CITY OF CRAIG
COUNCIL AGENDA
AUGUST 2, 2018
COUNCIL CHAMBERS 7:00 PM

ROLL CALL

Mayor Tim O'Connor, Dave Creighton, Don Pierce, Jim See, Julie McDonald, Mike Douville, Jan Trojan

CONSENT AGENDA

Items listed below will be enacted by one motion. If separate discussion is desired on an item, that item may be removed and placed on the regular meeting agenda.

- City Council Meeting Minutes of June 21, 2018
- Introduction and First Reading of Ordinance 713, Changes to the Sales tax Code
- Introduction and First Reading of Ordinance 714, FY18 Supplemental Budget

HEARING FROM THE PUBLIC

- Open for public comment
- Resolution 18-16, Authorizing the Exemption of Seasonal Employees from Participation in the State of Alaska Public Employees Retirement System

REPORTS FROM CITY OFFICIALS

Mayor
Administrator
Treasurer
Aquatic Manager
City Clerk
City Planner
Fire/EMS Coordinator
Harbormaster
Library
Police Chief
Public Works
Parks and Rec
Parks and Public Facilities

READING OF CORRESPONDENCE

- APCM June Report
- SE Conference Draft Meeting Agenda
- Public Notice Shaan Seet Marine Access Facility

CONSIDERATION OF RESOLUTIONS AND ORDINANCES

- Resolution 18-16, Authorizing the Exemption of Seasonal Employees from Participation in the State of Alaska Public Employees Retirement System

CITY OF CRAIG
COUNCIL AGENDA
AUGUST 2, 2018
COUNCIL CHAMBERS 7:00 PM

UNFINISHED BUSINESS

NEW BUSINESS

- Consider Adoption Craig Multi Hazard Mitigation Plan

ADJOURNMENT

CITY OF CRAIG
COUNCIL MEETING
THURSDAY JUNE 21, 2018

ROLL CALL

Mayor Tim O'Connor called the meeting to order at 7:00 p.m. and the roll was taken. Present were, Jan Trojan, Dave Creighton, Jim See and Mike Douville. Absent excused was Don Pierce and Julie McDonald.

Staff present: Jon Bolling, City Administrator; Kassi Mackie, City Clerk; Joyce Mason, Treasurer; Brian Templin, City Planner.

Audience present: Richard Trojan, Jack Walsh, Marshall Eggen, Pat Tyner, Millie Schoonover, Anna Gutherie, Barbi Armstrong, Lisa Radke, Andy Deering

CONSENT AGENDA

None

Jim See would like to discuss the Harbor Rate Resolution again. Determining Craig residency is becoming an administrative burden.

HEARING FROM THE PUBLIC

- **Resolution 18-13, Adopting POWCAC Resolution 18-02**

Richard Trojan was present to discuss his items on the agenda.

Jack Walsh thanked the council and city staff for all the hard work for the school district in his time in Craig.

Mike Douville asked about the Port St. Nicholas Road and the City's interest in it. Jon explained that Shaan Seet retained the easement where the road traversed. Property owners own surface estate. Where the property veers outside property lines, is a different type of ownership. The City has the title to the easement, and an ownership interest in the road. The city is responsible for management of the road and keeping the road clear from obstructions.
Mike explained that there have been two accidents in the same place on Port St. Nicholas, and the person is parking on the fog line on an "S" curve portion of the road. Mike would like to do something about residents parking so closely to the white line. Jon replied that there is nothing really that the City can do, aside from remind residents that the regulation is 8-10 feet from the highway. Jim See believes that 8 feet from the highway is a reasonable request.

Jim would like to consider getting a different imprint number for fish coming through Craig so that the City can get the credit for Raw Fish Tax. The council is prepared to sponsor a resolution for the two-year access permit for SPC.

READING OF CORRESPONDENCE

- Reuters Story on Health Care Costs
- Richard Trojan re: Use of Anchorage Consumer Price Index
- From Seafood Producers Cooperative requesting two-year access permit at City Dock

CONSIDERATION OF RESOLUTIONS AND ORDINANCES

Resolution 18-13, Adopting POWCAC Resolution 18-02

DOUVILLE/TROJAN moved to approve Resolution 18-13.
MOTION CARRIED UNANIMOUSLY BY ROLL CALL VOTE

UNFINISHED BUSINESS

Update on Agreement with Craig Tribal Association

Staff has been working with the Craig Tribe to complete a Memorandum of Agreement and Cooperative Agreement. Mike Douville commented that the tribe is unable to begin building until the cooperative agreement is in place. Therefore, Mike believes that the cooperative agreement should be passed as soon as possible. Anna Gutherie commented on behalf of the Tribe and is prepared to move forward with this project. The City and Tribe have not come to an agreement on the wording for the presence of law enforcement on the tribal land. Staff from both entities will work together through the weekend to resolve the issues and the council determined that a special meeting Monday, June 25th may be warranted to approve the agreements.

Request for Cooperation Agreement with Tlingit & Haida Regional Housing Authority

DOUVILLE/SEE moved to approve cooperation agreement between Tlingit and Haida Regional Housing Authority.
MOTION CARRIED UNANIMOUSLY

Update on Tanner Crab Court Subdivision Playground

Doug is working on the covered area plans for the Tanner Crab playground and has replaced the defective swing with a toddler swing seat. Jim would like to take a look next budget cycle for purchasing new equipment.

Discussion of Harbor Rates Resolution

Jim See commented that determing residency is going to be a burden for the administrative staff. Jim would like to bring a revised rate schedule in resolution form before the council at the next meeting.

NEW BUSINESS

Consider action on Leases of City Property to Trojan & Son

Richard Trojan has collected quotes for spill insurance for the vessel that will be operating.

Staff is satisfied with the insurance coverage for this type of event. Mike Douville asked if there was any compelling reason to sell city property. Jon explained that most all of the lease agreements include an option to buy as a matter of policy. This can be changed, but Richard proceeded with the intent to purchase land. Mike Douville commented that it is more profitable to lease land than to sell land. Richard Trojan reported large payments over time that he believed would apply towards purchasing the property. Richard would like to proceed with a purchase option and asks the council to consider it.

Consider Approval of Ice House Agreement with SPC

DOUVILLE/TROJAN moved to approve the 2018 Craig Public Ice House Agreement with Seafood Producers Cooperative.
MOTION CARRIED UNANIMOUSLY

ADJOURNMENT

DOUVILLE/TROJAN moved to adjourn at 8:25 p.m.
MOTION CARRIED UNANIMOUSLY

APPROVED_____

_____ATTEST_____

MAYOR TIMOTHY O'CONNOR KASSI MACKIE, CITY CLERK

CITY OF CRAIG
MEMORANDUM

To: Craig City Council
From: Jon Bolling, City Administrator
Date: July 27, 2018
RE: Ordinance No. 713

Attached you will find Ordinance No. 713. The ordinance is presented here for first reading.

Councilman Mike Douville asked that this item be placed on the agenda. Mike can elaborate on his view of the need for the ordinance, as he did at the council's July 19 meeting.

In short, the ordinance asks the voters to approve an increase in the city's sales tax rate from five to six percent. The ballot measure wording in the ordinance specifies that the revenue brought in by the increase is dedicated for use at the Craig Aquatic Center. If approved by the city council before the deadline to set the 2018 municipal election ballot, the measure could appear before voters in October.

History of Sales Tax Rate

A summary of voter-approved sales tax increases since 1974 is below. Other rate changes were considered but not approved. See Attachment A.

- November, 1974: Craig voters approve a sales tax rate of 3%.
- October 1983: Craig voters approved an increase in the sales tax rate to be used to maintain a swimming pool. However that particular pool project was not built so the sales tax increase approved by the electorate was not implemented.
- August 1984: Craig voters approve increasing the sales tax on liquor to six percent.
- October 1988: Craig voters approve a one percentage point increase in the sales tax (from three percent to four percent) to support the school district.
- October 1992: Craig voters approve an increase in the sales tax rate to five percent. The tax increase was implemented in 1995, when the pool construction project began. The wording on the ballot specified that the additional sales tax collected would be used one half for the pool, and one half for other recreational activities. See Attachment B.
- October 2017: Craig voters approved a bed tax of $5 per night per occupied room, and a ten percent tax on the retail sale of marijuana products.

Currently every one percentage point of sales tax generates about $300,000 per year.

As a result of past voter approvals, of Craig's five percent sales tax rate, one fifth of that amount (one percentage point) is designated for school support. One half percentage point is designated for the pool, and one half percentage point is designated for other recreation, meaning that two-fifths of the five percent rate is limited in how it may be used.

Ordinance 713

The ordinance would increase support for the pool by one percentage point. The graphic below delineates the current and proposed designations for sales tax receipts.

Current Designation		**Proposed Designation**	
School Support	1.0%	School Support	1.0%
Aquatic Center Support	0.5%	Aquatic Center Support	1.5%
Recreation Support	0.5%	Recreation Support	0.5%
Undesignated	3.0%	Undesignated	3.0%
Tax rate	**5.0%**	**Tax Rate**	**6.0%**

Table 1 below displays the sources and designated use of city sales tax currently, and the designated uses of sales tax receipts if Ordinance 713 is adopted by the council and subsequently approved by voters residing in Craig.

Table 1

	Sales Tax Rate	Revenue Generated	Designated For Pool	Designated for Schools	Designated for Recreation	Undesignated
Current	5%	$1,500,000	$150,000	$300,000	$150,000	$900,000
Proposed	6%	$1,800,000	$450,000	$300,000	$150,000	$900,000

Table 2 below summarizes the revenues and expenditures for the aquatic center for the current fiscal year, and the prior four fiscal years.

Table 2

	2015	2016	2017	2018	2019	Average
Expense	$540,111	$478,465	$441,795	$498,091	$661,056	**$523,904**
Revenue	$67,089	$49,917	$49,457	$43,692	$55,000	**$53,031**
Diference	($473,022)	($428,548)	($392,338)	($454,399)	($606,056)	**($470,873)**
Note: FY 2019 numbers are preliminary.						

The expense row in Table 2 includes all operating and debt service expenses. As the tables show, on some occasions the amount of expenses over revenue at the aquatic center is less than the projected revenue resulting from implementation of Ordinance 713. If the sales tax increase is ultimately implemented, in those years where the tax revenue designated for the aquatic center is greater than the department's deficit, staff would hold the excess in a reserve account for later use at the pool. The ballot language in the ordinance allows the proposed revenue to be used for operational or capital expenses at the aquatic center.

As noted on page 1, an increase in the rate of sales tax requires approval by Craig voters after adoption of a rate increase ordinance by the city council. It is possible to place the item before Craig voters at the October municipal election of the council approves Ordinance 713 in time. If all approvals are complete by this fall's municipal election, the new tax rate would take effect January 1, 2019.

Recommendation

Consideration of a sales tax increase, and how best to fund aquatic center and overall city operations, is an important policy call for the council. I recommend that the council pull this item from the consent agenda for discussion under the "Consideration of Resolutions and Ordinances" agenda item.

Sponsor: Councilman Michael Douville

CITY OF CRAIG
ORDINANCE NO. 713

MODIFYING SALES TAX CODE (3.08)
TO INCREASE SALES TAX RATE TO SIX PERCENT (6%)

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CRAIG, ALASKA:

Section 1. Classification. Section 4 of this ordinance is of a general and permanent nature and shall become a part of the Craig Municipal Code (CMC).

Section 2. Severability. If any provision ofthis ordinance or its application to any person or circumstance is held invalid, the remainder of this ordinance_and the application to other persons or circumstances shall not be affected thereby.

Section 3. Effective Date. (a) Section 4 of this ordinance changing CMC 3.08.020.B, shall become effective on January 1, 2019, if the proposition required by Section 5 of this ordinance is approved by a majority of the qualified voters of the City voting on the proposition at the regular municipal election scheduled for October 2, 2018.

(b) Section 5 of this ordinance authorizing the submission of the ballot proposition to the qualified voters of the City of Craig, shall be effective immediately upon adoption of this ordinance.

Section 4. Action. This ordinance amends 3.08.020 (B) by deleting those words that are capitalized and in brackets and adding those that are underlined as follows:

3.08.020 Levy of sales tax - rate. (B). The tax is levied in the amount of [FIVE] six percent of the sales price of all retail sales made, of all rents paid and of the amount paid for services performed within the city.

Section 5. Election. At the regular election to be held on October 3, 2017, the following question shall be placed before the qualified voters of the City of Craig:

PROPOSITION NO.
SALES TAX

Shall the City of Craig, Alaska increase its sales tax rate from five percent to six percent, if the sales tax revenue generated by the rate increase is dedicated to funding the Craig Aquatic Center?

YES [ ]

NO [ ]

APPROVED this _____ day of _____, 2018.

_____ ATTEST: _____
MAYOR TIMOTHY O'CONNOR KASSI MACKIE - CITY CLERK

ATTACHMENT A

SPECIAL ELECTIONS
CITY OF CRAIG

5-10-88 Proposed 1% sales tax increase for Craig School Use
yes - 120 no - 44 - passed

10-6-87 That sales tax be increased by 1% (from 3% to 4%). Proceeds to be used for school support as required by State Law (4 mill equivalent) yes - 89 no - 112 - failed

10-7-86 During the regular election a 1% sales tax increase was proposed to help with the school budget that had been cut due to a cut in the Government Budget. After a recount it was discovered it was a tie (yes - 121 & no - 121) so as they were having a run-off election on 10-21-86 for one of the council seats they put it back on the ballot and it failed - yes - 71 & no - 138.

8-28-84 Increase sales tax on liquor sales to 6% - yes - 144
no - 83 passed

10-11-83 During a run-off election there were three propositions to increase the sales tax for maintaining a swimming pool. Never got funding for the pool so the increase was never implemented.

1.	yes - 205	no - 108
2.	yes - 178	no - 121
3.	yes - 204	no - 101

8-16-83 School Board Recall

Shawn Christensen	yes - 83	no - 102	
Kim Patotzka	yes - 84	no - 100	
Merle Snavley	yes - 85	no - 101	
Audrey Staub	yes - 59	no - 127	
Judy O'Connor	yes - 95	no - 88	This one recalled

1-11-83 - Proposed Sales Tax Increase to 5% - Failed

4-27-82 For unexpired term of Mayor Robert Rae - Lee Axmaker won

3-27-80 For construction of a cultural facility - yes - 50, no - 16 (never got funding so never built)

11-5-74 Proposed Sales Tax Increase to 3% - passed

CITY OF CRAIG
MEMORANDUM

July 27, 2018

To: City Council

From: Joyce Mason, Treasurer

Re: Supplemental Budget

Attached is the ordinance to adopt the supplemental budget for fiscal year, 2018. According to AS 29.35.100 a supplemental budget is prepared to authorize payments of appropriations not previously approved in the original budget.

The highlights of the changes for the supplemental budget are as follows:

- The General Fund revenues were higher than expected. Sales tax receipts were $63,000 higher than anticipated, State payments (PILT, Revenue sharing, and the jail contract) were higher than anticipated.
- The personnel cost exceeded original budget due to the June 2018 bonus given to the employees.
- Contract services increased because of higher legal fees and technical services.
- Maintenance on the city's building and vehicles continues to be costly.
- Jail costs, including food, were 32% higher than originally planned.
- Fuel costs are raising and will continue to in fiscal year 2019.
- Utilities costs at the aquatic center were higher than normal, especially the propane, which was budgeted at $20,000 and $30,634 was expended.
- The Enterprise fund has a net gain due to the leases at the JT Brown industrial park.
- The water department struggles to meet expensed with a loss of over $92,000.
- The harbor department revenues did not provide enough for the expenses.
- With the additional revenues the city should have an excess after expenses of $200,000.

Enclosed is also a worksheet that details the comparison of the original budget and the supplemental budget for your information.

Recommendation: Approve first reading of Ordinance number 714, FY 2018 Supplemental Budget.

CITY OF CRAIG

ORDINANCE NO. 714

PROVIDING FOR THE ADOPTION OF THE FISCAL YEAR 2018 SUPPLEMENTAL OPERATING BUDGET

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CRAIG:

Section 1. Classification. This ordinance is a non-code ordinance and is not of a general and permanent nature and shall not become a part of the code of the City of Craig, Alaska.

Section 2. Effective Date. This ordinance shall become effective immediately upon adoption.

Section 3. Authorization and Appropriation. The appropriations identified in "Attachment A" hereto are adopted and authorized for the period of July 1, 2017 through June 30, 2018 and are the budget for that period. The Administrator may modify line item expenditures within an authorized appropriation to another line item in any amount which would not annually exceed ten (10) percent or $10,000, whichever is more.

Section 4. Unexpended Balances. All unexpended balances lapse as of June 30, 2018.

APPROVED this ____ day of _____, 2018.

