman's Association (UNFA)
- UniSea
- Westward Seafoods
- Alyeska Seafoods
- Trident Seafoods
- B & N Fisheries
- Off Shore Systems, Inc (OSI)
- BKR Construction
- Ounalashka Corporation (OC)
- Aleutian Chiropractic
- Rasmusen Foundation
- Lynden Transport
- Original Productions / Deadliest Catch

Key Bank is the agent who will hold funds for this project in a Trust Account. All monies donated will be held in trust for the sole purpose of seeing this project to completion. The assigned Trustee will ensure transparency by providing quarterly Trust Account Statements.

Land Designation Request

As a tangible and permanent way to commemorate the lives of so many fishermen no longer with us and to honor their contribution to our community, I am proposing to construct a life-sized memorial to be erected on public property in Unalaska. Would the City be willing to designate a 50' x 50' area at Carl E. Moses Boat Harbor for this purpose?

Financial Support Request

Your support for this project will demonstrate the City of Unalaska's recognition of fishermen's key role in building and sustaining our community. Would the City be willing to contribute $350,000?

Thank you for considering this request to place the memorial on city property and the request for a financial contribution in the form of a match to other contributions to make this Memorial to the Fishermen of Unalaska become a reality

Regards,

Karel Machalek

PROPOSAL by Karel Machalek

Fishermen Memorial

for the Port of Dutch Harbor

To honor the Bering Sea
fishermen lost to the sea

This is a proposal to construct a life-sized Fishermen Memorial to be erected within the City of Unalaska. This piece will honor the lives lost harvesting the bounty of the Bering Sea.

Gone but never forgotten, our fishermen live on in legends as well as in the hearts and minds of family and friends still among us. Unlike many fishing communities, Unalaska does not have a memorial to our fishermen. This memorial will provide a tangible and permanent way to commemorate the lives of so many fishermen no longer with us and honor their contributions to our community.

A LIFE-SIZED INSTALLATION

The exterior piece represents a long-liner fisherman, a crab fisherman, and a cod fisherman. The base will be 5' high, octagon shaped, constructed of a stainless steel frame adorned with stainless steel sea life figures. The three fishermen will be cast in bronze. The deck will be made of cedar planks simulating the slightly tilted deck of a ship. The detailed cabling, nets, gaff hook, crab pot, and clothing lend authenticity to the piece. The mast will have lights and an antenna to complete the feel of a ship at work.

LOCATION

The proposed location is yet to be determined but some have suggested Memorial Park or Carl E. Moses Boat Harbor would provide an appropriate setting.

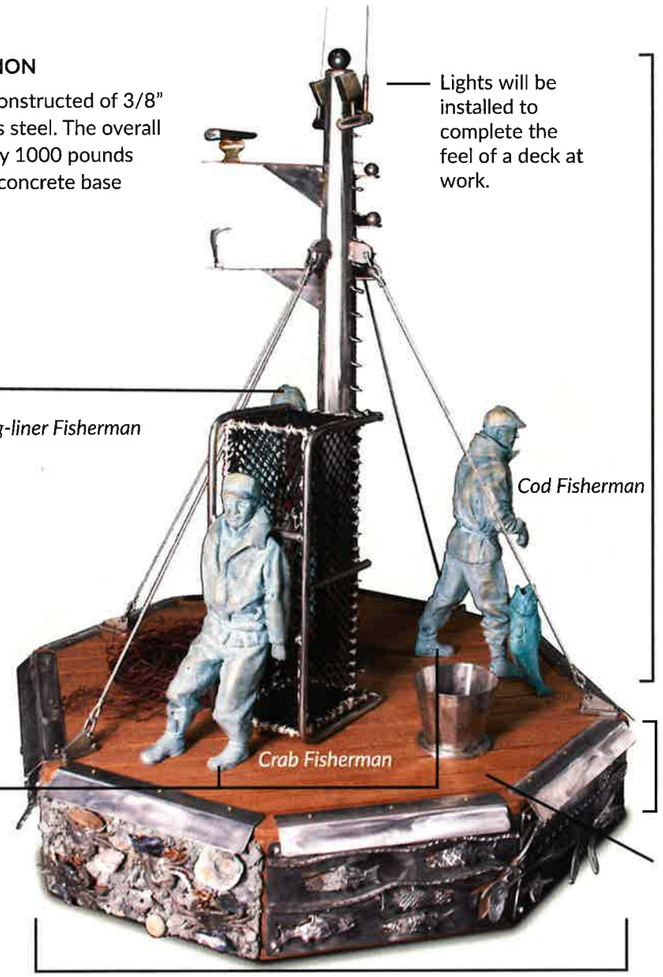
Prototype of proposed Fishermen Memorial

This is a miniature sized model as an example.

METHODS OF INSTALLATION

This exterior piece will be constructed of 3/8" mild steel and 1/8" stainless steel. The overall weight will be approximately 1000 pounds and securely anchored in a concrete base flush to the ground.

Long-liner Fisherman



HEIGHT
25 feet high

BASE
5 feet high

DECK
The deck will be made of Apitong planks simulating the slightly tilted deck of a ship.

WIDTH 20 feet diameter

BRONZE CAST

The three fishermen will be cast in bronze.

Typically bronze oxidizes only superficially; once a copper oxide layer is formed, the underlying metal is protected from further corrosion.

BASE

The octagon shaped base will be constructed of concrete, and wrapped with stainless steel sea life figures.

CARE & MAINTENANCE

No maintenance is required. The mild steel will naturally oxidize to maintain its brownish hue while the stainless steel requires no maintenance and will retain its light colored appearance. Should storm events cause debris to remain on the installation, simple hosing with water or lightly brushing will easily restore the piece.

MATERIALS AND TRADES

This life-sized installation will require a variety of materials and talent to construct. Mold making, bronze casting, stainless steel fabrication, wood working, and site work are all specialty fields. This is truly a collaborative effort. Detailed work takes hours and hours to accurately coordinate the precise scale of each component to blend seamlessly into a single piece of artwork. We anticipate some trades people's time will be provided as in-kind donations while most other time will be a project expense.

Materials will be carefully selected and procured on island to the largest extent possible.

Welding and fabrication will take place in Unalaska.

Wood will be hand selected for optimum grain and durability.

Stainless steel sea creatures will appear to be swimming around the memorial and visible on all sides.

The fishermen will be cast in bronze off-island and shipped to Unalaska.

While the bronze is being cast, work on the mast, lights, cabling, crab pot, and finishes will be performed. After the above mentioned work is complete, site work will take place followed by installation of the memorial.

FUNDRAISING

BUSINESSES: Efforts have already begun to contact local businesses and organizations to garner financial support. Trade unions, fish processors, industry support businesses and fishing fleets are on the contact list.

INDIVIDUALS: Participation by residents and non-residents is being sought out.

TRUST ACCOUNT: Key Bank is the agent holding funds for this project. All monies donated will be held in trust for the sole purpose of seeing this project to completion.

TIME LINE

MEMORIAL: Names of vessels/lives lost will be displayed on the memorial using plaques and other creative ways.

DONORS: Names will be displayed on the memorial.

Contact us for more information on how to contribute.

Karel Machalek was born and raised in former Czechoslovakia (now the Czech Republic), where he learned to weld and built his expertise working as a tradesman. In 1979, Karel immigrated to the United States, initially landing in Los Angeles, CA. Karel found his way to Unalaska, AK in 1985, where he took a welding position with Magone Marine, Inc. until establishing his own welding company, Alpha Welding, Inc., in 1990.

Karel's lifelong interest in shape and form have led him to experiment with a variety of artistic projects and collaborations throughout the years. His body of work is diverse, spanning from a series of mixed-media art pieces with local Unalaska artist Mike Rasmussen in 1993, to the composition of four music albums released between 2009-2015. As a welder, his natural interest and talent with metal work eventually led to a year-long metal art exhibition at the Museum of the Aleutians in 2005.

Karel Machalek currently spends his days at his metal art studio in Unalaska, AK, dreaming up new creations and means of highlighting the intrigue and wonder in the world around him.

Karel and his brother Petr erected a large 7,500 lb "Cube Meteor" installation in front of the Norwegian Rat Saloon in 2015. This location also displayed three of Karel's metal sculptures inside the building from 2016-2019.

In 2018 Karel installed a 6' metal sculpture entitled "Starving Halibut" in the lobby of the Grand Aleutian Hotel.

In 2013 Karel Machalek was commissioned to create 16 sculptural covers for bollards (vertical pipe embedded in the ground to protect electrical transformers) at the Carl E. Moses Boat Harbor. Like much of Karel's work, these bollard covers merge form with function, paying homage to the primary industry that supports Dutch Harbor by depicting some of the iconic sea life familiar to all who call the island home.

ALEUTIAN SOFT METALS

KAREL MACHALEK

karelmachalekart.com

To donate, or be a part of this project, please contact:

Marie Machalek: 907.359.5049
Karel Machalek: 907.359.7785
Landline: 907.581.4107

mariemach2005@gmail.com

CITY OF UNALASKA
UNALASKA, ALASKA

ORDINANCE 2022-18

AN ORDINANCE OF THE UNALASKA CITY COUNCIL AMENDING UNALASKA MUNICIPAL CODE TITLE 17 BY ADOPTING PORTIONS OF THE 2018 EDITION OF THE UNIFORM PLUMBING CODE, THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE AND THE 2021 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE

BE IT ENACTED BY THE CITY COUNICL OF THE CITY OF UNALASKA, as follows:

Section 1: Classification. This Ordinance is a Code Ordinance.

Section 2: Amendment of Section 17.04.020. Section 17.04.020 of the Unalaska Code of Ordinances is hereby amended to read as follows: [additions are **bold underlined**, deletions are ~~overstruck~~]

§ 17.04.020 POWERS AND DUTIES.

(A) The Building Official shall have power to issue all building~~, electrical, and plumbing~~ permits as they may be required and shall have all other powers and duties prescribed for ~~him~~ **them** by this title, and any building or fire code adopted by the city. The powers and duties of a Building Official may also be performed by authorized representatives of the Building Official and under ~~his~~ **their** supervision and control~~. Such authorized representatives may bear such titles as electrical inspector, plumbing inspector, and other titles appropriate to their assigned powers and duties.~~

(B) The City Council may by ordinance establish a schedule of fees for permits required by this title. Until the applicable permit fee is paid in full, no action shall be taken on a permit application.

Section 3: Amendment of Section 17.16.010. Section 17.16.010 of the Unalaska Code of Ordinances is hereby amended to read as follows: [additions are **bold underlined**, deletions are ~~overstruck~~]

§ 17.16.010 UNIFORM PLUMBING CODE AND OTHER PLUMBING STANDARDS.

(A) The ~~most current~~ **2018** edition of the Uniform Plumbing Code **sections 101.0 — 103.2, 103.4, 105.0 — 105.2.2, and 105.3 — 106.6 of chapter 1, chapters 2 — 10, chapter 11 excluding the requirements of section 1101.5, chapters 12 — 17, and appendices A — L** published by the International Conference of Building Officials and the International Association of Plumbing and Mechanical Officials shall regulate the design, erection, installation, alteration, addition, repair, relocation, replacement, maintenance or use of any plumbing system in the City of Unalaska **with the following revisions and exceptions:** ~~, except those structures covered by the CABO and One and Two Family Dwelling Code (See § 17.28.010).~~

(1) Exception: All buildings and structures in the City that are included within the International Residential Codes as adopted by Chapter 17.28.

(2) Exception: The installation of fuel gas distribution piping and equipment, fuel-gas-fired water heaters and water heater venting systems shall be regulated by the 2012 edition of the International Fuel Gas Code as adopted by 13 AAC 50.024.

(3) Revision: Section 1210.2.3 (prohibited locations), of the 2018 Uniform Plumbing Code is amended by adding section 1210.2.3.1 to read: "1210.2.3.1. Liquefied petroleum gas piping may not serve any gas fired appliance located in a pit or basement where heavier than air gas might collect to form a flammable mixture."

(B) Uniform Swimming Pool, Spa and Hot Tub Code, 2018 edition, sections 101.0 — 103.2, 103.4, 105.3 — 106.6, chapters 2 — 10, and appendices A — C, published by the International Conference of Building Officials and the International Association of Plumbing and Mechanical Officials shall regulate the design, erection, installation, alteration, addition, repair, relocation, replacement, maintenance or use of any swimming pool, spa, or hot tub system in the City of Unalaska

(C) Uniform Solar, Hydronics and Geothermal Code, 2018 edition, sections 101.0 — 103.2, 103.4, 105.2 — 105.2.2, 105.3 — 106.6, chapters 2 — 12, and appendices A — C, published by the International Conference of Building Officials and the International Association of Plumbing and Mechanical Officials shall regulate the design, erection, installation, alteration, addition, repair, relocation, replacement, maintenance or use of any solar, hydronics or geothermal system in the City of Unalaska

Section 4: Amendment of Section 17.20.010. Section 17.20.010 of the Unalaska Code of Ordinances is hereby amended to read as follows: [additions are **bold underlined**, deletions are ~~overstruck~~]

§ 17.20.010 NFPA 70 NATIONAL ELECTRICAL CODE.

The ~~most current~~ **2020** edition of ***NFPA 70*** the National Electrical Code published by the National Fire Protection Association shall regulate the design, construction, installation, alteration, addition, repair, relocation, replacement, maintenance, or use of any electrical conductors**, raceways, signaling and communication conductors, optical fibers** and equipment within the City of Unalaska for the following: ~~except those structures covered by the CABO One and Two Family Dwelling Code (See § 17.28.010).~~

(1) Public and private premises, including buildings, structures, mobile homes, recreational vehicles and floating buildings.

(2) Yards, lots, parking lots, carnivals, and industrial substations.

(3) Installations of conductors and equipment that connect to the supply of electricity

(4) Installations used by the electric utility, such as office buildings, warehouses, garages, machine shops, and recreational buildings, that are not an integral part of the generating plant, substation, or control center.

(5) Installations supplying shore power to ships and watercraft in marinas and boatyards, including monitoring of leakage current.

(6) Installations used to export electric power from vehicles to premises wiring or for bidirectional current flow.

Section 5: Amendment of Section 17.28.010. Section 17.28.010 of the Unalaska Code of Ordinances is hereby amended to read as follows: [additions are **bold underlined**, deletions are ~~overstruck~~]

§ 17.28.010 INTERNATIONAL RESIDENTIAL ~~CABO ONE AND TWO FAMILY DWELLING~~ CODE.