_____
MAYOR TIM O'CONNOR

_____
ATTEST: KASSI MACKIE, CITY CLERK

Attachment A

City of Craig
FY 2018 Supplemental Budget
June 2018

General Fund	Revised Budget	Original Budget	Change
Total Revenues	$ 3,542,961	$ 3,257,026	$ 285,935
Expenditures			
Administration	686,840	668,859	17,981
Aquatic Center	512,434	498,091	14,343
Council	82,650	100,741	(18,091)
EMS	206,705	172,932	33,773
Facilities & Parks	319,820	252,932	66,888
Fire	19,590	29,195	(9,605)
Library	129,380	125,293	4,087
Planning	70,490	84,848	(14,358)
PS Hatchery	65,000	45,000	20,000
Police	917,950	899,301	18,649
Public Works	310,020	282,246	27,774
Recreation	98,931	99,366	(435)
Total General Fund Expenditures	3,419,810	3,258,804	161,006
Net Assets before Transfers	$ 123,151	$ (1,778)	$ 124,929
Transfers			
To the School Saving Account	(200,000)	(200,000)	0
From the Enterprise Fund	92,860	30,779	62,081
From Endowment Fund	135,000	135,000	0
Transfer From Equipment Reserve	58,232	51,600	6,632
Net Assets	$ 209,243	$ 15,601	193,642

Attachment A

City of Craig
FY 2018 Supplemental Budget
June 2018

Enterprise Fund	Revised Budget	Original Budget	Change
Revenue			
Sewer Fees	$ 352,640	$ 276,000	$ 76,640
Water Sales	298,975	301,300	(2,325)
Garbage Fees	302,000	303,000	(1,000)
Harbor Services	270,334	225,000	45,334
JTB Industrial Services	452,100	433,031	19,069
Cannery Revenue	7,900	6,000	1,900
Total Revenue	1,683,949	1,544,331	139,618
Expenses			
Sewer Expenses	316,616	278,600	38,016
Water Expenses	391,435	408,774	(17,339)
Garbage Expenses	278,353	298,243	(19,890)
Harbor Expenses	328,070	261,867	66,203
JTB Industrial Park Expens	273,765	259,804	13,961
Cannery Expenses	2,850	6,264	(3,414)
Total Fund Expenses	1,591,089	1,513,552	77,537
Net Revenue Over Expense	92,860	30,779	62,081
Transfer to General Fund	(92,860)	(30,779)	
Change in Net Assets	$ -	$ -	

City of Craig, Inc.
15 Craig Gov Revenue Supp Budget
June 30, 2018

	Revised Budget	Budget	Variance	Y-T-D Actual
01 00.4000.00 000 Property Tax	626,000	620,000	6,000	626,016
01 00.4050.00 000 Sales Tax	1,560,000	1,497,000	63,000	1,559,386
01 00.4055.00 000 Delinquent Sales Tax	700	2,000	(1,300)	719
01 00.4060.00 000 Liquor Sales Tax	113,500	120,000	(6,500)	113,732
01 00.4065.00 000 Transient Room Tax	5,000	0	5,000	3,080
01 00.4070.00 000 Property Tax Penalties	5,900	2,000	3,900	5,951
01 00.4080.00 000 Sales Tax Penalties	1,200	0	1,200	1,374
Total Local Taxes	**2,312,300**	**2,241,000**	**71,300**	**2,310,258**
01 00.4100.00 000 Property PILT Funding	287,940	265,500	22,440	287,940
01 00.4110.00 000 State Revenue Sharing	102,302	89,842	12,460	102,302
01 00.4111.00 000 Liquor Revenue Sharing	52,000	5,000	47,000	5,200
01 00.4112.00 000 Fish Bus Tax - DOR	37,960	50,000	(12,040)	37,961
01 00.4120.00 000 Shared Fish Tax - DCED	4,270	4,000	270	4,272
01 00.4142.00 000 Revenue, Small GF Grants	1,000	0	1,000	1,000
01 00.4143.00 000 Revenue, State Grant	375	0	375	375
Total State Revenue	**485,847**	**414,342**	**71,505**	**439,050**
01 00.4220.00 000 EMS Service Fees	50,000	30,000	20,000	84,411
01 00.4250.00 000 EMS Training Fees	2,700	1,000	1,700	2,700
01 00.4260.00 000 Aquatic Center Revenue	43,000	50,000	(7,000)	43,692
01 00.4270.00 000 Library Fees	1,100	1,000	100	1,186
01 00.4275.00 000 Recreation Revenue	17,000	12,000	5,000	17,676
01 00.4280.00 000 Senior Card Fees	13,000	1,000	12,000	13,430
01 00.4620.00 000 Taxi Permit Fees	0	100	(100)	0
01 00.4640.00 000 Building Permit Fees	1,300	1,000	300	1,360
01 00.4644.00 000 Access Permit Fees	10,000	7,000	3,000	10,410
Total Permits & Fees	**138,100**	**103,100**	**35,000**	**174,865**
01 00.4300.00 000 Property Lease/Rentals	67,770	72,000	(4,230)	67,774
01 00.4400.00 000 Material Sales	0	1,000	(1,000)	0
01 00.4410.00 000 Equipment Sales	9,500	0	9,500	9,589
01 00.4450.00 000 K Salmon Hatchery Support	20,537	0	20,537	20,537
Total Local Revenue	**97,807**	**73,000**	**24,807**	**97,900**
01 00.4700.00 000 Police-Fines,Citation	14,000	10,000	4,000	14,082
01 00.4701.00 000 Aminal Impound Fees	0	0	0	195
01 00.4703.00 000 Motor Vehicle Commision	70,000	60,000	10,000	71,552
01 00.4704.00 000 Dog Licenses	0	0	0	45
01 00.4650.00 000 State Trooper Dispatch	7,750	10,000	(2,250)	7,750
01 00.4660.00 000 State Jail Contract Revenue	353,657	286,584	67,073	353,657
01 00.4665.00 000 Klawock Dispatch	53,000	50,000	3,000	53,088
01 00.4670.00 000 Forest Service Dispatch	3,000	3,000	0	3,000
Total Public Safety Funds	**501,407**	**419,584**	**81,823**	**503,369**
01 00.4800.00 000 Interest Income (CKNG & CD)	0	0	0	12
01 00.4820.00 000 Interest Income (A/R)	4,000	1,000	3,000	4,058
01 00.4830.00 000 Misc Revenue Convenience Fees	0	5,000	(5,000)	0
01 00.4900.00 000 Misc Revenue	1,500	0	1,500	1,535
01 00.4910.00 000 Donations Received	2,000	0	2,000	2,050
Total Other Revenue	**7,500**	**6,000**	**1,500**	**7,655**
Total Revenues	**$ 3,542,961**	**$ 3,257,026**	**$ 285,935**	**$ 3,533,097**

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Administration				
Expenses				
Personnel Wages				
Salary Expense	173,637.69	174,000.00	164,000.00	(10,000.00)
Full Time Wages	108,442.50	109,000.00	122,200.00	13,200.00
Hourly-Part Time	31,175.98	31,200.00	25,355.00	(5,845.00)
Overtime	2,434.89	2,500.00	0.00	(2,500.00)
Seasonal/Temp. Hourly	336.00	0.00	0.00	0.00
Vacation	23,447.68	23,500.00	0.00	(23,500.00)
Sick Leave	4,051.06	4,000.00	0.00	(4,000.00)
Total Personnel Wages Expenditures	343,525.80	344,200.00	311,555.00	(32,645.00)
Personnel Benefits				
Health Insurance	25,948.99	24,120.00	78,764.00	54,644.00
Social Security Taxes	25,641.33	25,900.00	23,834.00	(2,066.00)
PERS	64,835.93	65,000.00	62,964.00	(2,036.00)
Other Compensation Expenses	(450.60)	320.00	1,787.00	1,467.00
Total Personnel Benefits Expenditures	116,125.04	115,490.00	167,349.00	51,859.00
Contract Services				
Professional Services, Admin	42,709.05	43,000.00	36,000.00	(7,000.00)
Prof Svc, Auditing Admin	33,556.92	34,000.00	40,000.00	6,000.00
Prof Svc, Assessors Admin	26,490.00	26,500.00	23,000.00	(3,500.00)
Litigation, Admin.	19,772.00	20,000.00	12,000.00	(8,000.00)
Technical Services - Admin	5,229.84	5,300.00	1,500.00	(3,800.00)
Computer/Techincal Services - Admin	18,925.18	19,000.00	14,000.00	(5,000.00)
Total Contract Services Expenditures	146,682.99	147,800.00	126,500.00	(21,300.00)
Education & Travel				
Travel & Per Diem, Admin	8,683.70	8,700.00	4,000.00	(4,700.00)
Education & Trainning, Admin	399.00	400.00	900.00	500.00
Safety Training, Admin	0.00	0.00	2,000.00	2,000.00
Association Dues, Admin	2,995.00	3,000.00	3,845.00	845.00
Total Education & Travel Expenditures	12,077.70	12,100.00	10,745.00	(1,355.00)
Matereials & Supplies				
Materials & Supplies, Admin	7,892.67	8,100.00	8,000.00	(100.00)
Materials & Supplies - Safety	181.50	0.00	0.00	0.00
Materials & Supplies, Office	21.99	0.00	0.00	0.00
Postage, Admin	3,311.55	3,400.00	4,000.00	600.00
Freight, Admin	1,342.56	1,400.00	0.00	(1,400.00)
BOOKS & SUBSCRIP, ADMIN	942.56	1,000.00	0.00	(1,000.00)
Vehicle, Fuel, Admin	680.13	700.00	500.00	(200.00)
Total Matereials & Supplies Expenditures	14,372.96	14,600.00	12,500.00	(2,100.00)
Utilities				
Electricity, Admin	5,561.99	5,600.00	5,850.00	250.00
Heating Fuel, Admin	5,335.88	5,400.00	4,000.00	(1,400.00)
Telephone, Admin	6,793.72	6,800.00	7,000.00	200.00
Total Utilities Expenditures	17,691.59	17,800.00	16,850.00	(950.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Maintenance				
Maintenance Expenditures	0.00	0.00	1,000.00	1,000.00
Maintenance Lease Expenditures	1,174.80	1,200.00	1,308.00	108.00
Building Maintenance Expenditures	76.94	100.00	0.00	(100.00)
Total Maintenance Expenditures	1,251.74	1,300.00	2,308.00	1,008.00
Other Expenditures				
PERMITS, ADMIN	50.00	50.00	0.00	(50.00)
PUBLICATIONS, ADMIN	685.00	685.00	700.00	15.00
RECORDING, ADMINISTRATION	20.00	20.00	200.00	180.00
INSURANCE, ADMINISTRATION	6,985.59	7,000.00	5,345.00	(1,655.00)
CONTRIBUTIONS, ADMINISTRATION	10,050.00	10,050.00	9,790.00	(260.00)
ELECTRICITY CONTRIB, ADMIN	1,591.99	1,600.00	3,000.00	1,400.00
HEAT FUEL CONTRIB, ADMIN	2,819.38	2,800.00	0.00	(2,800.00)
BANK FEES	617.85	620.00	0.00	(620.00)
CC FEES, ADMIN	2,334.60	2,350.00	17.00	(2,333.00)
BAD DEBTS, ADMINISTRATION	243.66	250.00	0.00	(250.00)
OTHER EXPENSES, ADMINISTRATION	646.81	650.00	0.00	(650.00)
MISCELLANEOUS	2,386.04	2,400.00	0.00	(2,400.00)
Total Other Expenditures	$ 28,430.92	$ 28,475.00	$ 19,052.00	$ (9,423.00)
Equipment				
SM EQUIP PURCH, ADMIN	4,901.59	4,900.00	2,000.00	(2,900.00)
EQUIPMENT PURCHASE >5000, ADMIN	0.00	0.00	0.00	0.00
CAPTIAL IMPROVEMENTS	163.80	175.00	0.00	(175.00)
Total Equipment	5,065.39	5,075.00	2,000.00	(3,075.00)
Capital Expenditures				
Total Expenses	685,224.13	686,840.00	668,859.00	(17,981.00)
Excess Revenue Over (Under) Expenditures	$ (685,224.13)	$ (686,840.00)	$ (668,859.00)	$ (17,981.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Current	Revised Budget	Variance	Current Year Budget
Council				
Expenses				
Personnel Wages				
Salary Expense	13,276.11	14,000.00	723.89	14,700.00
Total Personnel Wages Expenditures	13,276.11	14,000.00	723.89	14,700.00
Personnel Benefits				
Health Insurance	50,676.56	50,960.00	283.44	78,692.00
Social Security Taxes	854.13	875.00	20.87	1,124.00
PERS	4,930.58	5,000.00	69.42	2,970.00
Other Compensation Expenses	162.52	170.00	7.48	455.00
Total Personnel Benefits Expenditures	56,673.79	57,005.00	331.21	83,241.00
Contract Services				
Contract Labor, COUNCIL	120.00	120.00	0.00	0.00
Elections, Council	525.00	525.00	0.00	2,500.00
Total Contract Services Expenditures	645.00	645.00	0.00	2,500.00
Education & Travel				
Travel & Per Diem, COUNCIL	7,012.86	7,250.00	237.14	0.00
Education & Trainning, COUNCIL	250.00	250.00	0.00	0.00
Association Dues, COUNCIL	50.00	50.00	0.00	0.00
Total Education & Travel Expenditures	7,312.86	7,550.00	237.14	0.00
Matereials & Supplies				
Materials & Supplies, Council	1,367.98	1,400.00	32.02	0.00
Total Matereials & Supplies Expenditures	1,367.98	1,400.00	32.02	0.00
Utilities				
TELEPHONE, COUNCIL	8.92	0.00	(8.92)	0.00
Total Utilities Expenditures	8.92	0.00	(8.92)	0.00
Maintenance				
Other Expenditures				
INSURANCE, COUNCIL	324.00	325.00	1.00	300.00
OTHER EXPENSES, COUNCIL	25.00	25.00	0.00	0.00
Total Other Expenditures	$ 349.00	$ 350.00	$ 1.00	$ 300.00
Equipment				
EQUIPMENT PURCHASE, COUNCIL	1,642.41	1,700.00	57.59	0.00
EQUIP PURCH > $5000, COUNCIL	0.00	0.00	0.00	0.00
Total Equipment	1,642.41	1,700.00	57.59	0.00
Capital Expenditures				
Total Expenses	81,276.07	82,650.00	1,373.93	100,741.00
Excess Revenue Over (Under) Expenditures	$ (81,276.07)	$ (82,650.00)	$ 1,373.93	$ (100,741.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Current	Revised Budget	Variance	Current Year Budget
Planning				
Expenses				
Personnel Wages				
Salary Expense	61,561.55	46,600.00	(14,961.55)	41,619.00
Salary Expense	(22,582.50)	0.00	22,582.50	0.00
Vacation	5,625.58	0.00	(5,625.58)	0.00
Total Personnel Wages Expenditures	44,604.63	46,600.00	1,995.37	41,619.00
Personnel Benefits				
Health Insurance	237.04	200.00	(37.04)	23,331.00
Social Security Taxes	5,411.28	5,450.00	38.72	4,332.00
PERS	14,909.13	15,000.00	90.87	12,456.00
Other Compensation Expenses	377.00	400.00	23.00	270.00
Total Personnel Benefits Expenditures	20,934.45	21,050.00	115.55	40,389.00
Contract Services				
Professional Services, PLANNING	374.40	400.00	25.60	0.00
Contract Labor, PLANNING	40.00	40.00	0.00	0.00
Total Contract Services Expenditures	414.40	440.00	25.60	0.00
Education & Travel				
Matereials & Supplies				
Materials & Supplies, Planning	949.49	1,000.00	50.51	1,000.00
Total Matereials & Supplies Expenditures	949.49	1,000.00	50.51	1,000.00
Utilities				
Maintenance				
Other Expenditures				
PUBLIC/ADV, PLANNING	727.50	1,000.00	272.50	1,000.00
RECORDING, PLANNING	45.00	100.00	55.00	500.00
INSURANCE, PLANNING	276.00	300.00	24.00	284.00
Total Other Expenditures	$ 1,048.50	$ 1,400.00	$ 351.50	$ 1,784.00
Equipment				
SM EQUIP PURCH, PLANNING	0.00	0.00	0.00	0.00
EQUIPMENT PURCHASE > $5000, PLANNING	0.00	0.00	0.00	0.00
CAPITAL IMPROVEMENTS	0.00	0.00	0.00	0.00
Capital Expenditures				
Total Expenses	67,951.47	70,490.00	2,538.53	84,792.00
Excess Revenue Over (Under) Expenditures	$ (67,951.47)	$ (70,490.00)	$ 2,538.53	$ (84,792.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Parks &Facilities				
Expenses				
Personnel Wages				
Salary Expense	70,100.00	70,100.00	65,000.00	(5,100.00)
Full Time Wages	40,180.45	40,200.00	41,579.00	1,379.00
Hourly-Part Time	0.00	0.00	10,406.00	10,406.00
Seasonal/Temp. Hourly	10,080.00	11,000.00	0.00	(11,000.00)
Vacation	6,915.48	7,000.00	0.00	(7,000.00)
Sick Leave	1,781.12	1,800.00	0.00	(1,800.00)
Total Personnel Wages Expenditures	129,057.05	130,100.00	116,985.00	(13,115.00)
Personnel Benefits				
Health Insurance	53,245.15	53,900.00	57,243.00	3,343.00
Social Security Taxes	8,956.57	9,000.00	8,949.00	(51.00)
PERS	24,361.08	24,500.00	23,447.00	(1,053.00)
Other Compensation Expenses	6,035.74	6,100.00	6,383.00	283.00
Total Personnel Benefits Expenditures	92,598.54	93,500.00	96,022.00	2,522.00
Contract Services				
Professional Services, Facilities	75.00	0.00	7,200.00	7,200.00
Contract Labor, Facilities	4,180.00	10,700.00	0.00	(10,700.00)
Contract Labor, Facilities - Child Care Center	215.00	0.00	0.00	0.00
Contract Labor, Facilities - City Hall	76.00	0.00	0.00	0.00
Contract Labor, Facilities - Medical Clinic	1,494.00	0.00	0.00	0.00
Contract Labor, Facilities -Shop	150.00	0.00	0.00	0.00
Contract Labor, Facilities - POWER Bld.	703.00	0.00	0.00	0.00
Contract Labor, Facilities - Aquatic Center	1,026.00	0.00	0.00	0.00
Contract Labor, Facilities - Wood Boiler	36.00	0.00	0.00	0.00
Contract Labor, Facilities - Fire Hall	89.00	0.00	0.00	0.00
Contract Labor, Facilities-EMS/Police/Admin	176.00	0.00	0.00	0.00
Contract Labor, Facilities - Police Station	686.00	0.00	0.00	0.00
Contract Labor, Facilities Youth Rec. Center	36.00	0.00	0.00	0.00
Contract Labor, Facilities GYM	181.00	0.00	0.00	0.00
Contract Labor, Facilities Library	27.00	0.00	0.00	0.00
Contract Labor, Facilities - Ball Park	700.00	0.00	0.00	0.00
Service Contract, Facilities	830.00	0.00	0.00	0.00
Total Contract Services Expenditures	10,680.00	10,700.00	7,200.00	(3,500.00)
Education & Travel				
Matereials & Supplies				
Materials & Supplies, PF	5,539.70	25,400.00	5,000.00	(20,400.00)
Materials & Supplies, Safety	169.90	0.00	0.00	0.00
Materials, Parts,Facilities - Child Care Center	22.97	0.00	0.00	0.00
Materials, Parts,Facilities -City Hall	1,756.33	0.00	0.00	0.00
Materials, Parts,Facilities - Medical Clinic	1,374.87	0.00	0.00	0.00
Materials, Parts,Facilities - F Hamilton Bld.	554.33	0.00	0.00	0.00
Materials, Parts,Facilities -Shop	844.61	0.00	0.00	0.00
Materials, Parts,Facilities - POWER Bld.	480.00	0.00	0.00	0.00
Materials, Parts,Facilities - Aquatic Center	11,180.02	0.00	0.00	0.00
Materials, Parts,Facilities - Wood Boiler	662.94	0.00	0.00	0.00

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Materials, Parts,Facilities - Fire Hall	205.62	0.00	0.00	0.00
Materials, Parts,Facilities - Police Station	99.60	0.00	0.00	0.00
Materials, Parts,Facilities - Youth Rec. Center	0.56	0.00	0.00	0.00
Materials, Parts,Facilities - GYM	105.27	0.00	0.00	0.00
Materials, Parts,Facilities - Library	231.73	0.00	0.00	0.00
Materials & Supplies Parks PF	1,598.09	0.00	0.00	0.00
Materials, Parts, Fac/Parks - R James Park	574.00	0.00	0.00	0.00
Materials, Parts, Fac/Parks -Ball Park	1.59	0.00	0.00	0.00
Postage, Facilities	31.90	50.00	0.00	(50.00)
Freight, Facilities	2,562.92	2,600.00	0.00	(2,600.00)
Equipment Fuel, Facilities	168.27	0.00	2,500.00	2,500.00
Unleaded Gas, Facilities	2,519.41	2,700.00	0.00	(2,700.00)
Total Matereials & Supplies Expenditures	30,684.63	30,750.00	7,500.00	(23,250.00)
Utilities				
Electricity, Facilities	3,072.45	3,100.00	6,000.00	2,900.00
Electricity,Parks, Toteum Park	245.44	250.00	0.00	(250.00)
Electricity, POW Hlt Clinic	4,300.43	4,300.00	0.00	(4,300.00)
Electricity, Facilities Sirens	284.35	285.00	0.00	(285.00)
Heating Fuel, Facilities	0.00	0.00	3,000.00	3,000.00
Heating Fuel, POW Clinic	6,066.38	4,000.00	0.00	(4,000.00)
Telephone,Facilities	924.04	1,000.00	600.00	(400.00)
Telephone, Parks POW Clinic	2,122.72	2,200.00	2,600.00	400.00
Total Utilities Expenditures	17,015.81	15,135.00	12,200.00	(2,935.00)
Maintenance				
Maintenance Expenditures	250.66	1,500.00	5,000.00	3,500.00
Maintenance Lease Expenditures	315.00	0.00	0.00	0.00
Building Maintenance Expenditures	789.00	0.00	0.00	0.00
Total Maintenance Expenditures	1,354.66	1,500.00	5,000.00	3,500.00
Other Expenditures				
Recording, Facilities	35.00	35.00	0.00	(35.00)
Insurance, Facilities	11,276.41	11,500.00	8,025.00	(3,475.00)
Other Expense, Facilities	0.31	0.00	0.00	0.00
Total Other Expenditures	$ 11,311.72	$ 11,535.00	$ 8,025.00	$ (3,510.00)
Equipment				
SM EQUIP PURCH, PARKS/PF	336.72	0.00	0.00	0.00
SM EQUIP PURCH, Facilities - Shop	271.69	600.00	0.00	(600.00)
CAPITAL IMPROVEMENT, HEALTH	0.00	0.00	0.00	0.00
EQUIPMENT PURCHASE >$5000, PARKS/PF	25,591.00	26,000.00	0.00	(26,000.00)
EQUIPMENT PURCHASE >$5000, PARKS	0.00	0.00	0.00	0.00
CAPITAL IMPROVEMENTS	0.00	0.00	0.00	0.00
Seaman's Park	0.00	0.00	0.00	0.00
Total Equipment	26,199.41	26,600.00	0.00	(26,600.00)
Capital Expenditures				
Total Expenses	318,901.82	319,820.00	252,932.00	(66,888.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Excess Revenue Over (Under) Expenditures	$ (318,901.82)	$ (319,820.00)	$ (252,932.00)	$ (66,888.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Public Works				
Expenses				
Personnel Wages				
Salary Expense	27,035.75	27,000.00	42,228.00	15,228.00
Full Time Wages	98,758.81	99,000.00	68,826.00	(30,174.00)
Overtime	2,031.13	2,100.00	0.00	(2,100.00)
On-Call	144.00	0.00	0.00	0.00
Vacation	9,868.10	10,000.00	0.00	(10,000.00)
Sick Leave	3,130.18	3,200.00	0.00	(3,200.00)
Total Personnel Wages Expenditures	140,967.97	141,300.00	111,054.00	(30,246.00)
Personnel Benefits				
Health Insurance	33,045.45	33,300.00	46,336.00	13,036.00
Social Security Taxes	10,257.77	10,600.00	8,503.00	(2,097.00)
PERS	28,952.58	30,000.00	24,453.00	(5,547.00)
Other Compensation Expenses	4,937.88	5,500.00	10,097.00	4,597.00
Total Personnel Benefits Expenditures	77,193.68	79,400.00	89,389.00	9,989.00
Contract Services				
Prof. Services, Pub Works	205.00	0.00	0.00	0.00
Techincal Servies, Public Works	80.00	0.00	0.00	0.00
Contract Labor, Public Works	470.00	1,850.00	500.00	(1,350.00)
Contract. Services, PSN Public Works	710.00	0.00	0.00	0.00
Contract Labor, PW R&M Fleet	381.80	0.00	0.00	0.00
Service Contract, Public Works	3,441.00	3,500.00	0.00	(3,500.00)
Total Contract Services Expenditures	5,287.80	5,350.00	500.00	(4,850.00)
Education & Travel				
Travel & Per Diem, Public Works	3,951.38	4,000.00	0.00	(4,000.00)
Education & Training, Public Works	298.50	300.00	0.00	(300.00)
Accoc Dues Public Works	521.50	520.00	0.00	(520.00)
Total Education & Travel Expenditures	4,771.38	4,820.00	0.00	(4,820.00)
Matereials & Supplies				
Materials & Supplies, P W	14,404.01	16,000.00	2,500.00	(13,500.00)
Materials, Parts, Supplies	155.86	0.00	1,500.00	1,500.00
Materials, Parts, Supplies 105	19.98	0.00	0.00	0.00
Materials, Parts, Supplies 204	530.40	0.00	0.00	0.00
Materials, Parts, Supplies 220	24.99	0.00	0.00	0.00
Materials, Parts, Supplies 311	97.55	0.00	0.00	0.00
Materials, Parts, Supplies504	46.95	0.00	0.00	0.00
Materials, Parts, Supplies 508 Crown Forklist	314.00	0.00	0.00	0.00
Materials, Office PW	0.00	0.00	1,000.00	1,000.00
Materials, Shop PW	0.00	0.00	2,000.00	2,000.00
Postage. Public Works	481.13	500.00	2,000.00	1,500.00
Freight, Public Works	2,057.55	2,100.00	0.00	(2,100.00)
Books & Subscriptions, Public Works	336.98	400.00	0.00	(400.00)
Equipment Fuel, Public Works	3,528.63	0.00	0.00	0.00
Unleaded Gas, Public Works	5,091.39	9,000.00	3,600.00	(5,400.00)
Total Matereials & Supplies Expenditures	27,089.42	28,000.00	12,600.00	(15,400.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Utilities				
Electricity, Public Works	4,153.85	4,200.00	4,500.00	300.00
Electricity, Street Lights, Public Works	6,387.27	6,400.00	6,000.00	(400.00)
Heating Fuel, Public Works	0.00	0.00	4,800.00	4,800.00
Propane, Public Works	144.35	150.00	500.00	350.00
Telephone & Internet, Public Works	3,008.70	3,000.00	2,800.00	(200.00)
Total Utilities Expenditures	13,694.17	13,750.00	18,600.00	4,850.00
Maintenance				
Maintenance Expenditures	16,964.96	18,000.00	43,500.00	25,500.00
Building Maintenance Expenditures	670.24	1,000.00	1,500.00	500.00
Total Maintenance Expenditures	17,635.20	19,000.00	45,000.00	26,000.00
Other Expenditures				
Recording, Public Works	20.00	0.00	50.00	50.00
Insurance, Public Works	6,864.00	6,900.00	5,053.00	(1,847.00)
Other Expenditures, Public Works	7,942.00	8,000.00	0.00	(8,000.00)
Total Other Expenditures	$ 14,826.00	$ 14,900.00	$ 5,103.00	$ (9,797.00)
Equipment				
SM EQUIP PURCH, PUBLIC WORKS	680.66	700.00	0.00	(700.00)
CAPITAL IMPROVEMENT,PUBLC WRKS	0.00	0.00	0.00	0.00
EQUIPMENT PURCHASE >$5000, PUB WORKS	0.00	0.00	0.00	0.00
CAPITAL IMPROVEMENTS	2,707.50	2,800.00	0.00	(2,800.00)
Total Equipment	3,388.16	3,500.00	0.00	(3,500.00)
Capital Expenditures				
Total Expenses	304,853.78	310,020.00	282,246.00	(27,774.00)
Excess Revenue Over (Under) Expenditures	$ (304,853.78)	$ (310,020.00)	$ (282,246.00)	$ (27,774.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Police				
Expenses				
Personnel Wages				
Salary Expense	76,308.37	76,500.00	70,104.00	(6,396.00)
Full Time Wages	343,376.20	348,000.00	364,532.00	16,532.00
Overtime	37,896.90	38,500.00	30,541.00	(7,959.00)
On-Call	11,910.00	12,000.00	17,400.00	5,400.00
Seasonal/Temp. Hourly	7,649.88	7,700.00	0.00	(7,700.00)
Vacation	28,420.23	29,000.00	0.00	(29,000.00)
Sick Leave	9,051.32	9,100.00	0.00	(9,100.00)
Total Personnel Wages Expenditures	514,612.90	520,800.00	482,577.00	(38,223.00)
Personnel Benefits				
Health Insurance	128,478.82	128,965.00	176,372.00	47,407.00
Social Security Taxes	37,909.73	38,300.00	36,918.00	(1,382.00)
PERS	106,677.92	107,000.00	106,167.00	(833.00)
Other Compensation Expenses	19,818.19	20,350.00	19,696.00	(654.00)
Total Personnel Benefits Expenditures	292,884.66	294,615.00	339,153.00	44,538.00
Contract Services				
Professional Services, Police	570.00	570.00	0.00	(570.00)
Technical Services, Police	1,653.83	1,700.00	1,800.00	100.00
Technical Services, Jail	868.75	1,000.00	0.00	(1,000.00)
Contract Labor, Police	225.00	0.00	0.00	0.00
Service Contract, Police	1,634.10	1,700.00	0.00	(1,700.00)
Total Contract Services Expenditures	4,951.68	4,970.00	1,800.00	(3,170.00)
Education & Travel				
Travel & Per Diem, Police	6,237.81	6,300.00	0.00	(6,300.00)
Education & Training, Police	1,205.41	1,200.00	0.00	(1,200.00)
Assoc. Dues, Police	325.00	325.00	0.00	(325.00)
Total Education & Travel Expenditures	7,768.22	7,825.00	0.00	(7,825.00)
Matereials & Supplies				
Materials & Supplies, Police	4,392.65	4,400.00	500.00	(3,900.00)
Jail Mat/Supplies, Police	8,415.91	9,000.00	4,000.00	(5,000.00)
DMV Mat/Supplies, Police	203.67	0.00	0.00	0.00
Officer Supplies, Police	0.00	0.00	3,000.00	3,000.00
Jail Expense, Police	2,507.03	2,500.00	0.00	(2,500.00)
Jail Food, Police	19,752.83	20,000.00	18,000.00	(2,000.00)
Other Jail Exp, Police	1,872.00	1,900.00	0.00	(1,900.00)
Postage, Police	997.28	1,000.00	0.00	(1,000.00)
Freight, Police	59.98	60.00	1,000.00	940.00
Freight, Jail	420.77	420.00	0.00	(420.00)
Unleaded Gas, Police	13,670.46	14,000.00	10,750.00	(3,250.00)
Total Matereials & Supplies Expenditures	52,292.58	53,280.00	37,250.00	(16,030.00)
Utilities				
Electricity, Police	11,057.90	11,000.00	12,000.00	1,000.00
Heating Fuel, Police	3,845.75	4,000.00	5,000.00	1,000.00
Telephone, Police	10,155.04	10,500.00	10,000.00	(500.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Total Utilities Expenditures	25,058.69	25,500.00	27,000.00	1,500.00
Maintenance				
Other Expenditures				
Permits, Police	10.00	0.00	0.00	0.00
Recording, Police	60.00	60.00	900.00	840.00
Insurance, Police	7,860.00	7,900.00	8,571.00	671.00
CC Fees, Police	50.00	0.00	800.00	800.00
Undercover Activity, Police	500.00	500.00	0.00	(500.00)
Reimbursement Exp	1,521.10	0.00	0.00	0.00
Total Other Expenditures	$ 10,001.10	$ 8,460.00	$ 10,271.00	$ 1,811.00
Equipment				
SM EQUP PURCH, POLICE	0.00	0.00	1,250.00	1,250.00
SM EQUIP/JAIL, POLICE	0.00	0.00	0.00	0.00
CAPITAL IMPROVEMENTS, POLICE	0.00	0.00	0.00	0.00
EQUIP PURCH > $5000, POLICE	0.00	0.00	0.00	0.00
EQUIP PURCH > $5000, JAIL/POLICE	2,330.00	2,500.00	0.00	(2,500.00)
CAPITAL IMPROVEMENTS	0.00	0.00	0.00	0.00
CAPITAL IMPROVEMENTS - JAIL	0.00	0.00	0.00	0.00
Total Equipment	2,330.00	2,500.00	1,250.00	(1,250.00)
Capital Expenditures				
Total Expenses	909,899.83	917,950.00	899,301.00	(18,649.00)
Excess Revenue Over (Under) Expenditures	$ (909,899.83)	$ (917,950.00)	$ (899,301.00)	$ (18,649.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
EMS				
Expenses				
Personnel Wages				
Salary Expense	59,896.85	60,000.00	54,746.00	(5,254.00)
Full Time Wages	580.00	0.00	0.00	0.00
Hourly-Part Time	0.00	0.00	30,876.00	30,876.00
Overtime	192.00	0.00	0.00	0.00
On-Call	2,772.00	3,000.00	0.00	(3,000.00)
Seasonal/Temp. Hourly	35,149.50	36,000.00	0.00	(36,000.00)
Vacation	3,187.52	3,200.00	0.00	(3,200.00)
Total Personnel Wages Expenditures	101,777.87	102,200.00	85,622.00	(16,578.00)
Personnel Benefits				
Health Insurance	39,386.29	39,845.00	25,141.00	(14,704.00)
Social Security Taxes	7,169.26	7,200.00	6,551.00	(649.00)
PERS	13,036.11	13,500.00	12,044.00	(1,456.00)
Unemployment Tax	153.04	150.00	0.00	(150.00)
Other Compensation Expenses	5,013.19	5,050.00	6,164.00	1,114.00
Total Personnel Benefits Expenditures	64,757.89	65,745.00	49,900.00	(15,845.00)
Contract Services				
Professional Services, EMS	794.00	1,000.00	3,950.00	2,950.00
Computer/Techincal Services - Admin	109.99	110.00	0.00	(110.00)
Srvice Contract, EMS	3,686.16	3,800.00	0.00	(3,800.00)
Casket Transport, EMS	120.00	0.00	0.00	0.00
Total Contract Services Expenditures	4,710.15	4,910.00	3,950.00	(960.00)
Education & Travel				
Travel & Per Diem, EMS	2,310.49	2,400.00	2,620.00	220.00
Education& Training, EMS	463.94	500.00	620.00	120.00
Assoc. Dues, EMS	143.31	150.00	0.00	(150.00)
Total Education & Travel Expenditures	2,917.74	3,050.00	3,240.00	190.00
Matereials & Supplies				
Materials & Supplies, EMS	10,937.61	11,000.00	7,500.00	(3,500.00)
Materials & Supplies, Office EMS	0.00	0.00	500.00	500.00
Medical Supplies, EMS	2,817.31	3,000.00	8,500.00	5,500.00
Postage, EMS	55.49	100.00	300.00	200.00
Freight, EMS	173.34	200.00	600.00	400.00
BOOKS & SUBSCRIP, EMS	219.93	0.00	0.00	0.00
School Class Supplies, EMS	3,037.67	3,000.00	0.00	(3,000.00)
Equipment Fuel,, EMS	780.43	1,000.00	1,000.00	0.00
Unleaded Gas, EMS	57.23	0.00	0.00	0.00
Total Matereials & Supplies Expenditures	18,079.01	18,300.00	18,400.00	100.00
Utilities				
Electricity, EMS	906.29	1,000.00	1,000.00	0.00
HEATING FUEL, EMS	1,325.10	1,400.00	1,100.00	(300.00)
TELEPHONE, EMS	2,764.20	2,800.00	2,200.00	(600.00)
Total Utilities Expenditures	4,995.59	5,200.00	4,300.00	(900.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Maintenance				
Maintenance Expenditures	460.67	500.00	1,000.00	500.00
Total Maintenance Expenditures	460.67	500.00	1,000.00	500.00
Other Expenditures				
PERMITS, EMS	0.00	0.00	650.00	650.00
INSURANCE, EMS	4,199.92	4,200.00	3,870.00	(330.00)
Total Other Expenditures	$ 4,199.92	$ 4,200.00	$ 4,520.00	$ 320.00
Equipment				
SM EQ PURCH (INCL DON), EMS	839.32	900.00	2,000.00	1,100.00
EQUIPMENT PURCHASE >$5000, EMS	0.00	0.00	0.00	0.00
CAPTIAL IMPROVEMENT	1,653.64	1,700.00	0.00	(1,700.00)
CAPTIAL IMPROVEMENT	0.00	0.00	0.00	0.00
Total Equipment	2,492.96	2,600.00	2,000.00	(600.00)
Capital Expenditures				
Total Expenses	204,391.80	206,705.00	172,932.00	(33,773.00)
Excess Revenue Over (Under) Expenditures	$ (204,391.80)	$ (206,705.00)	$ (172,932.00)	$ (33,773.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Fire Department				
Expenses				
Personnel Wages				
Personnel Benefits				
Other Compensation Expenses	245.00	200.00	4,186.00	3,986.00
Total Personnel Benefits Expenditures	245.00	200.00	4,186.00	3,986.00
Contract Services				
STEPEND, FIRE	3,500.00	3,500.00	3,500.00	0.00
Total Contract Services Expenditures	3,500.00	3,500.00	3,500.00	0.00
Education & Travel				
Travel & Per Diem,, FIRE	1,086.00	1,200.00	2,700.00	1,500.00
Education & Trainning FIRE	91.29	0.00	0.00	0.00
Total Education & Travel Expenditures	1,177.29	1,200.00	2,700.00	1,500.00
Matereials & Supplies				
Materials & Supplies, FIRE	1,019.38	1,500.00	1,379.00	(121.00)
Freight, FIRE	89.95	90.00	0.00	(90.00)
Total Matereials & Supplies Expenditures	1,109.33	1,590.00	1,379.00	(211.00)
Utilities				
ELECTRICITY, FIRE	1,205.45	1,300.00	110.00	(1,190.00)
HEATING FUEL, FIRE	2,422.36	2,500.00	2,000.00	(500.00)
TELEPHONE, Fire	1,341.33	1,400.00	0.00	(1,400.00)
EQUIPMENT FUEL, FIRE	0.00	0.00	300.00	300.00
Total Utilities Expenditures	4,969.14	5,200.00	2,410.00	(2,790.00)
Maintenance				
Maintenance Expenditures	0.00	0.00	5,000.00	5,000.00
Total Maintenance Expenditures	0.00	0.00	5,000.00	5,000.00
Other Expenditures				
INSURANCE, FIRE	4,608.00	4,600.00	4,020.00	(580.00)
Total Other Expenditures	$ 4,608.00	$ 4,600.00	$ 4,020.00	$ (580.00)
Equipment				
EQUIPMENT REPLACEMENT, FIRE	399.99	400.00	6,000.00	5,600.00
EQUIPMENT PURCHASE, FIRE	2,894.95	2,900.00	0.00	(2,900.00)
CAPITAL IMPROVEMENT	0.00	0.00	0.00	0.00
Total Equipment	3,294.94	3,300.00	6,000.00	2,700.00
Capital Expenditures				
Total Expenses	18,903.70	19,590.00	29,195.00	9,605.00
Excess Revenue Over (Under) Expenditures	$ (18,903.70)	$ (19,590.00)	$ (29,195.00)	$ 9,605.00