(A) The ~~most current~~ **2021** edition of the **International Residential** ~~CABO One and Two Family Dwelling~~ Code published by the International **Code Council** ~~Conference of Building Officials~~ **Chapters 1 through 24, and chapters 33 and 44 including appendices AE, AH, AI, AJ, AK, AM and AQ, AU, with the Amendments as specified in this section and in Chapter 17.28.020,** shall ~~regulate~~ **apply to** the design, erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of **detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height** ~~all buildings and structures included within its guidelines~~ in the City of Unalaska.

(B) The version of the International Residential Code applicable as the residential building code for buildings used for residential purposes containing four or fewer dwelling units shall be determined by the date construction began, as determined by the date the foundation began installation.

(C) The 2020 edition of ICC 600 Standard for Residential Construction in High Wind Regions shall apply to the design, erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of conventional light-frame construction of IRC Section 301.

Section 6: Amendment of Section 17.28.020. Section 17.28.020 of the Unalaska Code of Ordinances is hereby amended to read as follows: [additions are **bold underlined**, deletions are ~~overstruck~~]

§ 17.28.020 INTERNATIONAL RESIDENTIAL CODE REVISIONS

The following revisions are made to the IRC as adopted by reference in Sections 17.28.010:

(1) Amend each and all the references contained in the IRC which refer to the "International Building Code" by replacing each and all with "Building Code as adopted by Chapter 17.12.010

(2) Amend each and all the references contained in the IRC which refer to the “ICC Electrical Code” by replacing each and all with “NFPA 70, National Electrical Code” as adopted by Chapter 17.20.010

(3) Amend each and all the references contained in the IRC which refer to the “International Plumbing Code” by replacing each and all with “Uniform Plumbing Code” as adopted by Chapter 17.16.010

(4) Excluded from adoption are sections R103, R104.4, R106.3.1, R109, R110, R112, R313, and Chapters 15 – 32 and 34 – 43; and Appendices AA – AD, AF, AG, AL, AN – AP, AR - AS, and AV - AX.

(5) R101.1- Insert "City of Unalaska" for [NAME OF JURISDICTION]

(6) R101.2- Exclude Exception 2

(7) R105.3- Amend to read: "To obtain a *permit*, the applicant shall first file an application therefor in writing on a form furnished by the City for that purpose and by meeting other guidelines published by the Unalaska Department of Public Works and Department of Public Utilities."

(8) R108.6- Insert the following at the end of the paragraph: "This fee shall be the same as the building permit fee."

(9) R301- Conventional light-frame construction as detailed in this Section does not apply in Unalaska due to basic 3-second gust wind speed in excess of 110-miles per hour. Amend this Section by replacing all light-frame standards with the standards found in *ICC 600 Standard for Residential Construction in High Wind Regions (2020 Edition)*.

(10) R301.2(1)- Add the following information in the table:

Ground snow load	**60 PSF**
Wind Speed (3 second gust basic)	**165 mph**
Seismic Design Category	**D2**
Subject to damage from:	
Weathering	**Yes, severe**
Frost Line Depth	**48″**
Termite	**No**
Winter Design Temperature	**-10 degrees F**
Flood Hazards	**No**
Ice shield underlayment required	**Yes**
Air freezing index	**2500**
Mean annual temperature	**35 degrees F**

Section 7: Effective Date. This ordinance is effective upon passage.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on November 10, 2022.

_____
Mayor Pro Tem

ATTEST:

_____
Marjie Veeder, CMC
City Clerk

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Tom Cohenour, Director of Public Works
Bob Cummings, City Engineer
Through: Chris Hladick, Interim City Manager
Date: October 11, 2022
Re: Ordinance 2022-18: Amending Sections of Title 17, Buildings and Construction, of the Unalaska Code of Ordinances, by Adopting Portions of the 2018 Edition of the Uniform Plumbing Code, the 2020 Edition of the National Electrical Code, and the 2021 Edition of the International Residential Code

SUMMARY: Ordinance 2022-18 allows for revisions of several sections of the Unalaska Code of Ordinances, specifically §17.04.020 POWERS AND DUTIES, §17.16.010 UNIFORM PLUMBING CODE, §17-20-010 NATIONAL ELECTRICAL CODE, and §17.28.010 CABO ONE AND TWO FAMILY DWELLING CODE, and adds a new section entitled §17-28-020 INTERNATIONAL RESIDENTIAL CODE REVISIONS. These proposed revisions update Title 17 to nationally accepted standards by removing outdated building code references, and revises certain sections of the International Residential Code to allow for Unalaska's unique building environment.

PREVIOUS COUNCIL ACTION: Ordinance 2016-02, passed February 23, 2016, amended §17.04.030 to add paragraph (B) which adopted penalties for failure to obtain any permit required by Title 17. Additionally, §17.16.010, §17.20.010, and §17.28.010 have not been amended since originally adopted by the City Council of the City of Unalaska which occurred sometime in the 1980's.

BACKGROUND: The Unalaska Code of Ordinances is a living document which requires regular modifications to ensure it reflects the environment in which the City operates. The proposed updates have been discussed for several years and are now brought forth for Council's consideration.

DISCUSSION: The last four decades have seen tremendous growth in the number of commercial buildings and single and multi-family residences in Unalaska. National standards related to building and construction policy and codes have changed considerably in this time, however, Title 17 has not undergone a full review and revision since its original adoption. The proposed changes to Title 17 will update City Code with modern building codes and include specific design parameters tailored to our local conditions. The Plumbing Code and Electrical Codes (§17.16.010 & §17.20.010, respectively) are modified to align with the State of Alaska as adopted in Title 13 of the Alaska Administrative Code. The Residential Building Code (§17.28.010) adopts the most recent version published by the International Code Council.

ALTERNATIVES: The other option would be to remove the Residential Building Code (§17.28.010) and have no building standards for residential structures but continue to have commercial buildings governed by §17.12.010 and have plans reviewed by the State Fire Marshal.

FINANCIAL IMPLICATIONS: There are no concrete financial implications tied to adopting Ordinance 2022-18.

LEGAL: The proposed revisions to Title 17 are overdue. By continuing to reference outdated building codes, the City is potentially placing itself at risk. Staff has worked with the City Attorney's office in drafting the proposed revisions to Title 17.

STAFF RECOMMENDATION: Staff recommends adopting Ordinance 2022-18.

PROPOSED MOTION: I move to introduce Ordinance 2022-18 and schedule it for public hearing and second reading on October 25, 2022.

CITY MANAGER COMMENTS: This code revision is long overdue. We are prepared to take this item to a workshop for a more in depth review of the changes if council so chooses.

CITY OF UNALASKA
UNALASKA, ALASKA

ORDINANCE 2022-19

AN ORDINANCE OF THE UNALASKA CITY COUNCIL AMENDING TITLE 3, PERSONNEL, TO ADD A LONGEVITY BONUS, MAKE EXECUTIVES ELIGIBLE FOR THE LONGEVITY BONUS, PROVIDE LATITUDE TO THE CITY MANAGER TO HIRE ABOVE THE MIDPOINT OF THE WAGE RANGE, AND TO INCREASE MOVING EXPENSES AVAILABLE TO NEW EMPLOYEES

BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF UNALASKA, as follows:

Section 1: Classification. This Ordinance is a Code Ordinance.

Section 2: Chapter 3.60 Miscellaneous Provisions, is hereby amended by adding a new section, 3.60.140 Longevity Bonus, as follows:

§ 3.60.140 LONGEVITY BONUS.

(A) Regular full-time Executive Employees shall be paid a Longevity Bonus of $1,000 per consecutive year of service, starting at year 3, then year 5 and then every 5 years thereafter. For example:

(1) On the Executive's three (3) year employment anniversary: $3,000.

(2) On the Executive's five (5) year employment anniversary: $5,000.

(3) On the Executive's ten (10) year employment anniversary: $10,000.

(4) On the Executive's fifteen (15) year employment anniversary: $15,000.

(5) On the Executive's twenty (20) year employment anniversary: $20,000.

(B) Regular full-time, non-Executive employees, who are not represented by a labor union, shall be paid a Longevity Bonus, as follows:

(1) On the employee's three (3) year employment anniversary: $2,000.

(2) On the employee's five (5) year employment anniversary: $5,000.

(3) On the employee's ten (10) year employment anniversary: $10,000.

(4) On the employee's fifteen (15) year employment anniversary and each subsequent 5-year employment anniversary thereafter: $10,000.

(C) Part-time employees who are eligible for benefits shall be paid a partial Longevity Bonus calculated as a percentage of the bonus paid to an employee in the full-time equivalent of their position. For example, a part-time employee working twenty hours per week is eligible for a $1,000 Longevity Bonus on the employee's three (3) year employment anniversary; an employee working thirty hours per week would be eligible for $1,500 upon their three (3) year employment anniversary.

(D) Current employees, who are employed by the City on the effective date of this ordinance and who are between the anniversary years set out in paragraphs (A) and (B) above, shall receive the longevity bonus commensurate with the anniversary which they have most recently surpassed. For example, an employee who has reached their four (4) year anniversary will receive the three (3) year longevity bonus; and an employee who has surpassed their ten (10) year employment anniversary will receive the ten (10) year longevity bonus.

(E) The employment anniversary date shall be determined by the employee's current employment period with the City. Former periods of employment with the City may not be added to determine the number of years of service.

(F) The Longevity Bonus is contingent upon satisfactory job performance and may be denied or delayed at the City Manager's discretion based on disciplinary actions or other considerations at the time of the proposed bonus.

Section 3: Chapter 3.56 Executives, Section 3.56.030 Compensation, paragraph (C), is hereby amended to read as follows [New language is underlined; and deleted language is ~~overstruck~~.]:

§ 3.56.030 COMPENSATION.

(C) With the exception of a hiring bonus, cost of living adjustments, merit increases, ~~and~~ travel allowance and the longevity bonus authorized by City Council, bonuses and special merit awards are not available to executive employees.

Section 4: Chapter 3.40 Pay, Section 3.40.050 Basis of Pay Rates, paragraph (A) Hiring Wage Range, is hereby deleted and replaced, as follows:

Existing Paragraph (A) to be deleted

~~(A) *Hiring wage rate*. An appointment to any position can be made from the minimum to the midpoint of the wage range based on the applicant's experience and ability over and above the qualification requirements specified for the class, prior creditable city service, or on a critical shortage of applicants. Advancement to the maximum wage rate within a pay range shall be by successive merit increases. Approval by the City Manager shall be made in writing prior to appointment. In no instance shall appointment be made above midpoint of the wage range, except at the Department Director level.~~

New Paragraph (A)

(A) *Hiring wage rate.*

(1) Appointment to any position can be made from the minimum to the midpoint of the wage range based on the applicant's experience and ability over and above the qualification requirements specified for the class, prior creditable city service, or on a critical shortage of applicants.

(2) Appointment above the midpoint of the wage range is allowed at the Department Director level. Below the Department Director level, appointment above the

midpoint of the wage range is at the sole discretion of the City Manager, with justification provided in writing.

(3) Written approval of the hiring wage rate shall be made by the City Manager before appointment.

(4) Advancement to the maximum wage rate within a pay range shall be by successive merit increases.

Section 5: Chapter 3.60 Miscellaneous Provisions, Section 3.60.060 Moving Expenses for New Employees, is hereby amended to read as follows [New language is underlined; and deleted language is ~~overstruck~~.]:

§ 3.60.060 MOVING EXPENSES FOR NEW EMPLOYEES.

(A) Whenever, in the opinion of the City Manager, it is necessary to recruit qualified employees from outside the city, the employee will receive a lump sum payment not to exceed ~~$5,000~~ $10,000, less applicable withholdings, to assist with moving related expenses, plus airfare for the employee and dependents residing with the employee, as defined by the Internal Revenue Service. The moving expense payment amount shall be determined by the hiring Department Director and the Human Resources Manager.

(B) If the employee voluntarily leaves the employment of the city before completing 12 continuous months of employment, the employee will be required to repay the city for ~~all~~ moving expenses, prorated for the number of months employed. The repayment of ~~the~~ moving expenses may be waived by the City Manager. The City Manager may require a written repayment agreement prior to paying any moving expenses.

(C) The city shall be responsible for return transportation of an employee only as required by applicable state law.

Section 6: Effective Date. This ordinance is effective upon adoption.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on November 22, 2022.

_____
Mayor Pro Tem

ATTEST:

_____
Marjie Veeder, CMC
City Clerk

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Chris Hladick, City Manager
Date: November 10, 2022
Re: Ordinance 2022-19: Amending Title 3, Personnel, to add a longevity bonus, make executives eligible for the longevity bonus, provide latitude to the City Manager to hire above the midpoint of the wage range, and to increase moving expenses available to new employees

SUMMARY: Council had first reading of this ordinance on October 25, 2022, and adopted an amendment enhancing the longevity bonus.

In addition to the amendment adopted, staff recommends two further edits to the longevity bonus:

1. Adding explanatory examples at the end of paragraph (A) for Executive Employees, which reads:

   For example:

   (1) On the Executive's three (3) year employment anniversary: $3,000.

   (2) On the Executive's five (5) year employment anniversary: $5,000.

   (3) On the Executive's ten (10) year employment anniversary: $10,000.

   (4) On the Executive's fifteen (15) year employment anniversary: $15,000.

   (5) On the Executive's twenty (20) year employment anniversary: $20,000.

2. Adding "and (B)" to paragraph (D), so that it includes both executive and non-executive employees:

   "(D) Current employees, who are employed by the City on the effective date of this ordinance and who are between the anniversary years set out in paragraphs (A) and (B) above, …"

PROPOSED MOTIONS: TO BEGIN THE DISCUSSION: I move adopt Ordinance 2022-19 as amended by Council on October 25, 2022.

MOTION TO AMEND: I move to amend Ordinance 2022-19 to add explanatory examples at the end of paragraph (A) for the Executive Employee Longevity Bonus, and to add and "s" to the word paragraph; and add the words "and (B)" in paragraph (D) so that it includes both executive and non-executive employees.

STAFF RECOMMENDATION: Staff recommends adoption.

CITY MANAGER COMMENTS: I concur with the staff recommendation as the amendment to the longevity bonus was already adopted by council, and the two staff-suggested edits make good sense.