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Library				
Expenses				
Personnel Wages				
Salary Expense	41,060.00	41,100.00	39,000.00	(2,100.00)
Full Time Wages	1,405.14	0.00	0.00	0.00
Hourly-Part Time	17,572.54	20,000.00	17,685.00	(2,315.00)
Seasonal/Temp. Hourly	201.14	0.00	0.00	0.00
Vacation	2,903.16	2,900.00	0.00	(2,900.00)
Sick Leave	840.00	840.00	0.00	(840.00)
Total Personnel Wages Expenditures	63,981.98	64,840.00	56,685.00	(8,155.00)
Personnel Benefits				
Health Insurance	30,802.66	32,200.00	33,831.00	1,631.00
Social Security Taxes	4,394.48	4,400.00	4,336.00	(64.00)
PERS	8,555.49	9,000.00	8,580.00	(420.00)
Other Compensation Expenses	442.32	450.00	351.00	(99.00)
Total Personnel Benefits Expenditures	44,194.95	46,050.00	47,098.00	1,048.00
Contract Services				
Professional Services, Library	155.00	0.00	3,847.00	3,847.00
Contract Labor, Library	757.00	0.00	0.00	0.00
Service Contract, Library	1,691.80	2,700.00	0.00	(2,700.00)
Total Contract Services Expenditures	2,603.80	2,700.00	3,847.00	1,147.00
Education & Travel				
Travel & Per Diem, Library	448.47	0.00	0.00	0.00
Total Education & Travel Expenditures	448.47	0.00	0.00	0.00
Matereials & Supplies				
Materials & Supplies, Library	1,020.75	2,800.00	1,750.00	(1,050.00)
Material & Suplies, Library	1,653.07	0.00	0.00	0.00
Postage, Library	785.85	800.00	880.00	80.00
Freight, Library	17.00	0.00	0.00	0.00
Books, Library	2,059.30	2,100.00	2,300.00	200.00
Books, Grant Library	1,557.31	1,600.00	0.00	(1,600.00)
Subscriptions, Library	236.00	240.00	770.00	530.00
Audie/Video, Library	828.60	900.00	1,220.00	320.00
Total Matereials & Supplies Expenditures	8,157.88	8,440.00	6,920.00	(1,520.00)
Utilities				
Electricity, Library	3,327.62	3,400.00	4,500.00	1,100.00
Heating Fuel, Library	1,575.36	2,000.00	2,000.00	0.00
Telephone, Library	639.01	700.00	2,440.00	1,740.00
Total Utilities Expenditures	5,541.99	6,100.00	8,940.00	2,840.00
Maintenance				
Maintenance Expenditures	0.00	0.00	1,000.00	1,000.00
Total Maintenance Expenditures	0.00	0.00	1,000.00	1,000.00
Other Expenditures				
Insurance, Library	1,236.00	1,250.00	803.00	(447.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Total Other Expenditures	$ 1,236.00	$ 1,250.00	$ 803.00	$ (447.00)
Equipment				
Small Equipment, Library	0.00	0.00	0.00	0.00
Equipment >$5000, Library	0.00	0.00	0.00	0.00
Capital Improvements, Library	0.00	0.00	0.00	0.00
Capital Expenditures				
Total Expenses	126,165.07	129,380.00	125,293.00	(4,087.00)
Excess Revenue Over (Under) Expenditures	$ (126,165.07)	$ (129,380.00)	$ (125,293.00)	$ (4,087.00)

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Recreation				
Expenses				
Personnel Wages				
Salary Expense	40,166.15	40,200.00	37,440.00	(2,760.00)
Hourly-Part Time	217.50	0.00	7,280.00	7,280.00
Overtime	24.00	0.00	0.00	0.00
Seasonal/Temp. Hourly	4,632.00	5,000.00	0.00	(5,000.00)
Vacation	3,763.53	3,800.00	0.00	(3,800.00)
Total Personnel Wages Expenditures	48,803.18	49,000.00	44,720.00	(4,280.00)
Personnel Benefits				
Health Insurance	10,758.12	10,900.00	20,375.00	9,475.00
Social Security Taxes	3,307.76	3,431.00	3,421.00	(10.00)
PERS	8,508.78	8,600.00	8,237.00	(363.00)
Other Compensation Expenses	2,572.60	2,600.00	373.00	(2,227.00)
Total Personnel Benefits Expenditures	25,147.26	25,531.00	32,406.00	6,875.00
Contract Services				
Professional Services, Recreation	1,746.00	1,800.00	0.00	(1,800.00)
Contract Labor, Recreation	3,448.06	4,000.00	4,900.00	900.00
Service Contract, Recreation	99.00	0.00	0.00	0.00
Total Contract Services Expenditures	5,293.06	5,800.00	4,900.00	(900.00)
Education & Travel				
Matereials & Supplies				
Materials & Supplies, Recreation	2,675.80	3,000.00	1,000.00	(2,000.00)
Postage, Recreation	12.42	0.00	0.00	0.00
Total Matereials & Supplies Expenditures	2,688.22	3,000.00	1,000.00	(2,000.00)
Utilities				
Electricity, Recreation	3,972.81	4,000.00	3,500.00	(500.00)
Heatting Fuel, GYM	6,380.71	6,400.00	6,000.00	(400.00)
Heating Fuel, Youth Center	0.00	0.00	2,000.00	2,000.00
Telephone, Recreation	1,413.84	1,500.00	1,500.00	0.00
Total Utilities Expenditures	11,767.36	11,900.00	13,000.00	1,100.00
Maintenance				
Building Maintenance Expenditures	6.87	0.00	0.00	0.00
Total Maintenance Expenditures	6.87	0.00	0.00	0.00
Other Expenditures				
Insurance, Recreation	3,696.00	3,700.00	3,340.00	(360.00)
Total Other Expenditures	$ 3,696.00	$ 3,700.00	$ 3,340.00	$ (360.00)
Equipment				
Small Equipment, Recreation	0.00	0.00	0.00	0.00
Equipment > 5000, Recreation	0.00	0.00	0.00	0.00
Capital Improvement, Recreation	0.00	0.00	0.00	0.00
Capital Expenditures				

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Total Expenses	97,401.95	98,931.00	99,366.00	435.00
Excess Revenue Over (Under) Expenditures	$ (97,401.95)	$ (98,931.00)	$ (99,366.00)	$ 435.00

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
Aquatic Center				
Expenses				
Personnel Wages				
Salary Expense	49,158.05	49,500.00	45,582.00	(3,918.00)
Full Time Wages	55,866.25	56,000.00	70,720.00	14,720.00
Hourly-Part Time	0.00	0.00	12,265.00	12,265.00
Overtime	784.13	800.00	0.00	(800.00)
Seasonal/Temp. Hourly	27,464.75	28,000.00	0.00	(28,000.00)
Vacation	5,861.14	5,900.00	0.00	(5,900.00)
Total Personnel Wages Expenditures	139,134.32	140,200.00	128,567.00	(11,633.00)
Personnel Benefits				
Health Insurance	38,939.60	39,000.00	53,612.00	14,612.00
Social Security Taxes	9,805.15	9,900.00	9,835.00	(65.00)
PERS	22,145.62	22,500.00	25,586.00	3,086.00
Other Compensation Expenses	5,393.40	5,500.00	7,822.00	2,322.00
Total Personnel Benefits Expenditures	76,333.77	76,950.00	96,855.00	19,905.00
Contract Services				
Professional Services, Aquatic Center	375.00	400.00	0.00	(400.00)
Technical Services, Aquatic Center	789.99	800.00	4,000.00	3,200.00
Service Contract, Aquatic Center	967.55	1,000.00	0.00	(1,000.00)
Total Contract Services Expenditures	2,132.54	2,200.00	4,000.00	1,800.00
Education & Travel				
Travel & Per Diem, Aquatic Center	1,792.34	2,000.00	2,000.00	0.00
Education & Trainning Aquatic Center	910.72	1,000.00	525.00	(475.00)
Total Education & Travel Expenditures	2,703.06	3,000.00	2,525.00	(475.00)
Matereials & Supplies				
Materials & Supplies, Aquatic Center	7,507.35	7,500.00	7,760.00	260.00
Chemicals, Aquatic Center	6,651.54	6,800.00	9,000.00	2,200.00
Postage, Aquatic Center	36.50	40.00	0.00	(40.00)
Feight, Aquatic Center	3,430.69	3,500.00	4,000.00	500.00
Total Matereials & Supplies Expenditures	17,626.08	17,840.00	20,760.00	2,920.00
Utilities				
Electricity, Aquatic Center	51,026.82	51,000.00	40,000.00	(11,000.00)
Heating Fuel, Aquatic Center	10,478.70	11,000.00	0.00	(11,000.00)
Propane, Aquatic Center	30,634.50	31,000.00	20,000.00	(11,000.00)
Tlephone, Aquatic Center	3,073.19	3,000.00	3,500.00	500.00
Wood Chips, Aquatic Center	28,702.76	29,000.00	35,000.00	6,000.00
Total Utilities Expenditures	123,915.97	125,000.00	98,500.00	(26,500.00)
Maintenance				
Maintenance Expenditures	213.00	200.00	4,820.00	4,620.00
Total Maintenance Expenditures	213.00	200.00	4,820.00	4,620.00
Other Expenditures				
INSURANCE, Aquatic Center	9,264.00	9,300.00	6,300.00	(3,000.00)
CC FEES, Aquatic Center	43.82	44.00	250.00	206.00

City of Craig, Inc.

Multi Year Revenue and Expense

June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Variance
OTHER EXPENSE, Aquatic Center	216.00	500.00	0.00	(500.00)
Total Other Expenditures	$ 9,523.82	$ 9,844.00	$ 6,550.00	$ (3,294.00)
Equipment				
SM EQUIP PURCH, Aquatic Center	2,697.08	2,700.00	1,125.00	(1,575.00)
Equipment Purchase, Aquatic Center	0.00	0.00	0.00	0.00
Capital Improvement, Aquatic Center	0.00	0.00	0.00	0.00
Total Equipment	2,697.08	2,700.00	1,125.00	(1,575.00)
Capital Expenditures				
DEBT Interest, POOL	74,387.50	74,500.00	74,389.00	(111.00)
DEBT Principal, POOL	60,000.00	60,000.00	60,000.00	0.00
Total Capital Expenditures	134,387.50	134,500.00	134,389.00	(111.00)
Total Expenses	508,667.14	512,434.00	498,091.00	(14,343.00)
Excess Revenue Over (Under) Expenditures	$ (508,667.14)	$ (512,434.00)	$ (498,091.00)	$ (14,343.00)

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
Sewer				
Revenues				
Sewer Service Fees	294,513.26	294,000.00	271,000.00	23,000
Sewer Service/ Nonmetered	5,577.60	5,500.00	5,000.00	500
Transfer From Capital Reserves	53,140.00	53,140.00	0.00	53,140
Total Revenue	353,230.86	352,640.00	276,000.00	76,640
Expenses				
Personnel Wages				
Salary Expense	12,516.49	13,000.00	19,550.00	(6,550)
Full Time Wages	63,540.25	66,000.00	65,075.00	925
Overtime	1,377.27	1,400.00	1,877.00	(477)
On-Call	64.00	100.00	300.00	(200)
Vacation	2,577.53	0.00	0.00	0
Total Personnel Wages Expenditures	80,075.54	80,500.00	86,802.00	(6,302)
Personnel Benefits				
Health Insurance	14,824.91	15,000.00	23,603.00	(8,603)
Social Security Taxes	5,817.93	6,200.00	6,630.00	(430)
PERS	16,688.69	17,000.00	19,065.00	(2,065)
Other Compensation Expenses	2,624.00	2,700.00	2,991.00	(291)
Total Personnel Benefits Expenditures	39,955.53	40,900.00	52,289.00	(11,389)
Contract Services				
Professional Serv., Sewer	150.00	150.00	1,000.00	(850)
Technical Serv., Sewer	4,088.88	4,100.00	0.00	4,100
Contract Labor, Sewer	153.00	155.00	0.00	155
Service Contract, Wastewater	3,207.36	3,200.00	5,000.00	(1,800)
Total Contract Services Expenditures	7,599.24	7,605.00	6,000.00	1,605
Education & Travel				
Education & Training, Wastewater	300.00	300.00	825.00	(525)
Total Education & Travel Expenditures	300.00	300.00	825.00	(525)
Matereials & Supplies				
Materials & Supplies, Wastewater	4,253.02	4,300.00	2,500.00	1,800
Chemical Supplies, Wastewater	1,212.54	1,500.00	2,500.00	(1,000)
Postage, Wastewater	612.54	600.00	500.00	100
Freight, Wastewater	521.63	600.00	0.00	600
Equipment Fuel,Wastewater	0.00	0.00	2,900.00	(2,900)
Gas, Wastewater	1,217.40	1,250.00	0.00	1,250

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
Total Matereials & Supplies	7,817.13	8,250.00	8,400.00	(150)
Expenditures				
Utilities				
Electric, WWT Plant, Wastewater	33,468.98	34,000.00	30,000.00	4,000
Electric Lift Stations, Wastewater	12,748.75	13,000.00	12,000.00	1,000
Telephone, Wastewater	2,154.03	2,200.00	2,700.00	(500)
Total Utilities Expenditures	48,371.76	49,200.00	44,700.00	4,500
Maintenance				
Maintenance Expenditures	3,394.98	3,500.00	12,000.00	(8,500)
Building Maintenance Expenditures	163.86	165.00	0.00	165
Total Maintenance Expenditures	3,558.84	3,665.00	12,000.00	(8,335)
Other Expenditures				
Permits, Wastewater	0.00	0.00	940.00	(940)
Public Notice/Advervisting	104.55	100.00	0.00	100
Recording, Wastewater	0.00	0.00	20.00	(20)
Insurance, Wastewater	4,764.00	4,800.00	6,128.00	(1,328)
Bad Debts, Wastewater	5.00	0.00	500.00	(500)
Total Other Expenditures	4,873.55	4,900.00	7,588.00	(2,688)
Equipment				
SM Equip. Purchaes, Wastewater	0.00	0.00	0.00	0
Equipment >$5000, Wastewater	5,180.00	5,000.00	0.00	5,000
Capital Improvement, Wastewater	58,904.11	59,000.00	0.00	59,000
Total Equipment	64,084.11	64,000.00	0.00	64,000
Capital Expenditures				
Interest Expense, Wastewater	2,620.00	2,620.00	3,469.00	(849)
Debt Principal Pmt, Wastewater	57,376.00	57,376.00	56,528.00	848
Total Capital Expenditures	59,996.00	59,996.00	59,997.00	(1)
Total Expenses	316,631.70	319,316.00	278,601.00	40,715
Excess Revenue Over (Under) Expenditures	36,599.16	33,324.00	(2,601.00)	35,925

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
Water				
Revenues				
Water Service/Metered	284,065	284,000	294,000	(10,000.00)
Water Service / Nonmetered	9,060	9,000	4,800	4,200.00
Material Sales, Water	3,217	3,000	1,000	2,000.00
Reconnection Fee, Water	0	0	500	(500.00)
Turn-Off Notice Fee	275	275	1,000	(725.00)
Other Revenue - Water	2,724	2,700	0	2,700.00
Total Revenue	299,341	298,975	301,300	(2,325.00)
Expenses				
Personnel Wages				
Salary Expense	7,510	7,600	11,730	(4,130.00)
Full Time Wages	108,158	122,000	156,358	(34,358.00)
Overtime	1,983	2,000	4,510	(2,510.00)
On-Call	112	200	300	(100.00)
Vacation	12,382	0	0	0.00
Sick Leave	1,188	0	0	0.00
Total Personnel Wages Expenditures	131,332	131,800	172,898	(41,098.00)
Personnel Benefits				
Health Insurance	21,250	21,635	39,385	(17,750.00)
Social Security Taxes	9,839	9,840	13,229	(3,389.00)
PERS	27,751	28,000	38,044	(10,044.00)
Other Compensation Expenses	6,568	6,600	6,510	90.00
Total Personnel Benefits Expenditures	65,408	66,075 0	97,168 0	(31,093)
Contract Services				
Professional Services, Water	0	0	1,000	(1,000.00)
Technical Services, Water	2,709	2,800	0	2,800.00
Contract Labor, Water	11	10	0	10.00
Service Contract, Water	5,840	5,900	5,000	900.00
Total Contract Services Expenditures	8,560	8,710	6,000	2,710
Education & Travel				
Travel & Per Diem, Water	66	0	500	(500.00)
Education & Training, Water	1,108	1,200	0	1,200.00
Assoc. Dues, Water	142	150	690	(540.00)
Total Education & Travel Expenditures	1,316	1,350	1,190	160
Matereials & Supplies				
Materials & Supplies, Water	13,033	13,000	5,800	7,200.00

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
Chemical Supplies , Water	26,036	26,000	18,000	8,000.00
Meter Parts, WATER	8,609	8,700	0	8,700.00
Postage, Water	703	700	1,000	(300.00)
Freight, Water	16,403	16,500	9,000	7,500.00
Unleaded Gas, Water	724	750	1,350	(600.00)
Total Matereials & Supplies	65,508	65,650	35,150	30,500
Expenditures				
Utilities				
Eelectricity, Water	53,415	54,000	58,300	(4,300.00)
Telephone, Water	2,167	2,200	2,800	(600.00)
Total Utilities Expenditures	55,582	56,200	61,100	(4,900.00)
Maintenance				
Maintenance Expenditures	3,630	3,800	4,000	(200.00)
Building Maintenance Expenditures	0	0	1,000	(1,000.00)
Total Maintenance Expenditures	3,630	3,800	5,000	(1,200.00)
Other Expenditures				
Permits, Water	50	50	100	(50.00)
Recording, Water	0	0	10	(10.00)
Insurance, Water	7,896	7,900	6,325	1,575.00
Bad Debts, Water	198	200	0	200.00
Total Other Expenditures	8,144	8,150	6,435	1,715
Equipment				
Small Equipment , Water	25,010	25,000	0	25,000.00
Equipment >$5000, Water	0	0	0	0.00
Capital Improvements, Water	0	0	0	0.00
Total Equipment	25,010	25,000	0	25,000.00
Capital Expenditures				
Interest, Debt, Water	5,506	5,700	5,634	66.00
Debt Service, Principal (GAAP)	19,884	19,000	18,199	801.00
Total Capital Expenditures	25,390	24,700	23,833	867.00
Total Expenses	389,880	391,435	408,774	(17,339)
Excess Revenue Over (Under) Expenditures	(90,539)	(92,460)	(107,474)	15,014

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
Garbage				
Revenues				
Garbage Collection Fees	302,654	302,000	303,000	(1000)
Dumpster Rental	45	0	0	
Dumpster/Can Sales	(245)	0	0	
Total Revenue	302,454	302,000	303,000	(1000)
Expenses				
Personnel Wages				
Salary Expense	3,004	3,000	4,692	(1692)
Full Time Wages	38,104	41,869	31,051	10818
Overtime	71	71	210	(139)
Vacation	3,000	0	0	0
Sick Leave	765	0	0	0
Total Personnel Wages	44,944	44,940	35,953	8987
Expenditures				
Personnel Benefits				
Health Insurance	19,162	19,200	19,031	169
Social Security Taxes	3,291	3,293	2,752	541
PERS	9,546	9,600	7,914	1686
Other Compensation	2,622	0	4,049	(4049)
Expenses	0			
Total Personnel Benefits	31,999	32,093	29,905	2188
Expenditures				
Contract Services				
Contract Labor, Garbage	40	0	0	0
Service Contract, Garbage	185,250	186,000	216,500	(30500)
Total Contract Services	185,290	186,000	216,500	(30500)
Expenditures				
Education & Travel				
				0
Matereials & Supplies				
Materials & Supplies , Garbage	1,893	2,000	1,000	1000
Postage, Garbage	613	650	1,000	(350)
Freight, Garbage	670	700	500	200
Equipment Fuel, Garbage	4,510	4,600	5,000	(400)
Total Matereials & Supplies	7,686	7,950	7,500	450
Expenditures				

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
Utilities				
Electric, Burn Pit	149	150	0	150
Total Utilities Expenditures	149	150	0	150
Maintenance				
Maintenance Expenditures	3,607	3,700	1,000	2700
Total Maintenance Expenditures	3,607	3,700	1,000	2700
Other Expenditures				
Recording, Garbage	0	0	20	(20)
Insurance, Garbage	3,312	3,400	3,524	(124)
Bad Debts, Garbage	120	120	0	120
Total Other Expenditures	3,432	3,520	3,544	(24)
Equipment				
Small Equipment Garbage	0	0	0	0
Equipment Purchase>$5000, Garbage	0	0	0	0
Capital Improvements, Garbage	0	0	0	0
				0
Capital Expenditures				
Total Expenses	279,730	278,353	298,243	(19890)
Excess Revenue Over (Under) Expenditures	22,724	23,647	4,757	18890

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	% of Budget
Harbor				
Revenues				
Transfer From Capital Reserves	26,234.00	26,234.00	0.00	26234
Moorage, Permanent	84,527.78	84,000.00	85,000.00	(1000)
Moorage, Transient	102,465.95	100,000.00	95,000.00	5000
Power Moorage	16,701.88	17,000.00	10,000.00	7000
Storage Container Fees	16,295.00	16,000.00	14,000.00	2000
Outside Storage Fees	9,446.83	9,000.00	7,000.00	2000
Equipment Rental	1,950.00	2,000.00	1,000.00	1000
Crane User Fees	2,900.25	3,000.00	5,000.00	(2000)
Shower Operations	2,372.49	2,400.00	2,000.00	400
Wharfage	1,195.27	1,200.00	2,000.00	(800)
Launch Ramp Fees	2,976.00	3,000.00	2,000.00	1000
Harbor Live Aboard	205.00	0.00	0.00	0
Grid/Vessel Pump, Assist	525.00	500.00	1,000.00	(500)
Miscellaneous Revenue	6,064.90	6,000.00	1,000.00	5000
Total Revenue	273,860.35	270,334.00	225,000.00	45334
Expenses				
Personnel Wages				
Salary Expense	41,028.53	41,000.00	31,574.00	9426
Full Time Wages	47,796.19	48,000.00	61,942.00	(13942)
Hourly-Part Time	22,923.00	23,000.00	13,478.00	9522
Overtime	1,768.90	18,000.00	5,000.00	13000
On-Call	5,494.00	5,500.00	9,900.00	(4400)
Seasonal/Temp. Hourly	2,415.00	2,400.00	0.00	2400
Vacation	6,537.15	6,500.00	0.00	6500
Sick Leave	3,652.62	3,700.00	0.00	3700
Total Personnel Wages	131,615.39	148,100.00	121,894.00	26206
Expenditures				
Personnel Benefits				
Health Insurance	20,936.87	21,000.00	33,848.00	(12848)
Social Security Taxes	9,431.57	9,500.00	9,517.00	(17)
PERS	21,103.01	21,500.00	24,402.00	(2902)
Unemployment Tax	11,034.86	11,500.00	0.00	11500
Other Compensation Expenses	8,155.14	8,300.00	8,701.00	(401)
Total Personnel Benefits	70,661.45	71,800.00	76,468.00	(4668)
Expenditures				
Contract Services				
Professional Services, Harbor	75.00	0.00	0.00	0
Contract Labor, Harbor	282.00	400.00	0.00	400
Service Contract, Harbor	600.00	600.00	0.00	600

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	% of Budget
Total Contract Services Expenditures	957.00	1,000.00	0.00	1000
Education & Travel				
Travel & Per Diem, Harbor	3,053.11	3,000.00	0.00	3000
Education & Training, Harbor	950.36	1,000.00	2,000.00	(1000)
Association Dues, Harbor	150.00	150.00	0.00	150
Total Education & Travel Expenditures	4,153.47	4,150.00	2,000.00	2150
Matereials & Supplies				
Materials & Supplies, Harbor	5,410.30	6,685.00	1,000.00	5685
Materials & Supplies-NC	134.50	0.00	0.00	0
Materials & Supplies-SC	37.45	0.00	0.00	0
Materials & Supplies-Office	653.19	0.00	0.00	0
Materials & Supplies-Harbormaster Bld Bathrooms	105.43	0.00	0.00	0
Materials & Supplies-Harbormaster Bld Office	343.35	0.00	0.00	0
Postage, Harbor	533.76	550.00	0.00	550
Freight, Harbor	3,282.59	3,300.00	0.00	3300
Equipment Fuel, Harbor	744.81	750.00	750.00	0
Unleaded Fuel, Harbor	7,680.82	7,700.00	5,250.00	2450
Total Matereials & Supplies Expenditures	18,926.20	18,985.00	7,000.00	11985
Utilities				0
Electricty, Harbormaster Office	2,856.33	2,900.00	3,400.00	(500)
Electricity, Dock	63.00	0.00	0.00	0
Electricity, Street Lights	6,456.14	6,500.00	4,000.00	2500
Electricity, Grid	999.58	1,000.00	1,000.00	0
Electricity, Transient Pedestals	14,078.72	14,000.00	12,500.00	1500
Heating Fuel, Harbor	2,325.42	2,400.00	0.00	2400
Telephone, Harbor	3,902.36	4,000.00	1,200.00	2800
Total Utilities Expenditures	30,681.55	30,800.00	22,100.00	8700
Maintenance				0
Maintenance Expenditures	31,110.26	31,400.00	10,000.00	21400
Total Maintenance Expenditures	1,078.37	31,400.00	10,000.00	21400
Other Expenditures				0
Permits, Harbor	250.00	250.00	325.00	(75)
Public Notice/Advervisting, Harbor	0.00	0.00	250.00	(250)

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	% of Budget
Recording, Harbor	35.00	35.00	0.00	35
Insurance, Harbor	22,477.80	22,500.00	21,330.00	1170
Credit Card Fees, Harbor	348.64	350.00	0.00	350
Bad Debts, Harbor	0.00	0.00	500.00	(500)
Total Other Expenditures	23,111.44	23,135.00	22,405.00	730
Equipment				0
Small Equipment, Harbor	1,952.78	2,000.00	0.00	2000
Euipment Replacement	0.00	0.00	0.00	0
Equipment Purcahses >5000, Harbor	26,234.00	27,000.00	0.00	27000
EQUIPMENT PURCHASE, DOCK	0.00	0.00	0.00	0
Capital Improvement, Harbor	0.00	0.00	0.00	0
Total Equipment	28,186.78	29,000.00	0.00	29000
Capital Expenditures				0
Total Expenses	309,371.65	358,370.00	261,867.00	96,503.00
Excess Revenue Over (Under) Expenditures	(35,511.30)	(88,036.00)	(36,867.00)	(51,169.00)

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
JTB Industrail Park				
Washdown Service, JTB Park	680	700.00	0.00	700
Boat Storage Fees, JTB Park	35,070.17	35,000.00	32,000.00	3000
Equip Rental, JTB Park	2,507.50	2,500.00	0.00	2500
Electricity, JTB Park Boat Yard	2,373.98	2,300.00	7,500.00	(5200)
Misc. Rev, JTB Park	600.00	600.00	0.00	600
Total Revenues	41,231.65	41,100.00	39,500.00	1600
Revenue				
Ice House Sales, JTB Park	77,279.91	77,000.00	85,000.00	(8000)
Ice House Labor contract	37,332.00	37,000.00	0.00	37000
Total Revenues	114,611.91	114,000.00	85,000.00	29000
Revenue				
Property Lease , JTB Park	267,623.00	267,000.00	259,531.00	7469
Boat Houlout Harbor	30,159.82	30,000.00	24,000.00	6000
Other - JTB Park,	0.00	0.00	25,000.00	(25000)
Total Revenues	297,782.82	297,000.00	308,531.00	(11531)
Revenue				0
Total Revenue	453,626.38	452,100.00	433,031.00	19069
Expenses				
Personnel Wages				
Salary Expense	23,481.39	24,000.00	31,574.00	(7574)
Full Time Wages	25,589.96	26,000.00	16,640.00	9360
Hourly-Part Time	3,316.50	0.00	28,478.00	(28478)
Overtime	34,520.64	34,000.00	0.00	34000
On-Call	133.00	150.00	0.00	150
Seasonal/Temp. Hourly	14,084.00	14,000.00	0.00	14000
Vacation	2,852.26	2,900.00	0.00	2900
Sick Leave	1,582.00	1,600.00	0.00	1600
Total Personnel Wages Expenditures	105,559.75	102,650.00	76,692.00	25,958.00
Personnel Benefits				
Health Insurance	14,376.43	14,550.00	27,777.00	(13227)
Social Security Taxes	7,815.99	7,840.00	5,867.00	1973
PERS	10,442.62	11,000.00	10,607.00	393
Other Compensation Expenses	0.00	0.00	4,380.00	(4380)
Total Personnel Benefits	32,635.04	33,390.00	48,631.00	(15,241.00)
Expenditures				
Contract Services				
Proffesssional Serv., JTB Park	1,020.00	1,000.00	0.00	1000
Contract Labor, JTB Park	827.32	1,000.00	1,800.00	(800)
IceHouse Contract Services		0.00	0.00	0
Total Contract Services Expenditures	1,847.32	2,000.00	1,800.00	200.00
Education & Travel				

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
Matereials & Supplies				
Materials & Supplies, JTB Park	27.72	5,800.00	8,400.00	(2600)
Mat. & Supplies, Boat Yard, JTB Park	739.93	0.00	0.00	0
Mat. & Supplies, Ice House, JTB Park	5,000.55	0.00	0.00	0
Freight,, JTB Park	872.64	1,000.00	700.00	300
Equipment Fuel, JTB Park	300.99	300.00	0.00	300
Total Matereials & Supplies	6,941.83	7,100.00	9,100.00	(2000)
Expenditures				
				0
Utilities				
Electric, JTB Park	5,047.04	5,000.00	55,000.00	(50000)
Electric, Ice House	39,434.35	40,000.00	0.00	40000
Telephone, Icehouse	1,303.56	1,400.00	0.00	1400
Total Utilities Expenditures	45,784.95	46,400.00	55,000.00	(8600)
				0
Maintenance				
Maintenance Expenditures	5,605.15	7,800.00	5,000.00	2800
Building Maintenance Expenditures	499.58	0.00	0.00	0
Total Maintenance Expenditures	6,104.73	7,800.00	5,000.00	2800
Other Expenditures				
Permits, JTB Park	0.00	0.00	300.00	
Permits, Ice House	325.00	325.00	0.00	1
Insurnace, JTB Park	11,112.00	11,500.00	9,281.00	0
Total Other Expenditures	11,437.00	11,825.00	9,581.00	0
Equipment				
Equipment Purchase, JTB Park	0.00	0.00	0.00	0
Equipment Purchase >5000, JTB Park	4,500.00	4,500.00	0.00	1
Equipment Purchase >5000, Icehouse	6,069.59	6,100.00	0.00	1
Capital Improvements, JTB Park	51,904.63	52,000.00	54,000.00	(0)
Total Equipment	62,474.22	62,600.00	54,000.00	0
Capital Expenditures				
Total Expenses	272,784.84	273,765.00	259,804.00	0
Excess Revenue Over (Under) Expenditures	180,841.54	178,335.00	173,227.00	0

Craig-Rev/Exp Rev Budget By Dept
June 30, 2018

	Y-T-D Actual Amount	Revised Budget	Current Year Budget	Change
Ward Cove Cannery				
Revenues				
Storage Rentals	7,905	7,900	6,000	1,900
Property Lease, Cannery	200	0	0	0
Total Revenues	8,105	7,900	6,000	1,900
Expenses				
Personnel Wages				
Personnel Benefits				
Contract Services				
Education & Travel				
Matereials & Supplies				
Materials, WC Cannery	39	50	0	(50)
Total Matereials & Supplies	39	50	0	(50)
Expenditures				
Utilities				
Electricty, WC Cannery	1,564	1,600	2,100	500
Total Utilities Expenditures	1,564	1,600	2,100	500
Maintenance				
Maintenance Expenditures	136	200	2,750	2,550
Total Maintenance Expenditures	136	200	2,750	2,550
Other Expenditures				
Insurance, CANNERY	960	1,000	31	(969)
Total Other Expenditures	960	1,000	31	(969)
Equipment				
EQUIPMENT PURCHASE, CANNERY	0	0	2,000	2,000
EQUIP PURCH > $5000, CANNERY	0	0	0	0
Total Equipment	0	0	2,000	2,000
Capital Expenditures				
Total Expenses	2,699	2,850	6,881	(4,031)
Excess Revenue Over (Under) Expenditures	5,406	5,050	(881)	5,931

CITY OF CRAIG

RESOLUTION 18-16

AUTHORIZE THE EXEMPTION OF SEASONAL EMPLOYEES FROM PARTICIPATION IN THE STATE OF ALASKA PUBLIC EMPLOYEE'S RETIREMENT SYSTEM

WHEREAS, the City of Craig wishes to amend the participation agreement with the State of Alaska Division of Retirements and Benefits to disallow seasonal employees enrollment into the retirement system.