ATTACHMENTS:
- October 25 staff memo
- Amendment adopted by Council on October 25
- Version of ordinance showing the October 25 amendment and two additional changes suggested by staff

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Chris Hladick, City Manager
Date: October 25, 2022
Re: Ordinance 2022-19: Amending Title 3, Personnel, to add a longevity bonus, make executives eligible for the longevity bonus, provide latitude to the City Manager to hire above the midpoint of the wage range, and to increase moving expenses available to new employees

SUMMARY: This ordinance amends a few provisions of Title 3, Personnel, in order to (1) add a longevity bonus for unrepresented employees, including department directors; (2) to increase moving expenses available to new employees; and (3) to provide the city manager latitude to hire new employees above the midpoint of the range. A companion budget amendment, Ordinance 2022-20, is also being presented this evening to fund the longevity bonus and provide a 10% wage increase for unrepresented employees. Staff recommends approval.

PREVIOUS COUNCIL ACTION: The most recent amendments to Title 3 were:

- Ordinance 2021-18, adopted December 14, 2021, amended 3.44.06 to add Juneteenth National Independence Day as an annual floating city holiday beginning calendar year 2022 and making minor descriptive edits

- Ordinance 2020-01, adopted March 10, 2020, amended chapters 3.44.020, and 3.44.030 (C) and (D), clarifying overtime approval requirements and specifying employees receiving overtime compensation for working on holidays

- Ordinance 2019-10, adopted September 10, 2019, is the most significant amendment to Title 3 in recent years, and amended chapters 3.04, 3.08, 3.12, 3.16, 3.20, 3.24, 3.28, 3.32, 3.36, 3.40, 3.44, 3.48, 3.52, 3.56, and 3.60 and adopted a new chapter 3.22.

BACKGROUND: Earlier this year Council approved collective bargaining agreements with three units of IUOE Local 302. Changes to wages and benefits for our unrepresented Title 3 employees have, in the past, followed the IUOE 302 CBAs. The longevity bonus is proposed for unrepresented employees because of a similar benefit provided to PSEA and IUOE 302 employees. Also proposed is a 10% wage increase, which is funded in the accompanying budget amendment, Ordinance 2022-20.

Increasing moving expense and allowing the hiring wage to be above midpoint are proposed to assist with recruitment of new employees. In addition, the ability to hire above midpoint will offset not adjusting the wage scale at this time. There are many positions that have proved challenging to fill, and it is increasingly difficult to attract people to move to Unalaska for City jobs when there are no candidates available locally.

A comprehensive rewrite and reorganization of Title 3 is in process, but these changes are needed immediately.

DISCUSSION:

SECTION 2
3.60.140 LONGEVITY BONUS

This section of the ordinance adds a longevity bonus for all unrepresented city employees: $2,000 on the 3rd anniversary; $4,000 on the 5th anniversary; $10,000 on the 10th anniversary; and $2,000 annually on each subsequent employment anniversary. Part-time employees will be provided a longevity bonus based on the full-time equivalent of their position. Current employees who are between anniversary years will be paid the bonus consistent with the anniversary they most recently achieved. Employees who have had multiple periods of employment with the city will not be allowed to add those years together for calculation of the longevity bonus. Their most recent appointment period will be used to determine eligibility for the bonus. The longevity bonus is to reward non-represented employees for their years of service at important milestone years. This will also bring parity with the PSEA and IUOE 302 CBAs.

SECTION 3
3.56.030 COMPENSATION

This section makes executives (department directors) eligible for the longevity bonus, as are all other unrepresented employees.

SECTION 4
3.40.050(A) HIRING WAGE RANGE

This section of the ordinance amends and reorganizes the paragraph related to the hiring wage range. The pay range matrix is not changing at this time and the ability to hire above midpoint for non-executive, non-represented employees will allow us to be competitive in the marketplace with our starting salaries.

SECTION 5
3.60.060(A) MOVING EXPENSES FOR NEW EMPLOYEES

Paragraph (A) increases the moving expense from a cap of $5,000, to $10,000, and states that the HR Manager and the hiring Department Director determine the amount of the moving expense based upon the candidate's needs. This increase is required to meet the increases in shipping, mailing and other variables related to the movement of household goods and vehicles to Unalaska.

Paragraph (B) requires repayment of moving expenses should the employee voluntarily leave employment before a year. The amendment prorates the repayment based on the number of months of employment. Proration provides a fair and more standard method of moving expense repayment.

ALTERNATIVES: Council may choose to adopt the ordinance as presented, or to make amendments before adoption. Council may also choose not to proceed with this amendment to code, in which case unrepresented employees will continue unequal pay and benefits as compared to their represented coworkers.

FINANCIAL IMPLICATIONS: The financial implications for the longevity bonus are covered in the accompanying budget amendment. There is no a way to accurately project increased moving

expenses for FY23 at this time. We don't know how many employees may be hired from off-island, or the amount of a particular employee's moving expense need. If the additional moving expenses cannot be absorbed within a departmental operating budget, a future budget amendment may be necessary.

LEGAL: This ordinance has been reviewed and edited by the City Attorney.

STAFF RECOMMENDATION: Staff recommends approval.

PROPOSED MOTION: I move to introduce Ordinance 2022-19 and schedule it for public hearing and second reading at Council's first meeting in November.

CITY MANAGER COMMENTS: I recommend approval. These changes mimic what has been done in other city contracts, so it's only fair to include these in Title 3.

ATTACHMENTS: None.

Changes in red in Section 2 were adopted by Council on October 25, 2022

CITY OF UNALASKA
UNALASKA, ALASKA

ORDINANCE 2022-19

AN ORDINANCE OF THE UNALASKA CITY COUNCIL AMENDING TITLE 3, PERSONNEL, TO ADD A LONGEVITY BONUS, MAKE EXECUTIVES ELIGIBLE FOR THE LONGEVITY BONUS, PROVIDE LATITUDE TO THE CITY MANAGER TO HIRE ABOVE THE MIDPOINT OF THE WAGE RANGE, AND TO INCREASE MOVING EXPENSES AVAILABLE TO NEW EMPLOYEES

BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF UNALASKA, as follows:

Section 1: Classification. This Ordinance is a Code Ordinance.

Section 2: Chapter 3.60 Miscellaneous Provisions, is hereby amended by adding a new section, 3.60.140 Longevity Bonus, as follows:

§ 3.60.140 LONGEVITY BONUS.

(A) Regular full-Time Executive Employees Shall Be paid a Longevity Bonus of $1,000 per consecutive year of service starting At year 3, Then yr. 5 + Every 5 yrs. There After.

non-Executive

(B) ~~(A)~~ Regular full-time employees, who are not represented by a labor union, shall be paid a Longevity Bonus, as follows:

(1) On the employee's three (3) year employment anniversary: $2,000.

(2) On the employee's five (5) year employment anniversary: ~~$4,000.~~ $5,000

(3) On the employee's ten (10) year employment anniversary: $10,000.

(4) On the employee's ~~eleven (11)~~ fifteen (15) year employment anniversary and each subsequent employment anniversary thereafter: ~~$2,000.~~ $10,000

5 year

(C) ~~(B)~~ Part-time employees who are eligible for benefits shall be paid a partial Longevity Bonus calculated as a percentage of the bonus paid to an employee in the full-time equivalent of their position. For example, a part-time employee working twenty hours per week is eligible for a $1,000 Longevity Bonus on the employee's three (3) year employment anniversary; an employee working thirty hours per week would be eligible for $1,500 upon their three (3) year employment anniversary.

(D) ~~(C)~~ Current employees, who are employed by the City on the effective date of this ordinance and who are between the anniversary years set out in paragraph (A) above, shall receive the longevity bonus commensurate with the anniversary which they have most recently surpassed. For example, an employee who has reached their four (4) year anniversary will receive the three (3) year longevity bonus; and an employee who has surpassed their ten (10) year employment anniversary will receive the ten (10) year longevity bonus, ~~and then $2,000 each subsequent employment anniversary thereafter~~.

(E) ~~(D)~~ The employment anniversary date shall be determined by the employee's current employment period with the City. Former periods of employment with the City may not be added to determine the number of years of service.

~~(E)~~ (F) The Longevity Bonus is contingent upon satisfactory job performance and may be denied or delayed at the City Manager's discretion based on disciplinary actions or other considerations at the time of the proposed bonus.

Section 3: Chapter 3.56 Executives, Section 3.56.030 Compensation, paragraph (C), is hereby amended to read as follows [New language is underlined; and deleted language is ~~overstruck.~~]:

§ 3.56.030 COMPENSATION.

(C) With the exception of a hiring bonus, cost of living adjustments, merit increases, ~~and~~ travel allowance and the longevity bonus authorized by City Council, bonuses and special merit awards are not available to executive employees.

Section 4: Chapter 3.40 Pay, Section 3.40.050 Basis of Pay Rates, paragraph (A) Hiring Wage Range, is hereby deleted and replaced, as follows:

Existing Paragraph (A) to be deleted

~~(A) *Hiring wage rate.* An appointment to any position can be made from the minimum to the midpoint of the wage range based on the applicant's experience and ability over and above the qualification requirements specified for the class, prior creditable city service, or on a critical shortage of applicants. Advancement to the maximum wage rate within a pay range shall be by successive merit increases. Approval by the City Manager shall be made in writing prior to appointment. In no instance shall appointment be made above midpoint of the wage range, except at the Department Director level.~~

New Paragraph (A)

(A) *Hiring wage rate.*

(1) Appointment to any position can be made from the minimum to the midpoint of the wage range based on the applicant's experience and ability over and above the qualification requirements specified for the class, prior creditable city service, or on a critical shortage of applicants.

(2) Appointment above the midpoint of the wage range is allowed at the Department Director level. Below the Department Director level, appointment above the midpoint of the wage range is at the sole discretion of the City Manager, with justification provided in writing.

Note: this change was not adopted. and Approved By Council

(3) Written approval of the hiring wage rate shall be made by the City Manager before appointment. of All Appointments Above midpoint of the wage Range.

(4) Advancement to the maximum wage rate within a pay range shall be by successive merit increases.

Version showing amendment adopted 10/25/22; & staff suggestions, in yellow.

CITY OF UNALASKA
UNALASKA, ALASKA

ORDINANCE 2022-19

AN ORDINANCE OF THE UNALASKA CITY COUNCIL AMENDING TITLE 3, PERSONNEL, TO ADD A LONGEVITY BONUS, MAKE EXECUTIVES ELIGIBLE FOR THE LONGEVITY BONUS, PROVIDE LATITUDE TO THE CITY MANAGER TO HIRE ABOVE THE MIDPOINT OF THE WAGE RANGE, AND TO INCREASE MOVING EXPENSES AVAILABLE TO NEW EMPLOYEES

BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF UNALASKA, as follows:

Section 1: Classification. This Ordinance is a Code Ordinance.

Section 2: Chapter 3.60 Miscellaneous Provisions, is hereby amended by adding a new section, 3.60.140 Longevity Bonus, as follows:

§ 3.60.140 LONGEVITY BONUS.

(A) ~~Regular full-time~~Regular full-time Executive Employees shall be paid a Longevity Bonus of $1,000 per consecutive year of service, starting at year 3, then year 5 and then every 5 years thereafter. For example:

(1) On the Executive's three (3) year employment anniversary: $3,000.

(2) On the Executive's five (5) year employment anniversary: $5,000.

(3) On the Executive's ten (10) year employment anniversary: $10,000.

(4) On the Executive's fifteen (15) year employment anniversary: $15,000.

(5) On the Executive's twenty (20) year employment anniversary: $20,000.

~~(A)~~(B) Regular full-time, non-Executive employees, who are not represented by a labor union, shall be paid a Longevity Bonus, as follows:

(1) On the employee's three (3) year employment anniversary: $2,000.

(2) On the employee's five (5) year employment anniversary: $~~4~~5,000.

(3) On the employee's ten (10) year employment anniversary: $10,000.

(4) On the employee's ~~eleven (11~~fifteen (15) year employment anniversary and each subsequent 5-year employment anniversary thereafter: $~~2~~10,000.

~~(B)~~(C) Part-time employees who are eligible for benefits shall be paid a partial Longevity Bonus calculated as a percentage of the bonus paid to an employee in the full-time equivalent of their position. For example, a part-time employee working twenty hours per week is eligible for a $1,000 Longevity Bonus on the employee's three (3) year employment anniversary; an employee working thirty hours per week would be eligible for $1,500 upon their three (3) year employment anniversary.

~~(C)~~(D) Current employees, who are employed by the City on the effective date of this ordinance and who are between the anniversary years set out in paragraphs (A) and (B) above, shall receive the longevity bonus commensurate with the anniversary which they have most recently surpassed. For example, an employee who has reached their four (4) year anniversary will receive the three (3) year longevity bonus; and an employee who has surpassed their ten (10) year employment anniversary will receive the ten (10) year longevity bonus ~~and then $2,000 each subsequent employment anniversary thereafter.~~.

~~(D)~~(E) The employment anniversary date shall be determined by the employee's current employment period with the City. Former periods of employment with the City may not be added to determine the number of years of service.

~~(E)~~(F) The Longevity Bonus is contingent upon satisfactory job performance and may be denied or delayed at the City Manager's discretion based on disciplinary actions or other considerations at the time of the proposed bonus.

Section 3: Chapter 3.56 Executives, Section 3.56.030 Compensation, paragraph (C), is hereby amended to read as follows [New language is underlined; and deleted language is ~~overstruck~~.]:

§ 3.56.030 COMPENSATION.

(C) With the exception of a hiring bonus, cost of living adjustments, merit increases, ~~and~~ travel allowance and the longevity bonus authorized by City Council, bonuses and special merit awards are not available to executive employees.

Section 4: Chapter 3.40 Pay, Section 3.40.050 Basis of Pay Rates, paragraph (A) Hiring Wage Range, is hereby deleted and replaced, as follows:

Existing Paragraph (A) to be deleted

~~(A) *Hiring wage rate.* An appointment to any position can be made from the minimum to the midpoint of the wage range based on the applicant's experience and ability over and above the qualification requirements specified for the class, prior creditable city service, or on a critical shortage of applicants. Advancement to the maximum wage rate within a pay range shall be by successive merit increases. Approval by the City Manager shall be made in writing prior to appointment. In no instance shall appointment be made above midpoint of the wage range, except at the Department Director level.~~

New Paragraph (A)

(A) *Hiring wage rate.*

(1) Appointment to any position can be made from the minimum to the midpoint of the wage range based on the applicant's experience and ability over and above the qualification requirements specified for the class, prior creditable city service, or on a critical shortage of applicants.