WHEREAS, the amendment to the participation agreement is applies to all employees hired as seasonal for or after the summer season of 2018.

NOW THEREFORE, be it resolved by the governing body of the City of Craig that

1. The City of Craig further requests that seasonal employee be exempt from participation into the State of Alaska Retirement and Benefit system

3. The representative of the City of Craig is authorized and directed:

   a. To take any and all steps necessary to enroll the new employees at the time of employment in the Public Employees' Retirement System of Alaska.

   b. To initiate a Participation Agreement Amendment between the City of Craig and the State of Alaska, Department of Administration.

PASSED, APPROVED, AND ADOPTED BY THE CITY OF CRAIG OF CRAIG, ALASKA

THIS 2nd day of August, 2018.

APPROVED _____

_____ ATTEST_____

TIM O'COONOR – MAYOR KASSI MACKIE- CITY CLERK

City of Craig
Memorandum

To: City Mayor & City Council

From: Joyce Mason, Treasurer

Date: July 18, 2018

RE: PERS Amendment

In the past temporary and seasonal employees were grouped together as a class of employment for enrollment in the Alaska Public Retirement System.

The retirement office issue a statement to the city in June stating seasonal and temporary employees are separate classifications. Our participation agreement with the state retirement system only exempts part time and temporary employees. The state suggested we amend our agreement if the city did not wish to include seasonal employees in the retirement system.

The city hires two or three employees each summer to do weed eating and help with the ice house. The employee must contribute 8% of their earnings and the city contributes 22% of the gross earnings. Most seasonal employee are not interested in contributing 8% of their pay for a short term employment.

If you have any questions please contact me at finance@craigak.com

Recommendation: Approve resolution 18-16 to amend the public retirement participation agreement to exclude seasonal employees.

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Division of Retirement and Benefits
PO Box 110203 Juneau, AK 99811-0203
Phone: (907) 465-4460
Fax: (907) 465-3086

PARTICIPATION AGREEMENT AMENDMENT NO. _Three____

The Public Employees' Retirement System (PERS) Participation Agreement entered into between the State of Alaska (hereafter referred to as the State) and the City of Craig, Alaska (employer name) on August 2, 2018 (date), and approved by the State on _____ (date)

is amended effective July 1, 2018 (date), by changing subparagraph 1

on page 1 to read as follows (type text of new subparagraph):

All permanent "full time" employees (those who work normally requires 30 or more hours of work each week) will participate in the Retirement System when employment commences. Temporary, seasonal, or part time employees will not participate in the Retirement System.

_____
Authorized Representative Signature

Tim O'Connor
Authorized Representative Name (please type/print)

City Mayor
Authorized Representative's Title

Approved:

_____
Administrator

_____
Date

CITY OF CRAIG
MEMORANDUM

To: Craig City Council
From: Jon Bolling, City Administrator
Date: July 27, 2018
RE: August Staff Report

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1. Water System Engineering Discussion

As I reported last month, city staff is working with engineers from the Alaska Native Tribal Health Consortium to consider water system improvements, with a focus on increasing our capacity to produce water from the city's water treatment plant at Port St. Nicholas. ANTHC engineering staff will be here during the week of August 6 to continue that effort. In the meantime, Craig Public Works Director Russell Dill and I agreed to begin moving toward decommissioning the wood stave water tank on Spruce Street, given the challenges involved with making the tank operational again. Staff will keep the council posted on this item.

2. PSN King Salmon Cost Recovery

The cost recovery effort at Port St. Nicholas is ahead of last year's effort in terms of fish caught, and revenue due to the city from the effort. The city's contractor for the cost recovery work will likely cease his efforts for the season soon.

3. PSN Road Upgrade

The Craig Tribal Association recently applied for funding to continue work upgrading the Port St. Nicholas Road. If the full amount of the requested funding is awarded, the road will see upgrades out to a point near the bridge at the Port St. Nicholas River, though paving would not extend that far. City staff wrote a letter of support for the funding request.

4. Proposed Mariculture Site near Craig

Mr. Markos Scheer will in Craig the first few days of August as Premium Aquatics, LLC works on permitting for a proposed kelp and oyster farm site near Craig. A public meeting is planned during the visit on Saturday, August 4 to take comments on the proposed farm. The meeting will also apparently include a mariculture presentation, similar to the format of the public meeting that took place here in Craig in 2017.

5. New Hire

Ms. Angela Matthews recently started as the new librarian for Craig. Angela will move here from Ketchikan with her family. Angela will train with outgoing Craig Librarian Kim Baxter for approximately two weeks. Please welcome her to Craig when you meet her. You can find her at the library in person, or call 826-3281.

6. Aquatic Center Project

I met with other city staff this week on initiating a project to refinish the basins of the lap pool and wading pool at the Craig Aquatic Center, and replace some failing concrete along the pool's gutters. The project is funded at $100,000 in the city's FY2019 budget. Staff has some additional research to complete before putting the work out to bid. Staff plans to have a contractor complete the work during next June's annual shutdown. I will keep the council posted on the project.

7. SE Conference Annual Meeting

A draft agenda for the 2018 Southeast Conference annual meeting is included under Reading of Correspondence in the council's August 2 agenda and meeting packet. If any of you has an interest in attending, let City Clerk Kassi Mackie know and she will assist in making travel arrangements.

8. Travel Schedule

- August 20-24 – personal travel
- September 11-14 – SE Conference annual meeting in Ketchikan

City of Craig
Memorandum

To: City Mayor & City Council

From: Joyce Mason, Treasurer

Date: August 2, 2018

RE: Monthly Report

The Supplemental budget for the general fund and the enterprise fund are on the agenda for the first reading of the ordinance. The net amount for the year is estimated to be over $200,000. This amount is before I reconcile the accounts receivable so the actual cash balance may be less. I will have a definite cash balance by the next council meeting. I would like the council to move some of these extra funds to the capital reserve account. I will have a memo for the next meeting. I wanted to bring it up now so you have time to consider this option.

I have attached the summary of the activity for the school funds. This year $200,000 was transferred from the general fund and the city received $447,128.12 from the National Forest Receipts program. The annual school support payment ($550,600) was paid to the Craig School in January and was taken from the prior NFR receipts. The funds from the city have been transferred to this fund are accounted for separately. We will continue to pay the school from the NFR funds till they are exhausted.

If you have any questions please contact me at finance@craigak.com

School Funds
6/30/2018

Year	NFR	Paid School	Excess	City Contribution to School Funds	Total
FY04	$ 805,626	$ 692,386	$ 113,241		
FY06	1,003,519	860,278	143,241		
FY05	1,107,861	860,278	247,583		
FY06	528,261	528,261	0		
FY07	594,437	594,437	-		
FY08	744,271	400,000	344,271		
FY09	1,101,332	592,676	508,656		
FY10	1,008,181	550,666	457,515	$ 50,000	
FY11	871,626	550,666	320,960	100,000	
FY12	836,001	550,666	285,335	150,000	
FY13	807,020	550,660	256,360	250,000	
FY14	657,344	550,660	106,684	300,000	
FY15	594,350	550,600	43,750	350,000	
FY16	486,879	550,600	(63,721)	100,000	
FY17	-	550,600	(550,600)		
FY18	447,128	550,600	(103,472)	200,000	
			2,109,803	1,500,000	3,609,803
		Interest		(3,609,803)	(3,609,803)
		Total Cash	**$ 2,109,803**	**$ (2,109,803)**	**$ -**

-

City Of Craig

Memorandum

To: Mayor Tim O'Connor; Craig City Council

From: Jessica Holloway, Aquatic Center Manager

Date: July 26, 2018

RE: July report

We made it through the Wave Runners Swim camp. I will say for as many kids that attended there was a lot of progress made. 50 swimmers from Craig, Ketchikan, Wrangell and Petersburg attended the Wave Runners Swim Camp. Each day they worked on a different stroke and technique for each stroke. Day one: butterfly, 2: freestyle 3: breast stroke 4: back stroke. By the end of day four most of the swimmers were worn out. Most of these guys are used to an hour to two hour at most practices. These guys were doing 5 hours in the water daily. On Friday July 27th the whole camp competed in a swim meet for times. We closed the pool for that day to accommodate. Almost all the swimmers including the Craig swimmers stayed at the school for the duration of the camp. The kids also had activities all day long when they were not in the water. From Yoga, painting and hiking. All in all the kids had a great time and I look forward hopefully doing this again with them.

I am excited to announce that I was accepted to the Red Cross Instructor Trainer Academy. This is a very hard academy to get into due to the pre requisites and the qualifications in order to even be considered. Currently there is one LGIT (Lifeguard Instructor Trainer) in Alaska. She is the only person that is able to certify and make a LGI (my highest certification.) and LGI is a Lifeguard Instructor. We are able to teach and certify lifeguards and classes. With only have one in Alaska and her living in Valdez and with all the changes that happened with Red Cross in 2017, Alaska lost over 60% of its LGI's. With this certification I will be able to help lessen the burden on the current LGIT with taking over Southeast. I have up to 1 year to complete the 4 day academy. Academies are held all over the country and at different times of the year. I am looking at attending January. That is the only month for the next 10 months that an academy will be held on the West coast. I have worked very hard for this opportunity and I am very excited.

We are currently still looking to recruit a full time and a part time position. I am looking for both positions to be over the age of 18.

If you have any questions or comments please feel free to call or e-mail me at any time.

CITY OF CRAIG
MEMORANDUM

To: Craig Mayor and City Council
From: Brian Templin, City Planner
Date: July 26, 2018
RE: Planning Department Staff Report – August 2018

1. Tract P Access Road. Staff is waiting on CTA for discussions regarding construction schedule and process.
2. Sidewalk Development. CTA has been working on a project to provide funding for design and construction of pedestrian improvements (sidewalks) on several streets in Craig. Staff will continue to work with CTA on the project.
3. Marijuana Retail Establishments. Staff is continuing to monitor the progress of the applications to the state for the two conditional permits that have been issued for commercial marijuana retail establishments. As of 7-26-18 the permit for Thee Treasure Chest LLC (Kit Kraft and John Wright) is still on the "under review" list, which means that the Marijuana Control Office staff is reviewing the submitted information for completeness. I expect that we will see an application submitted to the city for review in August unless the AMCO needs more information from the applicant. Once the application is deemed complete it will be submitted to the city clerk and reviewed by the Craig Police Chief and myself before being submitted to the council for any final comments/objections. Jaqie Weatherbee has still not initiated an application with the state at this time. There have not been any other applications for conditional use permits related to commercial marijuana in Craig. Staff will continue to monitor the state website for progress on these applications.
4. Emergency Management
    a. Craig Multi Hazard Mitigation Plan. The final draft of the plan is on the council agenda for adoption at the August 2nd council meeting.
    b. Alaska Shield 2019. The city and Craig Public Health were recently invited to participate in a statewide emergency exercise in April 2019. Craig Public Health maintains a plan to distribute vaccinations or medications to island residents in the event of a pandemic or other health disaster. We are working with several Craig agencies and communities throughout Prince of Wales Island on planning for participation in this exercise.
    c. POW Preparedness Fair. The Local Emergency Planning Committee and a number of partner agencies in Craig hold an island wide preparedness fair in September every other year. This year's fair is scheduled for September 21-22, 2018. We will bring in 150 3rd – 5th graders and their teachers for a day of preparedness activities and hold a public meeting the evening of the 21st. Thanks to CTA for their donation of the tribal hall on the 21st and to all of the agencies that are participating! On Saturday the 22nd there will be activities throughout Craig, including several water related classes and demonstrations at the Craig Pool. Thanks to the Aquatic Center for donating pool time for these great activities!
    d. LEPC and EMPG Grants. We were recently notified that the city was approved for the FY2019 LEPC and EMPG grants. The LEPC grant helps

to fund the local emergency planning committee and its activities. The LEPC focuses on efforts to draft emergency plans in communities and family preparedness. The EMPG grant offsets staff salary for time spent working on Emergency Management activities. Neither grant is particularly large, but both are very important to the city's emergency preparedness. Under the EMPG grant this year I will be working on:

i. Annual Review of the Hazard Mitigation Plan
ii. Continued update of the Craig Emergency Operations Plan and Annexes
iii. Continuity of Operations (COOP) Planning for City of Craig
iv. Working on vendor agreements for incident specific plans and annexes
v. Increasing citizen and volunteer engagement in training, exercises and planning
vi. Continuing to work on individual, family, school and community preparedness
vii. Continuing work on the exercise program using the Multi-Year Training and Exercise Plan as an exercise guide
viii. Continuing the training program using the Multi-Year Training and Exercise Plan as a training guide

e. American Red Cross. Prince of Wales has the second largest contingent of Red Cross volunteers in Southeast Alaska. Chaundell and I have been working over the past several months to make sure that training is available and the group is organized and equipped. The Red Cross team on POW is organized into four responsibilities. Some volunteers work solely on one response type but most volunteers are trained or training to work on multiple teams. The teams on POW are:

i. Disaster Action Team (DAT). This group of volunteers is trained to respond to disasters on the island ranging from single family house fires to community wide emergencies. The DAT members provide immediate financial assistance and referrals to help people immediately following a disaster. Across the US single family house fires account for over 90% of all o the Red Cross responses.
ii. Casework and Recovery Planning Team. This group of volunteers helps maintain client records, activates financial assistance cards and tracks clients after a disaster to make sure that they are getting any follow up assistance that the Red Cross can provide.
iii. Feeding Team. POW has the only Red Cross Disaster Kitchen team in Alaska. This team is trained to provide safe food preparation and service to large groups during a disaster. This group of volunteers prepare the lunch for the students and staff (about 175 people) for the preparedness fair every other year.

iv. Shelter Team. This group of volunteers are training to operate emergency shelters in Craig.

To: Craig City Council

From: Hans Hjort, Harbor Master

Date: July 26, 2018

RE: August Staff Report

Harbor department report August

- Construction has begun on the additional enclosure at the ice house. The enclosure will protect the delivery system from the rain as well as the hot sun that causes trouble during the summer.

- We have had a couple large water leaks in the harbor that we have had to repair. We upgrade the system each time we do one of these repairs. We have ordered more parts to do these upgrades.

- The haul out trailer had a pilot operated check valve fail last week. We have ordered that part and expect to be up and running by July 27th.

- The credit card machine for the false island crane has been installed and is almost ready to go online.

- Parking at the harbor has become an issue. We have begun monitoring it more closely. The police department has issued tickets for us.

- We continue to be busy taking care of the normal day to day operations of the harbor during our busy months.

Submitted by Angela Matthews

Reporting for 7/1/18-7/25/18

Library Stats:
Volunteer Hours: 48
Patron Visits: 1166
Circulation: 1942
Computer Usage: 534
Tests Proctored: 0
Meetings: 1
OWL Video Conferences: 0
Alaska Digital Library Usage: 102
Story Times: 3 / Attendance: 42
Inter-Library Loans: 18

New Library Director:
Hello! My name is Angela, and I am the new Director of the Craig Public Library. I am so excited to be here in Craig and to dive right into working with the city and with the residents. I was born in Ketchikan, and even though I lived down south from 1996-2015, Southeast Alaska has always been home. I have an Associates in Arts and an Associates in Technical Arts with a focus in Architectural Design. While earning my second degree I worked in the campus library as a circulation assistant. Reading has always been a favorite activity, and libraries have always been my happy place! ☺ I am extremely grateful to Jon Bolling and the others on the hiring team for giving me this opportunity—I know I have big shoes to fill, and I look forward to growing into my role here!

Library Programs:
- Every Friday, 10:00 am: Preschool Story Time
- Dolly Parton Imagination Library: Continuous registrations
- August 25th 10:00 am - Book Club. Title: The Unlikely Pilgrimage of Harold Fry
- June 7th- Aug 11th: Summer Reading Program

Summer Reading:
"Libraries Rock!" is the theme of the 2018 summer reading program. The program began on June 7th and will run through August 11th. We had 457 tickets entered for our second prize drawing, and the jars are already filling up for the third round! It is a joy to watch the kids come in excited to show how many books they've read and how many stickers they've earned. They seem just as excited for their friends to win the prizes as they would be to win themselves.

CITY OF CRAIG
MEMORANDUM

Date: July 26, 2018
To: Honorable Tim O'Connor, Craig City Council
Fr: RJ Ely, Police Chief
Re: Staff Report / July 2018

RJ Ely

ACTIVITY

Activity for June 30, 2018 through July 25, 2018. Dispatch Center took the following amount of calls for service:

Craig	867
Klawock	191
AST	6

DEPARTMENT OF MOTOR VEHICLES

Staying busy, drop offs are still very popular and keeping staff busy

DISPATCHER(S)

James R. Shook has been training and progressing very well.

OFFICER(S)

Fully staffed

OTHER

Radio Tec was due to fly in on 23rd, to install new consolette / bimb card, but wasn't able to fly over. Rescheduled and hope to have up and fix, later this month or first part of August.

Have seen increase in criminal cases, compared to prior years. Jail has been full for the past several weeks, with lots of transports to KCC.

Working with Chaundell, EMS to obtain AED's for each police vehicle.

EM / Eltrononic Monitoring has been utilized, working well. Few issues with certain devices, but overall have seen very few problems. Have new staff in training, for installing, monitoring these devices and defendants court ordered to such devices

PED / Pretrial Enforcement Division is continuing and we have entered another year agreement with State. With this, additional funding will be added to Jail Contract. Working with DOC / State about possibilities of CPD covering more area's on POW, if funding is sufficient.

Public works Report

I. **Streets and Alleys:**
   a. Brushing and weed trimming at designated street intersections as required.
   b. Continued brushing on PSN road, currently working on water line road, should be complete by mid next week.
   c. Street sweeping as required, on-going.
   d. PSN road maintenance performed as required
   e. TRACT P road maintenance performed as required.

II. **Sewer:**
   a. Daily and Monthly General maintenance and sampling at the wastewater treatment plant as required.

III. **Water:**
   a. Daily and Monthly General maintenance and sampling at the water treatment plant and distribution system as required.
   b. Received new Aluminum Sulfate pump system. Installation scheduled during off season, low demand.
   c. Continued preparation for silver bay water demand.
   d. Raw water main repair performed 07/23-24 as required.
   e. Monthly water meter readings scheduled to be complete by 07/26 as required.

IV. **Equipment:**

V. **Solid Waste:**
   a. Weekly pick-up process performed as require.

VI. **Requests:**

VII. **Projects:**
   a. Baseball concession /restroom facility pad complete.
   b. Lift station and appurtenance on order as required.

Craig Recreation Report to Craig City Council and Craig Mayor, August 2, 2018

Soccer started yesterday. We will play twice a week. Looks like Wednesday at 6pm and Saturday at 4pm. The program starts with age 4 and goes up to adult. Stephen Lucey is helping out again this year. I will have to tell you who else has volunteered at the meeting, since I am still recruiting.

There will be a Swap meet on August 4th in the Craig City Gym from 9 to 1pm. These are popular events. An indoor garage sale with both new and used items, a grown up treasure hunt.

A Wilderness survival camp is in the works for August. Details to follow. This is grant funded by the Prince Of Wales Health Network. They also funded the babysitting class.

The Salmon Social will happen on August 25th at the Web Loft. Working out the details.

Will be looking for help with the afterschool program that will be starting when school starts and following the Craig School Calendar. I am planning on going to see my mother who has started in home hospice care in October. Kim Baxter has offered to work for me while I am gone. She has also offered to help with a grant for the afterschool program. Michelle Winrod is helping clean the Youth/Recreation Center and doing some extra shifts such as Friday roller skating so I could take my birthday off.

I believe I have found some countertops that will work for the cabinets in the Youth Center. That will facilitate some inexpensive renovation and improve storage options.

I am looking forward to working with the new librarian. Have been trying to help her find a place to live. Having 3 adults, a child and 2 cats makes it more of a challenge.

Karate will be holding a seminar Sunday, August 5 thru Tuesday August 7 in the City Gym. Tis is a black belt seminar.

Skating, volleyball, dodgeball and Magic continue thru the summer. Roller derby has been sporadic. Should reinvigorate in the fall.

What a wonderful summer! Sunshine abounds. I have been taking time off to move in to my new home and take care of routine medical appointments. An added benefit is that I will get out of the position of losing my vacation time.

Gymnastics and more dance are on the horizon. Knitting club being formed. Sushi making in the works! Always looking for new ideas for programs.

Submitted by Victoria Merritt.

A Soggy soccer shot from a couple of years ago.

Greasy Pole winners!
And the fishing Derby winners 2018

Parks & Public Facilities

7/27/2018

Staff Report –July 2018

To: Craig Mayor and City Council

From: Douglas Ward

The good weather has allowed us to keep up with the weed and grass cutting. We are now fully staffed for the summer season. We continue to address day to day issues as they arise.

Projects completed:

- Install new front door on City Hall building.
- Remodel of reception area at City Hall.
- Ballfield grass cutting and prep for 4th of July celebrations.
- Replaced turbine meter on Unleaded pump.
- Install Credit Card machine on False Island crane.

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Projects currently in progress:

- Build new box covers for planters along Helipad road.
- Install wireless bridge from burn pit to P.D.
- Installation of security cameras throughout Harbor Facilities.

Work Orders Completed Since Last Report:

Parks & Public Facilities

7/27/2018

- High-1748-Wire up new morgue connex.xls
- High-1769-Replace faulty pulse meter on Unleaded fuel pump.xls
- High-1770-Cut hole in desk for cables. Build small shelf.xls
- High-1771-Replace flourescent tubes with LED in Patrolmans office.xls
- High-1772-Cut timbers for covered picnic areas.xls
- High-1773-Tighten door closer adjuster on handicap entrance door.xls
- High-1774-build monitor stand for Allison.xls
- High-1775-Replace front door at City Hall.xls
- High-1776-Pull alders at Medical clinic.xls
- High-1777-Install credit card machine at false island crane.xls
- High-1778-Drill hole in desk for cables.xls
- High-1779-Convert lighting to LED tubes in Patrolmans office.xls
- High-1780-Unplug clogged drain at Police Dept.xls
- High-1781-Troubleshoot Mens restroom heating.xls
- High-1782-Replace coil and valve cover gasket on JD 445.xls

CITY OF CRAIG

Account Statement - Period Ending June 30, 2018

ALASKA PERMANENT CAPITAL MANAGEMENT
Registered Investment Adviser

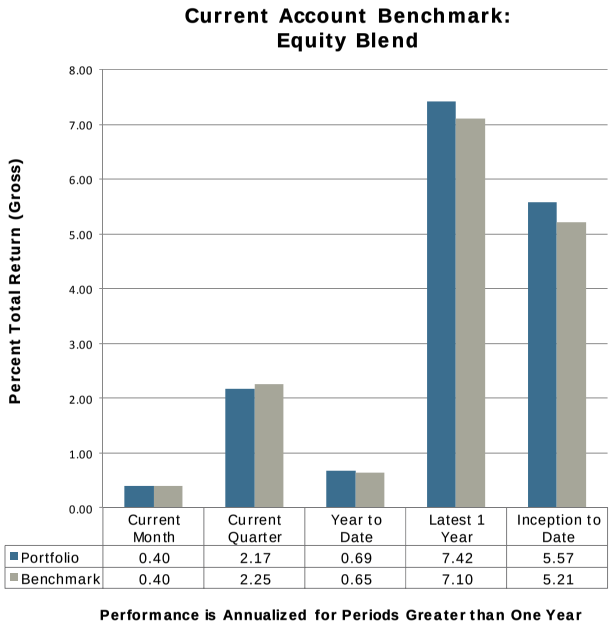
ACCOUNT ACTIVITY

Portfolio Value on 05-31-18	10,400,783
Contributions	0
Withdrawals	-373,250
Change in Market Value	-14,912
Interest	6,239
Dividends	50,566
Portfolio Value on 06-30-18	10,069,426

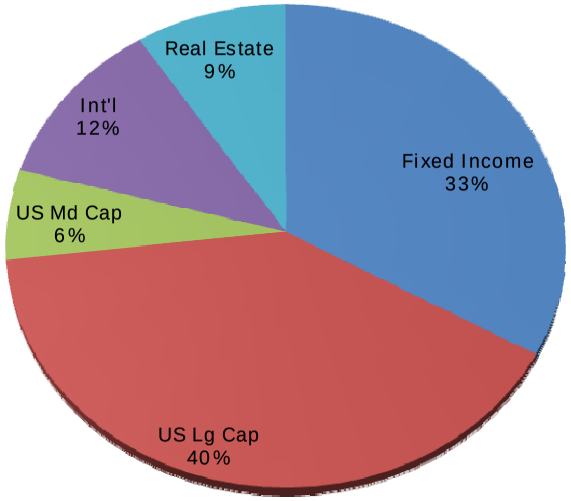
MANAGEMENT TEAM

Client Relationship Manager:	Amber Frizzell, AIF® Amber@apcm.net
Your Portfolio Manager:	Bill Lierman, CFA®
Contact Phone Number:	907/272 -7575

INVESTMENT PERFORMANCE



PORTFOLIO COMPOSITION



Clients are encouraged to compare this report with the official statement from their custodian.

Alaska Permanent Capital Management Co.

PORTFOLIO SUMMARY AND TARGET

CITY OF CRAIG

June 30, 2018

Asset Class & Target	Market Value	% Assets	Range
FIXED INCOME (34%)			
US Fixed Income (34.0%)	3,308,207	32.9	20% to 45%
Cash (0.0%)	43,730	0.4	na
Subtotal:	**3,351,937**	**33.3**	
EQUITY (56%)			
US Large Cap (40.0%)	4,014,944	39.9	30% to 50%
US Mid Cap (6.0%)	608,687	6.0	0% to 10%
Developed International Equity (10.0%)	1,161,255	11.5	5% to 15%
Subtotal:	**5,784,887**	**57.5**	
ALTERNATIVE INVESTMENTS (10%)			
Real Estate (10.0%)	932,602	9.3	5% to 15%
Subtotal:	**932,602**	**9.3**	
TOTAL PORTFOLIO	**10,069,426**	**100**	

Alaska Permanent Capital Management Co.
PORTFOLIO APPRAISAL
CITY OF CRAIG
June 30, 2018

Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
FNMA & FHLMC									
5,196	FHLMC POOL G14203 4.000% Due 04-01-26	104.56	5,434	102.83	5,344	0.05	208	17	1.43
	Accrued Interest				17	0.00			
			5,434		5,361	0.05		17	
CASH AND EQUIVALENTS									
	CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		22,645		22,645	0.22			
	DIVIDEND ACCRUAL		21,085		21,085	0.21			
			43,730		43,730	0.43			
CORPORATE BONDS									
50,000	TOYOTA MOTOR CREDIT CORP 2.100% Due 01-17-19	100.48	50,239	99.77	49,884	0.50	1,050	478	2.53
100,000	HSBC USA INC 2.375% Due 11-13-19	99.61	99,608	99.02	99,020	0.98	2,375	317	3.11
50,000	NBC UNIVERSAL MEDIA LLC 4.375% Due 04-01-21	109.20	54,602	102.59	51,296	0.51	2,187	547	3.38
50,000	AMERICAN EXPRESS CREDIT 2.250% Due 05-05-21	99.92	49,962	97.17	48,586	0.48	1,125	175	3.30
50,000	GILEAD SCIENCES INC 1.950% Due 03-01-22	96.28	48,141	95.26	47,631	0.47	975	325	3.33
50,000	UNITEDHEALTH GROUP INC 2.875% Due 03-15-22	102.56	51,279	98.64	49,321	0.49	1,437	423	3.27
50,000	COMCAST CORP 2.850% Due 01-15-23	101.83	50,917	96.69	48,346	0.48	1,425	657	3.65
50,000	AFLAC INC 3.625% Due 06-15-23	106.03	53,016	100.36	50,181	0.50	1,812	81	3.54
50,000	BANK OF NEW YORK MELLON 2.200% Due 08-16-23	97.83	48,916	93.86	46,931	0.47	1,100	412	3.52
50,000	JPMORGAN CHASE & CO 3.875% Due 02-01-24	105.18	52,590	100.66	50,330	0.50	1,937	807	3.74
50,000	METLIFE INC 3.600% Due 04-10-24	105.46	52,732	99.18	49,589	0.49	1,800	405	3.76
50,000	WELLS FARGO & COMPANY 3.300% Due 09-09-24	99.88	49,941	96.61	48,304	0.48	1,650	513	3.92
50,000	APPLIED MATERIALS INC 3.900% Due 10-01-25	107.96	53,978	102.03	51,014	0.51	1,950	487	3.58
50,000	ANHEUSER-BUSCH INBEV FIN 3.650% Due 02-01-26	103.01	51,506	97.89	48,947	0.49	1,825	760	3.97
50,000	TARGET CORP 2.500% Due 04-15-26	96.45	48,223	91.88	45,942	0.46	1,250	264	3.71

Alaska Permanent Capital Management Co.

PORTFOLIO APPRAISAL

CITY OF CRAIG

June 30, 2018

Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
50,000	LOWE'S COS INC 3.100% Due 05-03-27	100.08	50,039	94.51	47,255	0.47	1,550	250	3.84
	Accrued Interest				6,902	0.07			
			865,693		839,483	8.34		6,902	
DOMESTIC LARGE CAP EQUITY FUNDS/ETF									
14,800	SPDR S&P 500 ETF	141.17	2,089,264	271.28	4,014,944	39.87	NA		
DOMESTIC MID CAP EQUITY FUNDS/ETF									
3,125	ISHARES CORE S&P MIDCAP 400 ETF	96.95	302,974	194.78	608,687	6.04	NA		
INTERNATIONAL EQUITY FUNDS/ETF									
18,325	ISHARES ETF CORE MSCI EAFE	56.65	1,038,160	63.37	1,161,255	11.53	NA		
REAL ESTATE									
11,450	VANGUARD REIT ETF	61.81	707,673	81.45	932,602	9.26	NA		
U.S. TREASURY									
50,000	US TREASURY NOTES 1.500% Due 10-31-19	99.40	49,701	98.76	49,379	0.49	750	126	2.45
225,000	US TREASURY NOTES 1.250% Due 10-31-19	99.42	223,689	98.43	221,476	2.20	2,812	474	2.45
100,000	US TREASURY NOTES 3.500% Due 05-15-20	104.04	104,039	101.76	101,758	1.01	3,500	447	2.53
150,000	US TREASURY NOTES 1.750% Due 10-31-20	99.91	149,866	98.13	147,193	1.46	2,625	442	2.58
175,000	US TREASURY NOTES 1.875% Due 12-15-20	99.17	173,549	98.32	172,060	1.71	3,281	143	2.58
100,000	US TREASURY NOTES 2.125% Due 08-15-21	99.29	99,291	98.45	98,453	0.98	2,125	798	2.64
75,000	US TREASURY NOTES 2.000% Due 10-31-21	99.92	74,943	97.91	73,429	0.73	1,500	254	2.66
100,000	US TREASURY NOTES 2.000% Due 11-15-21	99.76	99,762	97.87	97,875	0.97	2,000	255	2.66
150,000	US TREASURY NOTES 1.625% Due 11-15-22	97.79	146,686	95.53	143,296	1.42	2,437	311	2.72
150,000	US TREASURY NOTES 2.625% Due 02-28-23	99.73	149,593	99.60	149,397	1.48	3,937	1,316	2.72
125,000	US TREASURY NOTES 2.500% Due 08-15-23	98.87	123,590	98.82	123,530	1.23	3,125	1,174	2.75
170,000	US TREASURY NOTES 1.375% Due 08-31-23	99.92	169,867	93.40	158,777	1.58	2,337	781	2.75
100,000	US TREASURY NOTES 2.375% Due 08-15-24	100.23	100,227	97.62	97,621	0.97	2,375	892	2.80

Alaska Permanent Capital Management Co.

PORTFOLIO APPRAISAL

CITY OF CRAIG

June 30, 2018

Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
100,000	US TREASURY NOTES 2.000% Due 08-15-25	98.81	98,807	94.73	94,727	0.94	2,000	751	2.82
100,000	US TREASURY NOTES 1.625% Due 05-15-26	101.05	101,055	91.47	91,473	0.91	1,625	208	2.84
150,000	US TREASURY NOTES 2.000% Due 11-15-26	97.14	145,717	93.71	140,572	1.40	3,000	383	2.85
50,000	US TREASURY NOTES 2.250% Due 11-15-27	95.30	47,652	95.06	47,529	0.47	1,125	144	2.85
	Accrued Interest				8,902	0.09			
			2,058,034		2,017,449	20.04		8,902	
AGENCIES									
100,000	FHLMC 3.750% Due 03-27-19	101.41	101,410	101.06	101,061	1.00	3,750	979	2.29
100,000	FHLMC 1.700% Due 09-29-20	99.73	99,730	97.76	97,765	0.97	1,700	434	2.73
100,000	FEDERAL HOME LOAN BANK - STEP UP 2.000% Due 11-14-22	99.86	99,865	96.96	96,962	0.96	2,000	256	2.74
100,000	FEDERAL FARM CREDIT BANK 2.850% Due 04-24-25	100.00	100,000	97.59	97,587	0.97	2,850	530	3.25
50,000	FHLB 3.625% Due 03-19-27	99.82	49,910	99.65	49,825	0.49	1,812	514	3.67
	Accrued Interest				2,713	0.03			
			450,915		445,914	4.43		2,713	
TOTAL PORTFOLIO			**7,561,877**		**10,069,426**	**100**	**78,327**	**18,534**	

Alaska Permanent Capital Management Co.

TRANSACTION SUMMARY

CITY OF CRAIG

From 06-01-18 To 06-30-18

Trade Date	Settle Date	Security	Quantity	Trade Amount
PURCHASES				
U.S. TREASURY				
06-27-18	06-28-18	US TREASURY NOTES 2.625% Due 02-28-23	150,000	149,593.05
				149,593.05
TRANSFERS OUT				
CASH AND EQUIVALENTS				
06-29-18		CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		100,000.00
06-29-18		CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		100,000.00
06-29-18		CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		70,650.00
06-29-18		CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		100,000.00
				370,650.00
				370,650.00
DEPOSITS AND EXPENSES				
MANAGEMENT FEES				
06-30-18	06-30-18	MANAGEMENT FEES		2,517.36
				2,517.36
DIVIDEND				
DOMESTIC LARGE CAP EQUITY FUNDS/ETF				
06-15-18	07-31-18	SPDR S&P 500 ETF		18,434.41

Alaska Permanent Capital Management Co.

TRANSACTION SUMMARY

CITY OF CRAIG

From 06-01-18 To 06-30-18

Trade Date	Settle Date	Security	Quantity	Trade Amount
DOMESTIC MID CAP EQUITY FUNDS/ETF				
06-26-18	07-02-18	ISHARES CORE S&P MIDCAP 400 ETF		2,650.90
INTERNATIONAL EQUITY FUNDS/ETF				
06-25-18	06-25-18	ISHARES ETF CORE MSCI EAFE		21,101.13
REAL ESTATE				
06-21-18	06-21-18	VANGUARD REIT ETF		8,379.11
				50,565.55

INTEREST

CASH AND EQUIVALENTS				
06-15-18	06-15-18	CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		58.11
CORPORATE BONDS				
06-15-18	06-15-18	AFLAC INC 3.625% Due 06-15-23		906.25
FNMA & FHLMC				
06-15-18	06-15-18	FHLMC POOL G14203 4.000% Due 04-01-26		17.72
U.S. TREASURY				
06-15-18	06-15-18	US TREASURY NOTES 1.875% Due 12-15-20		1,640.63
				2,622.71

Alaska Permanent Capital Management Co.