(2) Appointment above the midpoint of the wage range is allowed at the Department Director level. Below the Department Director level, appointment above the

midpoint of the wage range is at the sole discretion of the City Manager, with justification provided in writing.

(3) Written approval of the hiring wage rate shall be made by the City Manager before appointment.

(4) Advancement to the maximum wage rate within a pay range shall be by successive merit increases.

Section 5: Chapter 3.60 Miscellaneous Provisions, Section 3.60.060 Moving Expenses for New Employees, is hereby amended to read as follows [New language is underlined; and deleted language is ~~overstruck~~.]:

§ 3.60.060 MOVING EXPENSES FOR NEW EMPLOYEES.

(A) Whenever, in the opinion of the City Manager, it is necessary to recruit qualified employees from outside the city, the employee will receive a lump sum payment not to exceed ~~$5,000~~ $10,000, less applicable withholdings, to assist with moving related expenses, plus airfare for the employee and dependents residing with the employee, as defined by the Internal Revenue Service. The moving expense payment amount shall be determined by the hiring Department Director and the Human Resources Manager.

(B) If the employee voluntarily leaves the employment of the city before completing 12 continuous months of employment, the employee will be required to repay the city for ~~all~~ moving expenses, prorated for the number of months employed. The repayment of ~~the~~ moving expenses may be waived by the City Manager. The City Manager may require a written repayment agreement prior to paying any moving expenses.

(C) The city shall be responsible for return transportation of an employee only as required by applicable state law.

Section 6: Effective Date. This ordinance is effective upon adoption.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on November 10, 2022.

_____
Vincent M. Tutiakoff, Sr.
Mayor

ATTEST:

_____
Marjie Veeder, CMC
City Clerk

CITY OF UNALASKA
UNALASKA, ALASKA

ORDINANCE 2022-20

AN ORDINANCE OF THE UNALASKA CITY COUNCIL CREATING BUDGET AMENDMENT #3 TO THE FISCAL YEAR 2023 BUDGET TO FUND INCREASES IN WAGES, FRINGE BENEFITS AND ASSOCIATED STATE OF ALASKA PERS CONTRIBUTIONS FOR UNREPRESENTED EMPLOYEES

BE IT ENACTED BY THE UNALASKA CITY COUNCIL

Section 1. Classification: This is a non-code ordinance.
Section 2. Effective Date: This ordinance becomes effective upon adoption.
Section 3. Content: The City of Unalaska FY23 Budget is amended as follows:

A. That the following sums of money are hereby accepted and the following sums of money are hereby authorized for expenditure.

B. The following are the changes by account line item.

Amendment #3 to Ordinance 2022-10

	Current	Requested	Revised
I. OPERATING BUDGETS			
A. General Fund			
Sources			
General Fund - Appropriated Fund Balance	$ 7,181,980	$ 412,644	$ 7,594,624
PERS Non-Employer Contribution	792,779	18,314	811,093
	$ 7,974,759	$ 430,958	$ 8,405,717
Uses			
City Administration	$ 2,025,857	$ 61,236	$ 2,087,093
Clerks	578,234	65,483	643,717
Finance/IS	2,255,617	27,743	2,283,360
Planning	801,467	38,151	839,618
Public Safety	6,430,198	69,038	6,499,236
Public Works	6,596,103	42,774	6,638,877
Parks, Culture & Recreation	3,899,059	126,533	4,025,592
	$ 22,586,535	$ 430,958	$ 23,017,493
B. Proprietary Funds			
Sources			
Electric Fund - Budgeted use of unrestricted net assets	$ 4,384,695	$ 20,119	$ 4,404,814
Electric Fund - PERS Non-Employer Contribution	167,884	863	168,747
Water Fund - Budgeted use of unrestricted net assets	2,267,550	18,508	2,286,058
Water Fund - PERs Non-Employer Contribution	74,829	810	75,639
Wastewater Fund - Budgeted use of unrestricted net assets	1,438,947	16,090	1,455,037
Wastewater Fund - PERS Non-Employer Contribution	67,506	724	68,230
Solid Waste Fund - Budgeted use of unrestricted net assets	1,531,506	14,808	1,546,314
Solid Waste Fund - PERS Non-Employer Contribution	67,092	681	67,773
Ports Fund - Budgeted use of unrestricted net assets	4,282,637	66,844	4,349,481
Ports Fund - PERS Non-Employer Contribution	101,692	2,837	104,529
Airport Fund - Budgeted use of unrestricted net assets	329,217	9,584	338,801
Airport Fund - PERS Non-Employer Contribution	12,400	374	12,774
Housing Fund - Budgeted use of unrestricted net assets	337,282	5,972	343,254
Housing Fund - PERS Non-Employer Contribution	10,047	234	10,281
	$ 15,073,284	$ 158,448	$ 15,231,732

		Current	Requested	Revised
Uses				
	Electric Fund - Utility Administration Expenses	5,868,123	20,982	5,889,105
	Water Fund - Utility Administration Expenses	1,870,677	19,318	1,889,995
	Wastewater Fund - Utility Administration Expenses	1,958,143	16,814	1,974,957
	Solid Waste Fund - Utility Administration Expenses	1,673,007	15,489	1,688,496
	Ports Fund - Harbor Office Expenses	7,024,257	62,821	7,087,078
	Ports Fund - CEM Small Boat Harbor Expenses	960,269	6,860	967,129
	Airport Fund - Admin/Operating Expenses	678,188	9,958	688,146
	Housing Fund - Admin/Operating Expenses	403,530	6,206	409,736
		$ 20,436,194	$ 158,448	$ 20,594,642

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on November 10, 2022.

_____
Mayor Pro Tem

ATTEST:

_____
Marjie Veeder, CMC
City Clerk

1) General Fund - Operating Budget
Add $430,958 for Title 3 Wages & Benefits

2) Proprietary Funds - Operating Budgets
Add $158,448 for Title 3 Wages & Benefits

	Org	Object	Current	Requested	Revised
1) General Fund - Operating Budget					
Sources:					
Appropriated Fund Balance	01010049	49900	7,181,980	412,644	7,594,623
PERS Non-Employer Contributions	01010041	42355	792,779	18,314	811,094
Uses:					
City Manager's Office					
Salaries and Wages	01020251	51100	170,068	7,939	178,007
FICA & Medicare Emplr Match	01020251	52200	11,818	607	12,425
PERS Employer Contribution	01020251	52300	49,347	1,788	51,135
Administration					
Salaries and Wages	01020351	51100	421,225	40,487	461,712
FICA & Medicare Emplr Match	01020351	52200	32,097	3,107	35,204
PERS Employer Contribution	01020351	52300	121,252	7,308	128,560
Clerks					
Salaries and Wages	01020551	51100	262,512	50,017	312,529
FICA & Medicare Emplr Match	01020551	52200	21,161	3,416	24,577
PERS Employer Contribution	01020551	52300	76,964	12,050	89,014
Finance					
Salaries and Wages	01020651	51100	643,174	6,443	649,617
FICA & Medicare Emplr Match	01020651	52200	50,633	494	51,127
PERS Employer Contribution	01020651	52300	187,619	1,340	188,959
Information Systems					
Salaries and Wages	01020751	51100	238,472	15,911	254,383
FICA & Medicare Emplr Match	01020751	52200	18,653	1,083	19,736
PERS Employer Contribution	01020751	52300	65,545	2,472	68,017
Planning					
Salaries and Wages	01020851	51100	393,616	30,268	423,884
FICA & Medicare Emplr Match	01020851	52200	31,435	1,178	32,613
PERS Employer Contribution	01020851	52300	112,646	6,705	119,351
DPS Administration					
Salaries and Wages	01021051	51100	470,211	55,694	525,905
FICA & Medicare Emplr Match	01021051	52200	36,831	2,597	39,428
PERS Employer Contribution	01021051	52300	134,505	10,747	145,252
DPW Administration					
Salaries and Wages	01022051	51100	362,418	33,514	395,932
FICA & Medicare Emplr Match	01022051	52200	28,037	2,181	30,218
PERS Employer Contribution	01022051	52300	105,555	7,079	112,634
PCR Administration					
Salaries and Wages	01023151	51100	138,009	17,601	155,610
FICA & Medicare Emplr Match	01023151	52200	10,557	813	11,370
PERS Employer Contribution	01023151	52300	40,952	4,096	45,048

	Org	Object	Current	Requested	Revised
Rec Programs					
Salaries and Wages	01023251	51100	433,237	19,085	452,322
FICA & Medicare Emplr Match	01023251	52200	36,386	1,459	37,845
PERS Employer Contribution	01023251	52300	121,535	2,736	124,271
Community Center					
Salaries and Wages	01023351	51100	481,977	17,168	499,145
FICA & Medicare Emplr Match	01023351	52200	37,482	1,313	38,795
PERS Employer Contribution	01023351	52300	102,490	2,158	104,648
Library					
Salaries and Wages	01023451	51100	388,181	13,928	402,109
FICA & Medicare Emplr Match	01023451	52200	31,112	1,065	32,177
PERS Employer Contribution	01023451	52300	94,598	2,989	97,587
Aquatics Center					
Salaries and Wages	01023551	51100	264,834	33,057	297,891
FICA & Medicare Emplr Match	01023551	52200	20,641	2,537	23,178
PERS Employer Contribution	01023551	52300	57,225	6,528	63,753
2) Electric Fund - Operating Budget					
Sources:					
Budgeted use of unrestricted net assets	50015049	49910	4,384,695	20,119	4,404,814
PERS Non-Employer Contributions	50015041	42355	167,884	863	168,747
Uses:					
Electric - Utility Administration					
Salaries and Wages	50024051	51100	482,997	16,604	499,601
FICA & Medicare Emplr Match	50024051	52200	37,078	1,174	38,252
PERS Employer Contribution	50024051	52300	139,450	3,204	142,654
Water Fund - Operating Budget					
Sources:					
Budgeted use of unrestricted net assets	51015549	49910	2,267,550	18,508	2,286,058
PERS Non-Employer Contributions	51015541	42355	74,829	810	75,639
Uses:					
Water - Utility Administration					
Salaries and Wages	51024051	51100	291,952	15,237	307,189
FICA & Medicare Emplr Match	51024051	52200	22,353	1,074	23,427
PERS Employer Contribution	51024051	52300	83,947	3,007	86,954
Wastewater Fund - Operating Budget					
Sources:					
Budgeted use of unrestricted net assets	52016049	49910	1,438,947	16,090	1,455,037
PERS Non-Employer Contributions	52016041	42355	67,506	724	68,230
Uses:					
Wastewater - Utility Administration					
Salaries and Wages	52024051	51100	243,581	13,201	256,782
FICA & Medicare Emplr Match	52024051	52200	18,579	925	19,504
PERS Employer Contribution	52024051	52300	70,079	2,688	72,767

	Org	Object	Current	Requested	Revised
Solid Waste Fund - Operating Budget					
Sources:					
Budgeted use of unrestricted net assets	53016549	49910	1,531,506	14,808	1,546,314
PERS Non-Employer Contributions	53016541	42355	67,092	681	67,773
Uses:					
Solid Waste - Utility Administration					
Salaries and Wages	53024051	51100	193,990	12,120	206,110
FICA & Medicare Emplr Match	53024051	52200	14,766	842	15,608
PERS Employer Contribution	53024051	52300	55,831	2,527	58,358
Ports and Harbors Fund - Operating Budget					
Sources:					
Budgeted use of unrestricted net assets	54017049	49910	4,282,637	66,844	4,349,481
PERS Non-Employer Contributions	54017041	42355	101,692	2,837	104,529
Uses:					
Harbor Office					
Salaries and Wages	54025051	51100	660,843	50,633	711,476
FICA & Medicare Emplr Match	54025051	52200	50,871	2,669	53,540
PERS Employer Contribution	54025051	52300	188,505	9,519	198,024
CEM Small Boat Harbor					
Salaries and Wages	54025451	51100	142,247	5,567	147,814
FICA & Medicare Emplr Match	54025451	52200	11,890	278	12,168
PERS Employer Contribution	54025451	52300	43,220	1,015	44,235
Airport Fund - Operating Budget					
Sources:					
Budgeted use of unrestricted net assets	55017549	49910	329,217	9,584	338,801
PERS Non-Employer Contributions	55017541	42355	12,400	374	12,774
Uses:					
Airport Admin/Operations					
Salaries and Wages	55025651	51100	69,869	8,170	78,039
FICA & Medicare Emplr Match	55025651	52200	5,282	401	5,683
PERS Employer Contribution	55025651	52300	19,997	1,387	21,384
Housing Fund - Operating Budget					
Sources:					
Budgeted use of unrestricted net assets	56018049	49910	337,282	5,972	343,254
PERS Non-Employer Contributions	56018041	42355	10,047	234	10,281
Uses:					
Housing Admin & Operating					
Salaries and Wages	56025851	51100	50,057	4,959	55,016
FICA & Medicare Emplr Match	56025851	52200	3,858	379	4,237
PERS Employer Contribution	56025851	52300	14,256	868	15,124

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Clay Darnell, Interim Finance Director
Through: Chris Hladick, Interim City Manager
Date: October 25, 2022 *City Manager Comments Updated November 10, 2022*
Re: Ordinance 2022-20: Creating Budget Amendment #3 to the Fiscal Year 2023 Budget to fund increases in wages, fringe benefits and associated State of Alaska PERS contributions for unrepresented employees

SUMMARY: This budget amendment funds a 10% wage increase and the addition of a longevity bonus for unrepresented Title 3 employees. The total cost to the City for this implementation is $589,406. The cost to each department is itemized on the spreadsheets attached to the Budget Amendment.

PREVIOUS COUNCIL ACTION: Council annually adopts the City's operating budget, which includes funding for wages, merit increases and the employee benefit package.

In 2013, the City commissioned a comprehensive Compensation and Benefits Analysis, the result of which was an update of the classification and pay range matrix, and Council amended Title 3 by Ordinance 2013-16 on December 17, 2013.

In 2019, Council adopted Ordinances 2019-10, updating provisions of Title 3, which included a 4.5% cost of living adjustment to the pay range matrix. An accompanying ordinance (2019-11) was also adopted to fund increased pay and benefits (along with funding for IUOE 302 CBA changes). These ordinances were adopted on September 10, 2019.

BACKGROUND: Title 3 compliments the CBAs for most employees, but Title 3 is the only governing document for unrepresented employees.

Unalaska Municipal Code Section 3.40.020 states that the City Manager shall periodically, but not less often than every four years, review the pay plan and make a report to City Council with a recommendation regarding the necessary changes to keep the pay plan current. The pay range matrix was last updated in 2019.

City staff performed an internal review of the current Title 3 compensation and benefit levels for unrepresented employees, particularly in light of the recent IUOE 302 CBAs. The City Manager proposes a 10% wage increase for current employees, the addition of a longevity bonus, as well as commissioning a comprehensive compensation and benefits analysis in order to advise of any changes needed to the pay range matrix.

DISCUSSION: The cost of $589,406 fully implements the 10% wage increase and the longevity bonus for unrepresented employees for FY23. The longevity bonus is covered in the Title 3 ordinance change (Ordinance 2022-19). These changes are effective July 1, 2022.

ALTERNATIVES: Council could choose to amend, or not to fund the salary and benefit increases.

FINANCIAL IMPLICATIONS: The cost to the City is $589,406. The cost to each department is itemized on the attached Budget Amendment Spreadsheet.

LEGAL: Staff consulted the City Attorney during the development of the accompanying changes to Title 3. There was no legal consultation regarding the budget amendment.

STAFF RECOMMENDATION: Staff recommends approval.

PROPOSED MOTION: I move to introduce Ordinance 2022-20, and schedule it for public hearing and second reading at Council's first meeting in November.

CITY MANAGER COMMENTS: I recommend approval of the increase to be fair across the board. However, the city needs to do a compensation study in the near future to address internal concerns and external forces effecting hiring and retention.

NOVEMBER 10 UPDATE: Council enhanced the longevity bonus included in Ordinance 2022-19, which means more money will be required to fund the longevity bonus. However, due to staff constraints and workload in Finance, we were unable to modify the Budget Amendment accordingly. However, once this budget amendment is passed, along with funds already appropriated for personnel, there is sufficient funding to pay longevity bonuses to current employees. If there is a shortfall in the future, another BA may be needed.

ATTACHMENTS: None.

CITY OF UNALASKA
UNALASKA, ALASKA

ORDINANCE 2022-21

AN ORDINANCE OF THE UNALASKA CITY COUNCIL RETAINING CERTAIN TAX FORECLOSED PROPERTY FOR A PUBLIC PURPOSE

WHEREAS, in the *Matter of the 2013 through 2018 Delinquent Real Property Taxes Owed to the City of Unalaska, Alaska,* Case no. 3UN-19-00020 CI, the court issued its Judgment and Decree of Foreclosure of Real Property Tax Liens on June 19, 2019, foreclosing on parcel 04-09-172, and that property has not been redeemed; and

WHEREAS, the redemption period having expired, the Court entered its Order Granting Motion for Clerk's Deed on October 14, 2020 and issued a Clerk's Deed on December 14, 2020, conveying all rights, title and interest of the former owner to the City of Unalaska, in parcel 04-09-172, described as Tract C, Carl's Subdivision, according to the official plat thereof, filed under Plat Number 91-15, Records of the Aleutian Island Recording District, Third Judicial District, State of Alaska; and

WHEREAS, this is a parcel of vacant land, approximately 2,655 square feet in size, and being a long narrow strip of land between the Iliuliuk Creek and West Broadway Avenue, adjacent to the road and has no feasible economic use other than possible future road expansion; and

WHEREAS, UCO § 6.36.220 provides that the City Council shall determine by ordinance whether tax foreclosed property shall be retained by the City for a public purpose.

NOW, THEREFORE, BE IT ENACTED BY THE UNALASKA CITY COUNCIL, as follows:

Section 1: Classification. This is a non-Code Ordinance.

Section 2: Property Retained for a Public Purpose. The following real property is retained for a public purpose by the City of Unalaska, Alaska:

Parcel	Former Owner of Record	Property Description
04-09-172	Carl's Commercial	Tract C Carl's Subdivision Addition #1, Plat 91-15

Section 3: Effective Date. This ordinance shall be effective upon adoption.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on November 22, 2022.

_____
Vincent M. Tutiakoff, Sr.
Mayor

ATTEST:

_____
Marjie Veeder, CMC
City Clerk

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Marjie Veeder, City Clerk
Through: Chris Hladick, City Manager
Date: November 10, 2022
Re: Ordinance 2022-21: Retaining Certain Tax Foreclosed Property for a Public Purpose

SUMMARY: In the city's most recent property tax foreclosure action, one property was not redeemed and after expiration of the redemption period parcel 04-09-172 was deeded to the City of Unalaska by the court. The city may retain tax foreclosed property for a public purpose or sell the property. Due to the size, shape, and location of the property, it serves no feasible economic use. Therefore, retention of the property is recommended, along with dedication to a public purpose.

PREVIOUS COUNCIL ACTION: Resolution 2019-10, adopted on March 12, 2019, authorized the foreclosure action.

BACKGROUND: UCO § 6.32.220 provides that city council shall determine, by ordinance, whether tax foreclosed property deeded to the city shall be retained by the city for a public purpose or sold (by public auction).

If council does not adopt an ordinance that determines to either retain the foreclosed property for a public purpose or sell the property, UCO § 6.36.230 applies. Section 6.36.230 gives the former record owner, or the owner's assigns, 10 years to repurchase the property by payment of delinquent taxes, penalty, interest, costs of foreclosure as well as property taxes that would have accrued had the property remained in private ownership and any costs of ownership incurred by the city. However, that 10-year right of repurchase is terminated by adoption of an ordinance, as described in § 6.36.230, determining that the foreclosed property should be sold or retained for a public purpose.

At the time of the foreclosure proceeding, the City Clerk notified the daughter of the former owner of parcel 04-09-172 because the former owner and his wife (Carl and Laresa Moses) had both passed away and notices sent to their last known address were returned as undeliverable. The daughter of the former owner indicated the family would "walk away" from the property.

DISCUSSION: Parcel 04-09-172 is vacant, contains approximately 2,655 square feet and is a long narrow strip of land between the Iliuliuk Creek and West Broadway Avenue, adjacent to the road. The parcel has no foreseeable economic use other than possible future road expansion. See attached graphic. The City may as well retain the property for a public purpose.

ALTERNATIVES: Council may attempt to sell the property; or may choose not to proceed with dedication to a public purpose, leaving the property subject to repurchase by the former owner for another eight years (ten years after the property was deeded to the city on October 14, 2020).

FINANCIAL IMPLICATIONS: None.

LEGAL: The City Clerk worked with City Attorney Charles Cacciola in preparation of Ordinance 2022-21.

STAFF RECOMMENDATION: Staff recommends adoption of Ordinance 2022-21, retaining the parcel in question for a public purpose.

PROPOSED MOTION: I move to introduce Ordinance 2022-21 and schedule it for public hearing and second reading on November 22, 2022.

CITY MANAGER COMMENTS: I concur with the Staff Recommendation.

ATTACHMENTS: Graphic showing parcel 04-09-172

Parcel 04-09-172 is the darker blue strip in the center, running along the creek between the creek and Broadway

CITY OF UNALASKA
UNALASKA, ALASKA

RESOLUTION 2022-43

A RESOLUTION OF THE UNALASKA CITY COUNCIL IDENTIFYING THE CITY OF UNALASKA'S FEDERAL PRIORITIES FOR FISCAL YEAR 2023

WHEREAS, the City of Unalaska calls upon the federal delegation and agencies to assist in obtaining funding or help with resolving issues faced by the community and the commercial fishing industry; and

WHEREAS, the City of Unalaska on a yearly basis prioritizes our project requests to be included in a congressional briefing memo and capital projects for the city, in order of priority, are contained herein; and

WHEREAS, Captains Bay Road is a heavily used commercial corridor vital to the community's economic welfare with safety concerns and economic development potential which require road improvements, water, sewer and electric utilities; and

WHEREAS, Robert Storrs Boat Harbor Improvements, Unalaska Marine Center Cruise Ship Terminal, Light Cargo Dock and Unalaska Marine Center Dredging are all port related infrastructure projects that will help meet the needs of a growing Arctic Port and the Number One Commercial Fishing Port in the nation for poundage; and

WHEREAS, the City of Unalaska supports the authorization and funding needed in order for the U. S. Army Corps of Engineers to continue moving forward with dredging and removal of Unalaska Bay entrance channel navigational restrictions to accommodate deep draft vessels, benefit commerce, and consider best practices of navigation and safety margins; and

WHEREAS, Makushin Geothermal Interconnection Projects support the City of Unalaska's commitment to alternative energy and are utility infrastructure upgrades required for the City's electrical distribution system to accept energy from the Makushin Geothermal Plant; and

WHEREAS, Solid Waste Gasifier is needed because current active landfill cells are reaching capacity. The City of Unalaska has worked with the Department of Energy National Renewable Energy Laboratory to consider the best waste management approach for our remote location. Operating costs for this project will eventually be recovered by extending the landfill lifespan.

NOW THEREFORE BE IT RESOLVED that the City of Unalaska hereby identifies its federal legislative priorities as:

1. Captains Bay Road and Utility Improvements Project - $42.4 Million - Top Project Funding Priority
2. Robert Storrs Boat Harbor Improvements - $9.5 Million
3. Unalaska Marine Center Cruise Ship Terminal - $18.59 Million
4. Light Cargo Dock and Unalaska Marine Center Dredging - $6.65 Million
5. Makushin Geothermal Interconnection Projects - $5.7 Million
6. Solid Waste Gasifier - $8.3 Million

BE IT FURTHER RESOLVED that the City of Unalaska hereby identifies its top Capital Project Funding Priority the Captains Bay Road and Utility Improvement Project.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on November 10, 2022.

_____
Mayor Pro Tem

ATTEST:

_____
Marjie Veeder, CMC
City Clerk

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Chris Hladick, Interim City Manager
Date: November 10, 2022
Re: Resolution 2022-43: Identifying the City of Unalaska's Federal Priorities for Fiscal Year 2023

SUMMARY: Every year a delegation of city council members and the mayor travels to Washington, DC to meet with our congressional delegation to lobby for City projects and discuss issues affecting Unalaska. At the various meetings the city presents a congressional briefing memo with the list of projects and issues the city is facing at the Federal level. This resolution will be used to create a list of projects that will be used in the development of a congressional briefing memo for distribution during our visits. I have attached last year's congressional memo and last year's resolution. The memo is currently being drafted and will be finalized two weeks before the trip. With this resolution, we are focusing on the projects. The most important part of the memo is the "ask" -- how much money are we seeking from the Federal Government? This needs to be accentuated because often we only have 15 minutes to meet with our delegation. We are also setting up meetings with various agencies and the Governor's office in DC.

PREVIOUS COUNCIL ACTION: Council adopted Resolution 2021-67 on October 12, 2021, with last year's priorities.

BACKGROUND: The congressional briefing memo from last year was put together by the tri-lateral group so it includes issues that are OC's or the Tribe's as well. I assumed the council wanted the same this year. The Mayor and I met with our federal lobby team on Thursday November 3, to discuss last year's memo and decide who would update which sections of the memo. Sebastian O'Kelly, Rick Marks and Brad Gilman were on the Zoom call with the Mayor and me.

DISCUSSION: Please see attached Resolution 2021-67 for capital projects that were included last year, and the staff memo for a description of the projects. I am assuming you have seen these projects before. Right now we need to approve the projects in sequence of importance for this year's resolution. I think it is important to simplify the resolution to be more to the point. The more succinct the better. Here is last year's list:

Projects:

1. **Captains Bay Road and Utility Improvements Project - $42.4 million.** There will be an update on this project during the workshop just prior to taking up the federal priorities. Costs are significantly higher than what was stated.
2. **Robert Storrs Boat Harbor Improvements - $9.5 million.** Likely we will be putting in for a state grant for this project which would cover 50% of the costs. We don't have updated numbers as of yet. We may want to put in for a MARAD PIDP grant.
3. **Unalaska Marine Center Cruise Ship Terminal - $18.59 million.** We have not identified a funding source for this project.

4. **Light Cargo Dock and Unalaska Marine Center Dredging - $6.65 million.** This is a project that has been on the books for years. I think a new part of the project is dredging in front of UMC. We had always talked about Light Cargo needing dredging in the past.
5. **Makushin Geothermal - $5.7 million.** This in support of work that needs to be accomplished for interconnection of the grid prior to geothermal coming on line.
6. **Solid Waste Gasifier - $8.3 million.** The utilities director will be giving an update on this project during this workshop. I know he has been working on this project with representatives of the Department of Energy for some time now.

New Project: Tom Madsen Airport Terminal renovation design: I would like the council to consider adding this project for $_____. This project will take a few years to develop. Design funds get the project started which would include a public process to review designs and estimates before lobbying for the full amount for construction. I would envision remodeling the current facility and adding on to it. Total costs unknown until you have a completed design. The process could take 5 to 10 years.

The following are the issues from last year's congressional briefing memo (attached), this year's memo is in process and will be done by the end of November. Some of the issues go away. Have we missed any that need to be added? This is a summary of the issues we are working on.

ISSUES:

I. CRITICAL NEEDS

1. **Stabilization of Commercial Flights at Tom Madsen Airport:** The group feels this item is no longer needed. With Aleutian Airways coming to Unalaska there will now be competition with Ravn which will be a good thing for the citizens of Unalaska.
2. **Crab Fisheries & Trawl Bycatch:** This section will stay. Seb O'Kelly is updating the first paragraph to include current legislation and Frank Kelty will update the rest of the text in the memo. Meetings will be set up with NMFS and NOAA and we will also discuss the Heart of the Ocean Sanctuary initiative on file with NOAA to develop a marine sanctuary around the Pribolof Islands. The Mayor and I spoke with a deputy Chief of Staff for Gov. Dunleavy this week about the issue. Fish and Game has sent a letter not supporting the sanctuary. The Mayor will give an update at the council meeting of what he has been able to find out in the last couple of weeks. This is a critical need for sure.

II. ARCTIC PORT DEVELOPMENT

1. **Unalaska Bay Entrance Channel Dredging Project:** The memo will thank the delegation for their support as the project is funded in the Senate version of the appropriations bill but not the House version. We are hoping it is handled in conference committee. Seb O'Kelly will be updating this paragraph with the latest from DC. It stays on the list and we will set up meetings with the Corps of Engineers to discuss.
2. **DOD Innovative Readiness Training (IRT):** Vince will speak with the Tribe on this issue but it likely will be dropped from the memo unless the Tribe has an update.
3. **Coast Guard:** This is an initiative taken on primarily by the Tribe. We will be visiting with the Coast Guard to update them with information about our community. This will be updated by the Tribe.
4. **Arctic Port/Military Presence:** This paragraph will be updated by the Tribe and we will likely visit with the Tribal Liaison for DOD on this issue. It stays in the memo.

III. ECONOMIC DEVELOPMENT

1. **Makushin Geothermal Energy Project:** Natalie Cale will update this information on the most current developments with the project. The City will provide an update on the City's obligations under the PPA. We are not sure whether a meeting with DOE will be set up.
2. **Environmental Remediation of Native and City Lands**: OC and the Tribe will update this section and will include a thank you to Senator Murkowski for conducting a field hearing in Unalaska this past summer. It's likely a meeting will be set up with EPA as follow-up to the field hearing. We will also discuss this issue with the Corps of Engineers.
3. **Island Broadband**: It is my understanding that the fiber optic connection to Kodiak has been made and GCI is performing testing on the equipment here on the island. I have not heard a date from GCI for going live. It should be soon! This issue comes off the list.
4. **Economic Development Administration (EDA) Grant Application:** This is the Tribe's issue and likely to come off the list.

IV. CAPITAL PROJECTS

See beginning of the discussion.

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

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

LEGAL: No legal review required.

STAFF RECOMMENDATION: Staff recommends approval.

PROPOSED MOTION: I move to adopt Resolution 2022-43.

CITY MANAGER COMMENTS: Much more time is spent preparing for these meetings than the actual time in the meetings themselves. However, it always helps to see people in Washington DC and meet directly with those who represent who us in Congress. It's always worthwhile.

ATTACHMENTS:

- Last Year's Federal Priorities briefing memo
- Last Year's Resolution Identifying Federal Priorities

Congressional Briefing Memo – City of Unalaska, Washington, DC Visit (Dec. 2021)

Attendees

The Honorable Vince Tutiakoff Sr, Mayor
The Honorable Dennis Robinson, Vice Mayor
The Honorable Thomas Bell, Council Member
Erin Reinders, City Manager
Natalie Cale, Chief Operating Officer/General Counsel, Ounalashka Corporation
Chris Price, CEO, Qawalangin Tribe
Cole McCracken, Member, Qawalangin Tribe & Ounalashka Corporation
Dianne Blumer, Blumer & Associates
Sebastian O'Kelly, Washington Representative
Rick Marks, Washington Representative
Brad Gilman, Washington Representative

The visitors from Unalaska represent three entities – the City, the Qawalangin Tribe, and the Ounalashka Corporation that have signed an MOU (known as the Tri-lateral Agreement) to partner and collaborate on initiatives and projects important to Unalaska's future, with the Federal priorities outlined below.

I. CRITICAL NEEDS

1. Stabilization of Commercial Flights at Tom Madsen Airport

Maintaining safe, reliable, cost-effective air service between Anchorage and Unalaska remains the City's highest Federal priority. Our remote, mountainous island location, frequent inclement weather, and airport size and placement make flying in and out of Unalaska a challenge, particularly during fishing season where the air transport of processing workers and fishing crew is critical for our commercial fisheries to operate. We are currently beholden to just one carrier – Ravn Air – for commercial air service, with the only other option expensive charter service. Ravn Air, while now operating regularly, previously declared bankruptcy in 2020. We went a significant period of time without commercial air service before the new owners of the airline took control. Previously, we were served by the bankrupt and defunct PenAir.

On October 17, 2019, PenAir #3296 overran the airport runway, resulting in a fatality and a number of injuries. The NTSB just held a hearing on the results of its accident investigation. Faulty wiring on the plane's (a Saab 2000) brake antiskid mechanism was cited as the primary cause, but the investigation also cited a combination of pilot error (the pilot landed the plane with a tailwind of 24 mph, above the 15 mph standard for flights into the airport) and inexperience, PenAir safety culture and lack of a runway safety area. Stronger FAA oversight is one the NTSB's principal recommendations.

The State of Alaska has been working on a Master Plan for improvements to the airport for its safe and efficient operation over the next 20 years. It has developed a Preferred Alternative (link below) for public comment that in addition to seeking improvements to aircraft aprons, parking, terminal and storage areas, recommends installation of an Engineered Material Arresting System (EMAS). EMAS uses crushable material placed at the end of a runway to stop an aircraft from overrunning. Estimated costs of the Preferred Alternative are as follows – EMAS ($56.6 million); terminal upgrades and expansion ($20 million); and general aviation improvements ($17.8 million).

https://dot.alaska.gov/sereg/projects/unalaska/assets/DUT%20MPU%20Draft%20Working%20Paper%204B.pdf

A new air service business, Aleutian Airways, is seeking to provide Anchorage-Unalaska direct service using the former PenAir Saab 2000 aircraft. The company will need to wait until the manufacturer inspects and corrects the brake wiring issues with all the Saab aircraft and has paused their plans until then. Their service will provide the residents of the community with access to two competing air carriers and avoid a complete loss of service should a carrier withdraw from service in the future for any reason.

The City strongly supports funding for DOT's Essential Air Service (EAS) Program, which provides a regulatory safety net assuring a minimum level of service to Unalaska. We appreciate the waiver DOT provided to the City that allowed us to charter planes to provide interim service during the down period. We thank the Delegation for its support of EAS and resumption of air service after the earlier Ravn bankruptcy. Longer-term, the airport needs renovation to address runway safety issues, among other improvements, as expected to be called for in the final State Master Plan.

- **Recommendations To The Delegation –**Support for FAA Airport Improvement Program funding for airport safety and other airport upgrades pending finalization of the Master Plan. Support for Aleutian Airways entrance into service once the company's planes have received the proper safety clearances. Continue overall support for EAS.

2. Crab Fisheries Disaster & Trawl Bycatch Issue

Two very important fisheries to Unalaska – the Bristol Bay red king crab and the Eastern Bering Sea snow crab fisheries – face a total closure and almost total closure for the 2021-22 fishing seasons. Estimates of combined ex-vessel fishery value loss are $165 million. Reasons for the species declines are believed to be due to either a natural mortality event or migration of crab north and are not fishing-related.

The City derives substantial revenue from these two crab fisheries from its raw fish tax on the landing of product in Unalaska. We estimate these losses to City coffers to be $2.7 million. The Governor is considering a request by the crab fishing community to seek a fisheries resource disaster declaration from the Secretary of Commerce.

Separately, legislation to reform the Federal fisheries disaster process -- S. 2923, the Fishery Resource Disasters Improvement Act -- passed the Senate at the end of Sept and includes provisions that qualify local government loss of raw fish tax revenues as eligible for reimbursement from Federal fisheries disaster relief funds.

Lastly, as part of the reauthorization of the Magnuson-Stevens Act, an organized effort is taken shape to strengthen the Act's bycatch protections by making exaggerated claims about salmon bycatch in the large trawl fisheries that Unalaska is dependent upon. These fisheries, boat sizes and gear type are necessary for the landing and processing of Pacific cod and pollock in volumes sufficient to sustain the community's primary workforce and economic base. Our trawl fisheries have worked hard to reduce bycatch over the years, with Chinook salmon bycatch down almost 90 percent from 15 years ago. The fleet has made and continues to make substantial modifications in fishing practices and gear technologies to further lower bycatch for a species whose declines are primarily attributable to other causes such as climate change.

- **Recommendations To The Delegation –** Should the Governor submit a fisheries disaster request to the Department of Commerce, urge the Secretary to approve the request and support follow-

on appropriations. Support House passage of the Fishery Resource Disasters Improvement Act this year so that the City would be eligible for crab disaster relief to offset its $2.7 million in losses. Remain vigilant to organized efforts to mischaracterize trawl bycatch in Unalaska's fisheries.

II. ARCTIC PORT DEVELOPMENT

1. Unalaska Bay Entrance Channel Dredging Project

The Port of Dutch Harbor has grown in importance as a regional port for the Alaska fishing fleet, transient vessels, Arctic exploration support vessels and drill ships, military craft, and vessels in distress. Filling in of the entrance channel to Dutch Harbor has increased the risks of larger cargo and other vessels hitting bottom or running aground. These vessels often have to wait for high tide to enter.

Dredging of the entrance chance has been studied by the Army Corps of Engineers, with the Chief of Engineers submitted a report to Congress on February 7, 2020 recommending that the project be authorized. The project was authorized in the WRDA Title of the Consolidated Omnibus Appropriations Act of 2021, with a total project cost of $35,956,000, of which $26,967,000 is the Federal Share and $8,989,000 is the Non-federal share.

Its next phase involves Planning, Engineering and Design (PED) at an estimated cost of $2,300,000 with 75/25 percent Federal/local cost share. The City has signed the Design Agreement with the Corps to provide its share.

- **Recommendations To The Delegation –** Advocacy with the Corps to include the Federal share ($1,725,000) of the PED cost for the project as part of Corps 60 day work plan required under the Bipartisan Infrastructure Investment & Jobs Act. Support for funding as a community project request in the FY 2023 appropriations process.

2. DOD Innovative Readiness Training (IRT)

In August of 2020, Unalaska hosted a very successful IRT mission and visit by the 351st Civil Affairs Command, United States Army Reserve, with a focus on field assessments of critical infrastructure, review of future renewable energy opportunities and discussions of the need for environmental remediation of City and Tribal lands. The mission was later determined by the IRT Program to be The Military-Civilian Partnership Of The Year. The Tribe has a pending application for funding for a follow up IRT mission that would focus on remediation of contaminated lands, additional road construction for the Makushin Geothermal Study, and a military base feasibility study. We also view the IRT missions as means to develop goodwill with the military as well as demonstrate Unalaska's advantages should serious consideration be given to building an Arctic military base in the future.

- **Recommendations To The Delegation –** Urge DOD to fund the Tribe's IRT application**.**

3. Coast Guard

The City appreciates the Coast Guard's long-time presence in our community which will grow in importance as marine transportation expands in the region. We encourage the USCG to become an accompanied duty station in Unalaska. We also favor offsetting the rotation of the Marine Safety Detachment so that half the team rotates in summer and half the team rotates in winter. We believe this rotation will maintain continuity and established relationships needed to best perform in Unalaska.

(**NOTE**: Senator Sullivan has just introduced S. 3272, the Arctic Focus Act, that would prioritize new Coast Guard ice breaker deployment and home-porting in Alaska).

- **Recommendations To The Delegation –** Urge the USCG to make Unalaska an accompanied duty station.

4. Arctic Port/Military Presence

The Port of Dutch Harbor is the only deep draft, year-round ice-free port from Unimak Pass west to Adak and north to the Bering Strait. Our port has been designated a "Port of Refuge" and provides protection and repair for disabled or distressed vessels as well as ground and warehouse storage and transshipment opportunities for the thousands of vessels that fish or transit the waters surrounding the Aleutian Islands daily. We served as the staging area for Shell Oil during its OCS drilling exploration in the Chukchi Sea a few years ago. Unalaska used to host a Naval base (closed after WW2) and is interested in that role again should our strategic challenges with China and Russia reach a point where the Navy believes it needs an operating base in the region. As the Arctic ice sheet further retreats due to climate change, the Northwest Passage over the top of Alaska and Canada starts to become a viable trade route that would save on time and shipping costs for certain transit routes. Unalaska could be a waypoint for refueling, vessel maintenance and repair, crew rotation, search and rescue or oil spill response once the Northwest Passage becomes viable. Additional details can be found at the separate PDF attachment ("Strategic Ports").

- **Recommendations To The Delegation –** Continued consideration and awareness of Unalaska's potential as an Arctic Port as part of the long-term evolution of the Arctic in trade, security, and natural resource matters.

III. ECONOMIC DEVELOPMENT

1. Makushin Geothermal Energy Projects

In August of 2020, the City entered into a 30 year Power Purchase Agreement (PPA) with Ounalashka Corporation-Chena Power (OCCP) to buy all of its electricity from the Makushin Geothermal Project once it is up and running. By doing so, the City demonstrated it strongly supports OCCP's development of geothermal energy in our community and enabled OCCP's efforts to obtain project financing. However, there are some challenges that must be met for the project to reach its potential.

OCCP has qualified for submission of a Phase 2 application to the DOE for a Title 17 loan. Pending in the Senate FY 2022 Energy & Water Approps Bill is $2.6 million in Congressionally-directed spending to the Qawalangin Tribe for the project. Survey work for location of undersea cable to bring power from the project site to the City was completed this summer and an RFP for laying the cable has been issued. OCCP recently selected Ormat Technologies Inc, an Israeli company, to construct the project. The Ounalashka Corporation's investment in the project so far includes $2.5 million for seeding the partnership; $9 million for the purchase of 7,000 acres of private property where the geothermal production facility will be located; and $8 million for construction of an access road. Per the PPA, the City has agreed to pay an annual lump sum payment of $16.3 million (with a 1% increase per year) starting in 2024. The payment will reach $22 million in year 30. Other project details can be found at the link -- https://www.alaskageothermal.info/project

From the City's perspective, the two main challenges are as follows. First, much of the Unalaska's energy use is in private hands. Its heaviest energy users, the seafood processing companies, operate

their own diesel energy electric power systems. While many are interested in the OCCP project, they are reluctant to commit to purchasing geothermal power at this point until they better understand the rates versus their own diesel operating costs. Without processor buy in, the City's residential rate payers, including residents, would see a major increase in their utility bills (see separate PDF attachment) in order for the project to be economically-feasible. DOE's Office of Tribal Energy is funding a socioeconomic study which may help sell the value of geothermal energy to the processing community as well as to the Coast Guard during its vessel visits to Unalaska.

Another one of the challenges will be the demands geothermal power will place on the City's electrical grid which is currently not ready to handle or distribute the power load from the project. Substantial municipal utility and grid upgrades will be necessary. A detailed interconnection study is underway and will outline specific projects and improvements as well as their associated costs. Based on an interim study, we have identified associated projects costing $5.7 million which would include replacement of the aging submarine cable at Iliuliuk Bay, upgrades to numerous feeder connections and substations, and improvements to the current data management system and automated controls. Additional funding will be necessary as OCCP's plans are solidified and the detained interconnection study is completed.

- **Recommendations To The Delegation –** Support for the City grid upgrade project with DOE and as a community project in the FY 2023 appropriations process. Support for the $2.6 million in project funding to the Tribe in the final FY 2022 appropriations bill. Continued support for the OCCP DOE Title 17 loan application. Encourage Unalaska's seafood processing companies to consider agreements to purchase OCCP geothermal power.

2. Environmental Remediation Of Native & City Lands

Unalaska unfortunately has many contaminated lands that go back to the WW2 conflict on the Island, including leftover environmental hazards from the old Naval base, chemical agents and unexploded ordnance. The City has been working with the Army Corps of Engineers Formerly Utilized Defense Sites (FUDS) Program as part of the Amaknak Restoration Advisory Board on contaminated site identification and characterization. However, the FUDS program has a major backlog in project work, plus much of the former Federal lands are now in the possession of the City, Tribe and Ounalashka Corporation. Without additional environmental assessment and follow on clean up, there are severe limitations on the use of these contaminated properties for economic development or human use. Additional sources of assistance beyond FUDS are necessary.

The City is working to submit a community-wide EPA Brownfields assessment grant application for FY 2022 working in collaboration with the environmental consulting firm Stantec. Separately, the Ounalashka Corporation is working on establishing a Section 8a company in collaboration with Waste Management Inc. to address actual clean ups. The Tribe has been a recipient of funds from DOD's Native American Lands Environmental Mitigation Program. The Bipartisan Infrastructure Investment & Jobs Act substantially increases funding for EPA's Brownfields Program and also raises the per project cap from $500,000 to $5 million.

- **Recommendations To The Delegation** – Advocacy with EPA to approve funding for the City's FY 2022 Brownfields grant application.

3. Island Broadband

Unalaska's slow internet speeds impede business growth, access to medical services, remote post-secondary education, and our community's overall quality of life. Fortunately, it looks like with Federal and private investment, we should see improvements in internet service in the future. The City supports

public-private investments that would both improve service but also provide its residents, business and government rate competition and multiple provider options. GCI has been awarded $25 million in USDA funding to go toward its fiber optic cable project through the Aleutian Island chain. GCI is seeking additional funding through NTIA's tribal broadband grant program. The Qawalangin Tribe has teamed with Tel Alaska to submit a $125 million NTIA funding application to run a fiber optic cable directly from Seattle to Unalaska. The Tribe is not part of the Alaska Tribal Spectrum $251 million grant application which has been submitted on behalf of 96 Alaska tribes.

- **Recommendations To The Delegation –** Continue to support NTIA, USDA and FCC funding and policy that leads to improved broadband service in Unalaska.

4. Economic Development Administration (EDA) Grant Application

The Qawalangin Tribe has submitted a $500,000 grant application for regional economic planning in partnership with the City and the Ounalashka Corporation as part of EDA's Build Back Better Regional Challenge. EDA is expected to make 50-60 grant awards for Phase 1 of the program. Those awardees will next be eligible to submit more detailed applications for Phase 2. EDA will then award $25 million to $75 million to each finalist (20-30 expected awards). If the Tribe succeeds in getting funding in Phase 1, it will then qualify for applying for Phase 2. Phase 2 funding would be sufficient in fully funding a number of joint Tribal and City priorities, including some of the projects listed in this memo.

- **Recommendations To The Delegation –** We thank the Delegation for its letter of support to EDA for the Tribe's Phase 1 application. Should the Tribe receive a Phase 1 grant we would appreciate additional support when applying for Phase 2 funding.

IV. CAPITAL PROJECTS

1. Captains Bay Road and Utility Improvements Project - $54 Million. This item is the City's top project funding priority. Captains Bay Road is a gravel road that serves as the primary transportation route for Westward Seafoods, Alaska Chadux Network (oil spill response), North Pacific Fuel, Trident Seafoods, Alaska Marine Lines, Offshore Systems Inc., Bering Shai Rock and Gravel, and small businesses and residences. This high traffic area is a corridor for pedestrians as well as heavy trucks in the fishing, shipping, and support industries vital to Unalaska's economy. Future growth and business activity is expected to occur along Captains Bay Road. This project includes roadway realignment, utility extension and installation, drainage improvements, lighting, walkways and pavement. Because of its cost, the City is considering breaking the project into phases. Currently, the City is working on a Cost Benefit Analysis to help objectively define the benefit and define the scope of each phase.

2. Robert Storrs Boat Harbor Improvements – $9.5 Million. The Robert Storrs Boat Harbor was inherited by the City of Unalaska from the State of Alaska and has served the community well for over 30 years but its floats are aged and decrepit. The project will install a new float system for 30 slips, ADA gangway, and create uplands for parking and a public restroom, along with utilities and fire suppression.

3. Unalaska Marine Center Cruise Ship Terminal - $18.59 Million. Unalaska has seen an increase in cruise ship visitation, with the potential for additional growth. Currently, there is no dedicated cruise ship dock or terminal in the community. Presence of a dedicated dock/terminal would help the City promote tourism and make Unalaska a more attractive stop for cruise ships. Currently cruise ships must share space at the Unalaska Marine Center with fishing and cargo vessels. A cruise ship terminal would allow for dedicated cruise ship berthing and eliminate safety issues created from passengers

walking through cargo operations as well as allow the latter to operate more efficiently without the concern of conflicting with cruise ship needs.

4. Light Cargo Dock & Unalaska Marine Center Dredging - $6.65 Million. Many of the vessels currently calling at our Port must adjust ballast to cross the entrance channel and dock inside the harbor. Vessels using the Light Cargo Dock that draw more than 22' must insert another vessel in between the dock face and their vessel in order to get enough water under the keel. Dredging in front of the Light Cargo Dock will also make this dock more accessible for current customers as well as allow access for larger vessels. This project includes the engineering, permitting, and dredging at the faces of the Light Cargo Dock and the Unalaska Marine Center positions 1-7.

5. Solid Waste Gasifier - $8.3 Million. The City of Unalaska has worked with the DOE National Renewable Energy Laboratory (NREL) to consider the best waste minimization technology pathway for our location. Gasification and/or anaerobic digestion was deemed to be the best long-term solution. A solid waste gasifier could be used to dispose of bales already buried in the landfill cells, vastly increasing the current landfill's projected lifespan. In keeping with our commitment to clean geothermal power and an overarching goal of becoming carbon neutral, the City is seeking a technology provider that can offer a plant design that uses the syngas production from the gasification process to pre-dry the feedstock, reducing the diesel needed to reach a self-sustaining steady-state operation.

- **Recommendations To The Delegation** – Support for these projects either as community project requests in the FY 2023 appropriations process or as grant applications to relevant Federal programs should the City submit them.

CITY OF UNALASKA
UNALASKA, ALASKA

RESOLUTION 2021-67

A RESOLUTION OF THE UNALASKA CITY COUNCIL IDENTIFYING THE CITY OF UNALASKA'S FEDERAL PRIORITIES

WHEREAS, the City of Unalaska calls upon federal delegations and agencies to assist in creating an environment that allows for redundancy in aircraft in order to safely and reliably meet the transportation needs of our island community; and

WHEREAS, the City of Unalaska supports the authorization and funding needed in order for the U. S. Army Corps of Engineers to continue moving forward with removal of Unalaska Bay entrance channel navigational restriction to accommodate deep draft vessels, benefit commerce, and consider best practices of navigation and safety margins; and

WHEREAS, the City of Unalaska continues to support reliable and cost effective alternate energy sources, including geothermal and wind, which decreases our reliance on diesel fuel; and

WHEREAS, the City of Unalaska continues to support programs and activities to bridge the digital divide that impede business growth, medical services, education, and overall quality of life; and

WHEREAS, the City of Unalaska supports environmental remediation efforts. Unalaska has several sites that were subject to the Department of Defense's Formerly Utilized Defense Sites environmental program due to contamination which occurred during WWII activities, as well as WWII related contamination that is discovered during construction projects today, negatively impacting construction projects and subsistence living; and

WHEREAS, the City of Unalaska encourages the U. S. Coast Guard to allow for Unalaska to become an accompanied duty station or to stagger the rotation schedule of the Marine Safety Division to help maintain continuity needed to effectively perform in Unalaska. As marine transportation increases in our region, the Coast Guard's presence in our community is more valued than ever; and

WHEREAS, the City of Unalaska encourages the United States military presence in Unalaska that will, given our strategic location in the Arctic region, increase the safety of the nation. Such a presence would also assist in the diversification of our local economy and support the Makushin geothermal project; and

WHEREAS, Unalaska is a strategically located and vibrant Artic Port community. Home to the largest commercial fishing port in the nation, Unalaska's International Port of Dutch Harbor is a vital transportation and economic hub that will only become more key as northern shipping routes expand. The Port of Dutch Harbor is the only deep draft and year-round ice-free port from Unimak Pass west to Adak and north to the Bering Strait; is a designated "Port of Refuge"; and is the western most container terminal in the United States; and

WHEREAS, Captains Bay Road is a heavily used commercial corridor vital to the community's economic welfare with has safety concerns and economic development potential which require road improvements, water, sewer and electric utilities; and

WHEREAS, Robert Storrs Boat Harbor Improvements, Unalaska Marine Center Cruise Ship Terminal, Light Cargo Dock and Unalaska Marine Center Dredging are all port related

infrastructure projects that will help meet the needs of a growing Arctic Port and the number one commercial fishing port in the nation; and

WHEREAS, Makushin Geothermal Interconnection Projects support the City of Unalaska's commitment to alternative energy and are utility infrastructure upgrades required for the City's electrical distribution system to accept energy from the Makushin Geothermal Plant; and

WHEREAS, Solid Waste Gasifier is needed because current active landfill cells are reaching capacity. The City of Unalaska has worked with the Department of Energy National Renewable Energy Laboratory to consider the best waste management approach for our remote location. Operating costs for this project will eventually be recovered by extending the landfill lifespan.

NOW THEREFORE BE IT RESOLVED that the City of Unalaska hereby identifies its federal legislative priorities as:

FEDERAL LEGISLATIVE PRIORTIES
Critical Needs Support
Stabilization of Commercial Flights at Tom Madsen Airport - Top Critical Need
Unalaska Bay Entrance Channel Dredging
Alternative Energy
Reliable and High Speed Internet
Environmental Remediation
United States Coast Guard Presence
United States Military Presence
Artic Port Development in Unalaska
Capital Project Funding Support
Captains Bay Road and Utility Improvements Project - $54 Million - Top Project Funding Priority
Robert Storrs Boat Harbor Improvements - $9.5 Million
Unalaska Marine Center Cruise Ship Terminal - $18.59 Million
Light Cargo Dock and Unalaska Marine Center Dredging - $6.65 Million
Makushin Geothermal Interconnection Projects - $5.7 Million
Solid Waste Gasifier - $8.3 Million

BE IT FURTHER RESOLVED that the City of Unalaska hereby identifies its Top Critical Need as the support for the stabilization of commercial flights at Tom Madsen Airport.

BE IT FURTHER RESOLVED that the City of Unalaska hereby identifies its top Capital Project Funding Priority the Captains Bay Road and Utility Improvement Project.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on October 12, 2021.

Vincent M. Tutiakoff, Sr.
Mayor

ATTEST:

Marjie Veeder, CMC
City Clerk

CITY OF UNALASKA CORPORATE SEAL STATE OF ALASKA

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Erin Reinders, City Manager
Date: October 12, 2021
Re: Resolution 2021-67: Identifying the City of Unalaska's Federal Priorities

SUMMARY: City Council identifies legislative priorities annually. This memo outlines Council's existing federal priorities, draft priorities discussed on September 28, and the final proposed priorities based on Council feedback. These final priorities are outlined in Resolution 2021-67. Staff recommends approval.

PREVIOUS COUNCIL ACTION: Identifying State and Federal legislative priorities is a recurring Council action to express the City's support for certain initiatives; to seek support for capital projects; and in preparation for lobbying trips. Council last approved Federal Legislative Priorities via Resolution 2020-61 on September 22, 2020. Priorities approved at that time were:

CURRENT FEDERAL LEGISLATIVE PRIORTIES
Critical Needs Support
Stabilization of Commercial Flights at Tom Madsen Airport*
Unalaska Bay Entrance Channel Dredging Support
Alternative Energy Support
Reliable and High Speed Internet Support
Environmental Remediation Support
United States Coast Guard Presence
Capital Project Funding Support
Captains Bay Road and Utility Improvements Project - $52 Million
***Bold indicates that Priority is also identified as a State Priority**

That resolution also identified the Stabilization of Commercial Flights at Tom Madsen Airport as the number one key critical support need and the Captains Bay Road and Utility Improvements Project as the number one project funding priority.

Council reviewed DRAFT Federal Legislative Priorities during the September 28, 2020 work session. The DRAFT Priorities are outlined below. No formal action was taken at that time.

DRAFT FEDERAL LEGISLATIVE PRIORTIES
Critical Needs Support
Stabilization of Commercial Flights at Tom Madsen Airport (existing)
Unalaska Bay Entrance Channel Dredging (existing)
Alternative Energy (existing)
Reliable and High Speed Internet (existing)
Environmental Remediation (existing)
United States Coast Guard and Military Presence in Unalaska (expanded)
Capital Project Funding Support
Captains Bay Road and Utility Improvements Project - $54 Million (existing)

Robert Storrs Boat Harbor Improvements – $9.5 Million (new)
Unalaska Marine Center Cruise Ship Terminal - $18.59 Million (new)
LCD and UMC Dredging - $6.65 Million (new)
Makushin Geothermal Interconnection Projects - $5.7 Million (new)
Solid Waste Gasifier - $8.3 Million (new)

BACKGROUND: City Council will discuss and consider State Legislative Priorities separately from the Federal Priorities this year. Tentatively, we are looking to hear from our State Lobbyist in November, and will look to finalize State priorities by January.

Our Federal lobbyists tell us that earmarks may be returning to the Congressional budgeting process and that there seems to be a strong interest in utility and port infrastructure projects. Sebastian O'Kelly suggested we consider adding some of our Capital Projects to the list. Tonight you will also hear a Federal Legislative update from our team of lobbyists and discuss this year's federal lobby efforts.

City Council has also started to identify goals and focus areas. These include developing an arctic port, air transportation, and natural resources with a geothermal focus.

DISCUSSION: Below is a list and overview of federal legislative priorities for Council's consideration this evening. This list was originally developed with Council's existing priorities, lobbyist guidance, and Council's ideas for goals and focus areas in mind. Much of the information in the overview is from the CMMP with input of City staff.

Changes from the DRAFT list are based on Council feedback. United States Military Presence and Arctic Port Development in Unalaska are now each specifically identified as federal priorities, and added to the list of critical needs support items. The top critical need (stable commercial flights) and number top capital project funding request (Captains Bay Road) have been identified based on Council consensus on September 28th, and remain unchanged from past years.

FINAL FEDERAL LEGISLATIVE PRIORTIES
Critical Needs Support
Stabilization of Commercial Flights at Tom Madsen Airport – top critical need (existing)
Unalaska Bay Entrance Channel Dredging (existing)
Alternative Energy (existing)
Reliable and High Speed Internet (existing)
Environmental Remediation (existing)
United States Coast Guard Presence (existing)
United States Military Presence (new – standalone item based on Council feedback on 9/28)
Artic Port Development in Unalaska (new – added based on Council feedback on 9/28)
Capital Project Funding Support
Captains Bay Road and Utility Improvements Project - $54 Million – top project funding priority (existing)
Robert Storrs Boat Harbor Improvements – $9.5 Million (new)
Unalaska Marine Center Cruise Ship Terminal - $18.59 Million (new)
LCD and UMC Dredging - $6.65 Million (new)
Makushin Geothermal Interconnection Projects - $5.7 Million (new)
Solid Waste Gasifier - $8.3 Million (new)

Critical Needs Support

1. **Stabilization of Commercial Flights at Tom Madsen Airport.** *This is an existing and unchanged Legislative Priority (both State and Federal) that helps to address Council's recently identified focus on air transportation***.** This item is currently identified as Unalaska's top critical need.

   Air travel is the only way to reasonably access our island community. Direct, safe, reliable, and affordable flights meeting regular and peak season demands of our community is critical. The airport and runway are owned and managed by the Alaska Department of Transportation. Furthermore, the Alaska Department of Transportation, US Department of Transportation, and the Federal Aviation Administration are responsible for supporting safe and efficient transportation systems and infrastructure.

   The grounding of the Saab 2000 for the DUT-ANC route, in the aftermath of the crash of Flight 3296, highlighted the risk of having only one airline with one commercial aircraft authorized to fly passengers directly between Anchorage and Unalaska. This was again recognized when Ravn Air declared bankruptcy and stopped all air service in April of 2020 for a lengthy period of time. We call upon state and Federal delegations and agencies to assist in creating an environment that allows for redundancy in aircraft service in order to meet our island community's transportation needs.

   We also support the State of Alaska's efforts as they update and implement their Airport Master Plan for Tom Madsen Airport to address runway improvements. We support the Essential Air Service program, and related programs, as critical tools to ensure the long term viability of air travel to and from Unalaska.

2. **Unalaska Bay Entrance Channel Dredging Support.** *This is an existing and unchanged Legislative Priority that helps to address Council's vision of becoming an arctic port and is currently identified on the CMMP.* The City of Unalaska was a non-Federal sponsor of the cost-shared feasibility study, led by the Army Corps of Engineers, evaluating the effects of the removal of a navigation restriction that severely impacts our ports. We are now the non-Federal sponsor of the design phase of this project. We have a signed Design Agreement; the Corps is authorized and federally funded for the 75/25 Cost Shared effort that will produce plans and specifications ready to advertise for the -58+2 dredging of the outside bar. The removal of this navigational restriction helps us accommodate deep draft vessels, will benefit commerce, and considers best practices for navigation and safety margins. This project is dependent upon the US Army Corps of Engineers continued support of this Federal project and their funding share.

3. **Alternative Energy Support.** *This is an existing and unchanged Legislative Priority that helps to address Council's recently identified focus on geothermal power and natural resources.* The absence of adjoining electrical systems forces the City of Unalaska to cover contingency planning and react to unplanned outages without relying on help from an adjoining utility grid. The City continues to look for support with reliable and cost effective alternate energy sources, including geothermal and wind. The City supports measures that encourage other alternate energy opportunities to become viable options for our community. The city is currently involved in the feasibility study stage of a wind energy project. In August of 2020, City Council approved

a 30 year Power Purchase Agreement with OCCP for geothermal power sourced from Makushin Volcano.

4. **Reliable and High Speed Internet Support.** *This is an existing and unchanged Legislative Priority (both State and Federal).* Unalaska's internet speeds impede business growth, access to medical services, remote post-secondary education, and our community's overall quality of life. Residents are unable to fully utilize cloud-based systems to improve efficiencies and effectiveness in personal, educational, medical, and business processes. Improving internet services has long been a priority and the City supports programs and activities that help to bridge this digital divide.

5. **Environmental Remediation Support.** *This is an existing and unchanged Legislative Priority (both State and Federal).* Unalaska has several sites that are subject to the Department of Defense's Formerly Utilized Defense Sites environmental program due to contamination during WWII activities, as well as WWII related contamination that is discovered during construction projects today. Assistance and support at the state and Federal levels is critical to mitigating these contaminated areas.

6. **United States Coast Guard Presence.** *This is an existing and unchanged Legislative Priority.* Unalaska appreciates the Coast Guard's long time presence in our community. As marine transportation increases in our region, the Guard's presence is valued more than ever. We encourage the USCG to become an accompanied duty station in Unalaska. Short of that, USCG might also consider offsetting the rotation of the Marine Safety Detachment so that half the team rotates in summer and half the team rotates in winter. We believe this rotation will maintain continuity and established relationships needed to best perform in Unalaska.

7. **United States Military Presence.** *This item has been added based on Council feedback at the work session and in response to numerous voices of support calling for an increased Military presence in Unalaska at City Council meetings.* Unalaska's International Port of Dutch Harbor is in a strategic Arctic location. Council supports an increased local presence of all military branches of the United States. Such presence will increase safety of the Nation and our standing as an Arctic port. It would also assist in the diversification of our local economy.

8. **Artic Port Development in Unalaska.** *This item has been added based on Council feedback at the work session and is in support of Council's vision of becoming an arctic port.* Unalaska's is strategically located and vibrant Arctic Port community. City of Unalaska is home to the International Port of Dutch Harbor, the largest commercial fishing port in the nation. Unalaska/Dutch Harbor is a vital transportation and economic hub that will only because more key as northern shipping routes expand. The Port of Dutch Harbor is the only deep draft, year-round ice-free port from Unimak Pass west to Adak and north to the Bering Strait. Our port has been designated a "Port of Refuge" and provides protection and repair for disabled or distressed vessels as well as ground and warehouse storage and transshipment opportunities for the thousands of vessels that fish or transit the waters surrounding the Aleutian Islands daily. Unalaska is also the home of the western-most container terminal in the United States and is one of the most productive ports for the transshipment of cargo in Alaska. In addition to products shipped domestically to and from this regional hub, the product is shipped to ports around the world with weekly shipments headed to Europe and Asia by container ship and freighter.

Capital Project Funding Support

1. **Captains Bay Road and Utility Improvements Project - $54 Million.** *This is an existing Legislative Priority (both State and Federal), identified on the CMMP and submitted for the State's CAPSIS in 2021. The dollar amount has changed from $52 Million to match the CMMP.* This item is City Council's number one project funding priority.

   Captains Bay Road is the primary transportation route for Westward Seafoods, Alaska Chadux Network (oil spill response), North Pacific Fuel, Trident Seafoods, Alaska Marine Lines, Offshore Systems Inc., Bering Shai Rock and Gravel, and small businesses and residences. This high traffic area is a corridor for pedestrians as well as heavy trucks in the fishing, shipping, and support industries vital to Unalaska's economy. Future growth and business activity is expected to occur along Captains Bay Road.

   This project includes roadway realignment, utility extension and installation, drainage improvements, lighting, walkways and pavement. The current $54M cost addresses all these components. Staff continues to consider how the project might be divided into phases, ideally as standalone projects. Given the large dollar value for the overall project, the State DOT advised us that smaller stand-alone projects would increase our likelihood of funding support in the STIP. We are currently working to complete a formal cost benefit analysis to help quantify and communicate the overall project value the various components bring. This analysis will help us with better project phasing, improve project ranking during the STIP evaluations at the state level, and can be used to support other funding opportunities.

2. **Robert Storrs Boat Harbor Improvements – $9.5 Million.** *This is an existing State Legislative Priority, identified on the CMMP and was submitted for the State's CAPSIS in 2021. Consideration may be given to adding this to the Federal priority list because it is port related infrastructure.* The Robert Storrs Boat Harbor was inherited by the City of Unalaska from the State of Alaska and has served the community well for over 30 years. To ensure the safety of those who use the dock and the vessels that moor at the Storrs Boat Harbor, the floats must be replaced and the dock redesigned. Existing Floats A and B will be removed and reconfigured to accommodate a new float system, ADA gangway, and create uplands for parking and a public restroom. This project includes a fire suppression system, electric, and year round water supply for harbor users. This project qualifies to be a part of State of Alaska's Harbor Facility Grant Program for potential funding support. This is a program that the City of Unalaska has long supported. This reconfiguration will add 30 slips.

3. **Unalaska Marine Center Cruise Ship Terminal - $18.59 Million.** *This is project is identified on the CMMP and was submitted to the State's CAPSIS in 2021. Consideration may be given to adding this to the Federal priority list because it is port related infrastructure and could assist in addressing Council's vision of an Arctic port.* This project will provide an open sheet pile dock with mooring dolphins to the south of Unalaska Marine Center Position 7. Prior to the COVID-19 pandemic, cruise ship activity was on the rise in Unalaska and was proving beneficial to local commerce. Cruise ships do not have dedicated dock space to reserve with certainty; the Unalaska Marine Center is designated for industrial cargo and fishing operations. Unalaska has been fortunate to be able to accommodate most of the cruise ship activity, but space will grow more challenging as passenger counts and vessel calls increase. A cruise ship terminal would allow for dedicated cruise ship berthing and eliminate safety issues created from passengers walking through and around cargo operations. During the off season for cruise ships, this facility could be used for fishing vessel offloads. A cruise ship

terminal will provide an additional revenue opportunity and still bolster commerce through committed berthing for the cruise ship industry.

4. **LCD and UMC Dredging - $6.65 Million.** *This project is identified on the CMMP. Consideration may be given to adding this to the Federal priority list because it is port related infrastructure and could assist in addressing Council's vision of an Arctic port.* The completion of this dredging will enhance current and future port operations by creating usable industrial dock face that is designed for vessels in varying lengths, draw and tonnage. This project includes the engineering, permitting, and dredging at the faces of the Light Cargo Dock and the Unalaska Marine Center positions 1-7. It will compliment other capital projects in the Port, namely the dredging of the entrance channel. Larger vessels will be able to enter into Dutch Harbor and the depth of the dock face must facilitate the new traffic. The depths at the Unalaska Marine Center vary from -32 and -45 at MLLW. Dredging at the face of the Unalaska Marine Center would create a constant -45 from Positions 1-7. This will accommodate deeper draft vessels throughout the facility. The existing sheet pile is driven to approximately -58 and dredging to -45 will not undermine the existing sheet pile. This project is primarily to accommodate large class vessels. Many of the vessels currently calling the Port must adjust ballast to cross the entrance channel and dock inside the harbor. 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 insert another vessel in between the dock face and their vessel in order to get enough water under the keel.

5. **Makushin Geothermal Interconnection Projects - $5.7 Million.** *This project is directly related to a long time Council priority supporting alternative energy, identified on the CMMP and is required per the PPA with OCCP. Consideration may be given to adding this to the Federal priority list because it is utility related infrastructure and could help address Council's recently identified focus on geothermal power and natural resources.* This project is the City of Unalaska's estimated portion of reliability upgrades for the City's electrical distribution system required to accept energy from the Makushin geothermal plant. It requires connecting multiple self-generating industrial customers to the current distribution system, installs more robust intermediate level protections, replaces the aging submarine cable at Iliuliuk Bay, upgrades numerous feeder connections and substations, and improves the current SCADA system and automated controls. This project includes a set aside for legal and consulting fees associated with implementation. A more accurate budget will be determined upon the completion of the interconnection study and after the implications are fully understood. Based on study findings, there may be a Phase II project to accomplish the required upgrades.

6. **Solid Waste Gasifier - $8.3 Million.** *This project is identified on the CMMP. Consideration may be given to adding this to the Federal priority list because it is utility related infrastructure, and could help address Council's recently identified focus on natural resources.* Current active landfill cells are projected to reach capacity in five or six years. The City of Unalaska worked with the DOE National Renewable Energy Laboratory (NREL) to consider the best waste minimization technology pathway for our location. Combustion, pyrolysis, hydrothermal liquification, gasification, and anaerobic digestion were all considered, factoring in environmental impacts, complexity, waste reduction potential, initial capital costs, and on-going operating costs. Gasification, anaerobic digestion, or a combination of the two processes was deemed to be the best long-term solution. A solid waste gasifier would work for approximately 86% of Unalaska's total waste stream, and could be used to dispose of bales already buried in the landfill cells, vastly increasing the current location's projected lifespan. In keeping with our commitment to clean geothermal power and an overarching goal of becoming carbon neutral, the City is seeking a technology provider that can offer a plant

design that uses the syngas production from the gasification process to pre-dry the feedstock, reducing the diesel needed to reach a self-sustaining steady-state operation. Assistance and support at the State and Federal level will help minimize possible landfill fee increases required to fund the construction of this capital project. Operating costs will be eventually recovered by extending the landfill lifespan; each year of additional capacity is valued at $1.1 million dollars.

ALTERNATIVES: Council may choose to edit, add or remove priorities.

FINANCIAL IMPLICATIONS: No direct financial impact is associated with the discussion.

LEGAL: None needed.

STAFF RECOMMENDATION: Staff recommends approval.

PROPOSED MOTION: I move to adopt Resolution 2021-67.

CITY MANAGER COMMENTS: This final list was generated based on Council's feedback. I thank the city team for the assistance in getting this information together.