TRANSACTION SUMMARY

CITY OF CRAIG

From 06-01-18 To 06-30-18

Trade Date	Settle Date	Security	Quantity	Trade Amount
PRINCIPAL PAYDOWNS				
FNMA & FHLMC				
06-15-18	06-15-18	FHLMC POOL G14203 4.000% Due 04-01-26	119.83	119.83
				119.83
PURCHASED ACCRUED INTEREST				
U.S. TREASURY				
06-27-18	06-28-18	US TREASURY NOTES 2.625% Due 02-28-23		1,283.97
				1,283.97
SALES, MATURITIES, AND CALLS				
INTERNATIONAL EQUITY FUNDS/ETF				
06-01-18	06-05-18	ISHARES ETF CORE MSCI EAFE	900.0000	59,457.37
REAL ESTATE				
06-01-18	06-05-18	VANGUARD REIT ETF	525.0000	41,565.27
				101,022.64
WITHDRAW				
CASH AND EQUIVALENTS				
06-08-18	06-08-18	CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		2,600.20
				2,600.20

Alaska Permanent Capital Management Co.

REALIZED GAINS AND LOSSES

CITY OF CRAIG

From 06-01-18 Through 06-30-18

Date	Quantity	Security	Avg. Cost Basis	Proceeds	Gain Or Loss
06-01-18	900.0000	ISHARES ETF CORE MSCI EAFE	50,987.39	59,457.37	8,469.98
06-01-18	525.0000	VANGUARD REIT ETF	32,447.90	41,565.27	9,117.37
06-15-18	119.83	FHLMC POOL G14203 4.000% Due 04-01-26	125.30	119.83	-5.47
TOTAL GAINS					17,587.34
TOTAL LOSSES					-5.47
			83,560.59	**101,142.47**	**17,581.88**

Alaska Permanent Capital Management Co.

CASH LEDGER

CITY OF CRAIG

From 06-01-18 To 06-30-18

Trade Date	Settle Date	Tran Code	Activity	Security	Amount
CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT					
06-01-18			Beginning Balance		413,526.44
06-01-18	06-05-18	dp	Sale	ISHARES ETF CORE MSCI EAFE	59,457.37
06-01-18	06-05-18	dp	Sale	VANGUARD REIT ETF	41,565.27
06-08-18	06-08-18	wd	Withdrawal	from Portfolio	-2,600.20
06-15-18	06-15-18	dp	Interest	AFLAC INC 3.625% Due 06-15-23	906.25
06-15-18	06-15-18	dp	Interest	FHLMC POOL G14203 4.000% Due 04-01-26	17.72
06-15-18	06-15-18	dp	Interest	US TREASURY NOTES 1.875% Due 12-15-20	1,640.63
06-15-18	06-15-18	dp	Paydown	FHLMC POOL G14203 4.000% Due 04-01-26	119.83
06-15-18	06-15-18	dp	Interest	CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT	58.11
06-21-18	06-21-18	dp	Dividend	VANGUARD REIT ETF	8,379.11
06-25-18	06-25-18	dp	Dividend	ISHARES ETF CORE MSCI EAFE	21,101.13
06-27-18	06-28-18	wd	Purchase	US TREASURY NOTES 2.625% Due 02-28-23	-149,593.05
06-27-18	06-28-18	wd	Accrued Interest	US TREASURY NOTES 2.625% Due 02-28-23	-1,283.97
06-29-18	06-29-18	lo	Withdrawal	from Portfolio	-100,000.00
06-29-18	06-29-18	lo	Withdrawal	from Portfolio	-100,000.00
06-29-18	06-29-18	lo	Withdrawal	from Portfolio	-70,650.00
06-29-18	06-29-18	lo	Withdrawal	from Portfolio	-100,000.00
06-30-18			**Ending Balance**		**22,644.64**
DIVIDEND ACCRUAL					
06-01-18			Beginning Balance		0.00

Alaska Permanent Capital Management Co.

CASH LEDGER

CITY OF CRAIG

From 06-01-18 To 06-30-18

Trade Date	Settle Date	Tran Code	Activity	Security	Amount
06-15-18	07-31-18	dp	Dividend	SPDR S&P 500 ETF	18,434.41
06-26-18	07-02-18	dp	Dividend	ISHARES CORE S&P MIDCAP 400 ETF	2,650.90
06-30-18			**Ending Balance**		**21,085.31**

CITY OF CRAIG - SCHOOL FUNDS

Account Statement - Period Ending June 30, 2018

ALASKA PERMANENT CAPITAL MANAGEMENT
Registered Investment Adviser

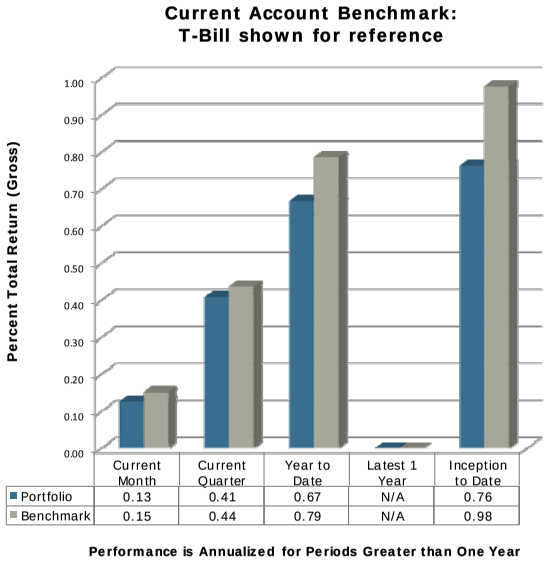
ACCOUNT ACTIVITY

Portfolio Value on 05-31-18	2,012,738
Contributions	0
Withdrawals	0
Change in Market Value	378
Interest	2,146
Dividends	0
Portfolio Value on 06-30-18	2,015,262

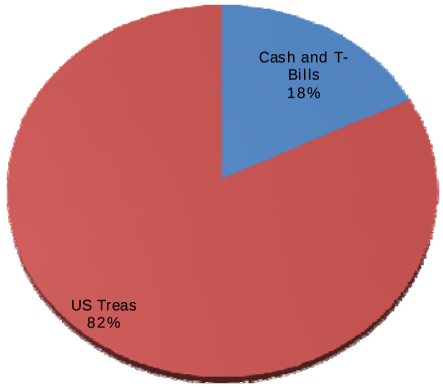
MANAGEMENT TEAM

Client Relationship Manager:	Amber Frizzell, AIF® Amber@apcm.net
Your Portfolio Manager:	Bill LIerman, CFA®
Contact Phone Number:	907/272-7575

INVESTMENT PERFORMANCE



PORTFOLIO COMPOSITION



Fixed Income Portfolio Statistics

Average Quality: AAA Yield to Maturity: 2.23% Average Maturity: 0.72 Yrs

Clients are encouraged to compare this report with the official statement from their custodian.

Alaska Permanent Capital Management Co.

PORTFOLIO APPRAISAL

CITY OF CRAIG - SCHOOL FUNDS

June 30, 2018

Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
CASH AND EQUIVALENTS									
	CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		9,916		9,916	0.49			
U.S. TREASURY									
550,000	US TREASURY NOTES 1.125% Due 01-15-19	99.53	547,415	99.44	546,909	27.14	6,187	2,854	2.17
550,000	US TREASURY NOTES 1.625% Due 04-30-19	99.44	546,936	99.44	546,906	27.14	8,937	1,506	2.31
560,000	US TREASURY NOTES 1.625% Due 07-31-19	99.25	555,810	99.18	555,408	27.56	9,100	3,796	2.39
	Accrued Interest				8,156	0.40			
			1,650,161		1,657,379	82.24		8,156	
TREASURY BILLS									
350,000	US TREASURY BILLS 0.000% Due 10-18-18	99.40	347,896	99.42	347,966	17.27	NA	0	1.94
TOTAL PORTFOLIO			**2,007,973**		**2,015,262**	**100**	**24,225**	**8,156**	

Alaska Permanent Capital Management Co.

TRANSACTION SUMMARY

CITY OF CRAIG - SCHOOL FUNDS

From 06-01-18 To 06-30-18

Trade Date	Settle Date	Security	Quantity	Trade Amount
PURCHASES				
TREASURY BILLS				
06-26-18	06-27-18	US TREASURY BILLS 0.000% Due 10-18-18	350,000	347,896.16
				347,896.16
INTEREST				
CASH AND EQUIVALENTS				
06-15-18	06-15-18	CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT		1.41
U.S. TREASURY				
06-15-18	06-15-18	US TREASURY NOTES 1.125% Due 06-15-18		1,940.63
				1,942.04
SALES, MATURITIES, AND CALLS				
U.S. TREASURY				
06-15-18	06-15-18	US TREASURY NOTES 1.125% Due 06-15-18	345,000	345,000.00
				345,000.00

Alaska Permanent Capital Management Co.

REALIZED GAINS AND LOSSES

CITY OF CRAIG - SCHOOL FUNDS

From 06-01-18 Through 06-30-18

Date	Quantity	Security	Avg. Cost Basis	Proceeds	Gain Or Loss
06-15-18	345,000	US TREASURY NOTES 1.125% Due 06-15-18	344,606.70	345,000.00	393.30
TOTAL GAINS					393.30
TOTAL LOSSES					0.00
			344,606.70	**345,000.00**	**393.30**

Alaska Permanent Capital Management Co.

CASH LEDGER

CITY OF CRAIG - SCHOOL FUNDS

From 06-01-18 To 06-30-18

Trade Date	Settle Date	Tran Code	Activity	Security	Amount
CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT					
06-01-18			Beginning Balance		10,869.98
06-15-18	06-15-18	dp	Interest	US TREASURY NOTES 1.125% Due 06-15-18	1,940.63
06-15-18	06-15-18	dp	Sale	US TREASURY NOTES 1.125% Due 06-15-18	345,000.00
06-15-18	06-15-18	dp	Interest	CHARLES SCHWAB LIQUID BANK DEPOSIT ACCOUNT	1.41
06-26-18	06-27-18	wd	Purchase	US TREASURY BILLS 0.000% Due 10-18-18	-347,896.16
06-30-18			**Ending Balance**		**9,915.86**

DRAFT Annual Meeting Agenda

Tuesday, September 11th

6:30 PM	*Reception*

Wednesday, September 12th

715 AM	*Registration & Breakfast*
8:00 AM	**Opening Ceremony**
9:00 AM	**Energy**
11:00 AM	**Southeast Alaska by the Numbers**
Noon	**Gubernatorial Forum Luncheon**
2:00 PM	**Workforce Development**
3:15 PM	**Timber Industry**
4:00 PM	**Mining Industry**
4:25 PM	**Alaska's Economy**
6:00 PM	***Community Reception***

Thursday, September 13th

7:15 AM	*Registration & Breakfast*
8:00 AM	*Polling Station Opens Southeast Conference Board Candidates Introduction*
8:10 AM	**Transportation and the Alaska Marine Highway System**
10:15	**Visitor Industry**
11:15 AM	**Health Care**
Noon	**Oil and Gas Luncheon**
1:30 PM	**Seafood**
2:35 PM	**Telecommunications Panel**
3:45 PM	**Legislative Issues Forum for Candidates and Legislators**
4:15 PM	***Ketchikan Business Highlight***
6:00 PM	**Banquet & Auction**

Friday, September 14th

8:00 AM	*Registration & Breakfast*
8:00 – 9:30 AM	**Breakout Groups (Possible)** *Southeast Conference of Mayors; Telecommunications; Solid Waste; Biomass (energy); Cruise Ship Port Communities; Arts; Tribal CEDS; Timber Committee*
10:00 AM	**Southeast Conference Annual Membership Business Meeting**
1:00	**Cruise Ship Luncheon**
Following	**Ketchikan Tours**

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Natural Resources

Division of Mining Land & Water
Southeast Regional Office

400 Willoughby Avenue, 4th Floor
PO Box 111020
Juneau, Alaska 99811-1020
Main: (907) 465-3400
Fax: (907) 465-3886

PUBLIC NOTICE
Preliminary Decision
ADL 108498
Shaan Seet, Incorporated

In accordance with AS 38.05.035, the Alaska Department of Natural Resources ("DNR"), Division of Mining, Land and Water ("DMLW"), Southeast Regional Office issued a preliminary decision for the following:

APPLICANT:	Shaan Seet, Incorporated
GEOGRAPHIC LOCATION:	Tide and submerged land underlying Ursua Channel, a navigable body of water, along the northern shoreline of San Juan Bautista Island. More specifically, the site is near Agueda Point, approximately four miles southwest of Craig at 55.4498 °N, 133.2483°W (WGS84).
LEGAL DESCRIPTION:	SW ¼ Section 15, SE ¼ Section 16, Township 74 South, Range 80 East, Copper River Meridian, containing 1.4 acres, more or less.
PROPOSED ACTION:	Issuance of an entry authorization and lease of tide and submerged land for a marine access facility.
PROPOSED TERM:	30 years
COMMENT DEADLINE:	August 22, 2018

You are invited to comment on this preliminary decision. In order to establish appeal rights regarding this decision, you are required by law to meaningfully participate in the decision process by commenting on this preliminary decision, in writing, prior to close of business on the date noted above. In order to ensure consideration, comments must be submitted to the DNR DMLW's Southeastern Regional Office by mail at P.O. Box 111020, Juneau, Alaska 99811-1020; by fax to (907) 465-3886; or by email to megs.harris@alaska.gov. Commenters should include their mailing address and telephone contact.

Following the deadline, all timely written comments will be considered, and this decision may be modified based on comments received. If it is determined that comments indicate the need for significant change to the decision, additional public notice will be given. If no significant changes are required, the preliminary decision, after any necessary minor changes, will be issued as a final decision. A copy of the final decision and instructions for filing an appeal will be sent to all persons who comment on this preliminary decision. Persons who do not submit written comments during this comment period will have no legal right to appeal the final decision.

Notice of this decision will be distributed in accordance with AS 38.05.945. An electronic copy of this notice and a copy of the preliminary decision will be posted for 30 calendar days on the Alaska Public Notice website at http://notice.alaska.gov/190814. Requests for copies of the preliminary decision can be directed to the Southeast Regional Office at the address above, or by contacting Megs Harris at (907) 465-3512 or megs.harris@alaska.gov.

The DNR DMLW reserves the right to waive technical defects in this notice.

CITY OF CRAIG
MEMORANDUM

To: Mayor and Craig City Council
From: Brian Templin, City Planner
Date: January 31, 2018
RE: Craig Multi Hazard Mitigation Plan

On November 21, 2017 Patrick LeMay from LeMay Engineering met with the Craig City Planner and several department heads and made a presentation to the Craig Planning Commission to kick off the public process for updating the city's hazard mitigation plan.

The final draft plan was submitted to the Craig Planning Commission and approved on February 7, 2018. The final draft plan was then sent to Alaska DHS&EM and FEMA for their review and approval.

This plan is intended to identify potential hazards and projects to mitigate damage to property and loss of life. The projects identified in the hazard mitigation plan are eligible for competitive hazard mitigation funding when those funds are available.

The final draft as adopted by the planning commission and approved by FEMA is attached. The final step is formal adoption by the Craig City Council.

Recommendation: Move to adopt the 2018 Craig Local Hazard Mitigation Plan.

U.S. Department of Homeland Security
FEMA Region 10
130 – 228th Street, SW
Bothell, Washington 98021

FEMA

July 5, 2018

Mr. Brent Nichols
State Hazard Mitigation Officer
Alaska Division of Homeland Security and Emergency Management
P.O. Box 5750
Fort Richardson, Alaska 99505-5750

Dear Mr. Nichols:

The Federal Emergency Management Agency (FEMA) Region 10 completed a pre-adoption review of the draft *City of Craig Hazard Mitigation Plan*. The attached Mitigation Plan Review Tool documents the Region's review and compliance with all required elements of 44 CFR Part 201.6, as well as identifies the jurisdictions participating in the planning process. This letter serves as Region 10's commitment to approve the plan upon receiving documentation of its adoption by participating jurisdictions.

Formal adoption documentation must be submitted to FEMA Region 10 by at least one jurisdiction within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. Once FEMA approves the plan, the jurisdictions are eligible to apply for FEMA Hazard Mitigation Assistance grants.

Please contact Brett Holt, Regional Mitigation Planning Program Manager, at (425) 487-4553 or brett.holt@fema.dhs.gov with any questions.

Sincerely,

(For) Tamra Biasco
Chief, Risk Analysis Branch
Mitigation Division

Enclosure

AS

City of Craig, Alaska

Multi-Hazard Mitigation Plan

Prepared by:
The City of Craig

LeMay Engineering & Consulting, Inc.

January 2018

Acknowledgements

City Council
Tim O'Connor, Mayor
Michael Douville
Dave Creighton
Don Pierce
Julie McDonald
Jan Trojan
Jim See

Craig Planning and Zoning Commission
Sharilyn Zellhuber, Chairman
Millie Schoonover
Barbara Stanley
Kevin McDonald
John Moots

City of Craig Staff
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Craig City Planner
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Technical Assistance
Brent Nichols, CFM, DHS&EM State Hazard Mitigation Officer

Photography
Brian Templin, January 2004
Eileen Bechtol, May 2008

The preparation of this plan was financed by funds from a grant from the Alaska Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency.

Table of Contents

Acknowledgements ii
List of Maps v
List of Tables v
List of Figures v
Acronyms vii
Sample Resolution – Planning Commission viii
Sample Resolution – City Council ix
Chapter 1. Planning Process and Methodology 1
Introduction 1
Plan Development 2
Location 2
Project Staff 2
Plan Research 3
Public Involvement 5
Plan Implementation 5
Monitoring, Evaluating and Updating the Plan 6
Continued Public Involvement 8
Chapter 2: Craig Community Profile and Capability Assessment 9
Community Overview 9
Government 10
History 10
Population 11
Economy 11
Transportation 12
Climate 12
Vegetation and Soils 12
Craig Capability Assessment 13
Local Resources 13
State Resources 16
Federal Resources 17
Other Funding Sources and Resources 19
Chapter 3: Risk Assessment, General Overview 21
Section 1. Requirements 21
Federal Requirements for Risk Assessment 21
Vulnerability Assessment Methodology 24
Section 2. Identifying Hazards 28
Identification of Natural Hazards Present in Craig 28
Section 3. Assessing Vulnerability 29
Overview 29
Hazard Asset Matrix 32
Vulnerability – Current and Future Structures in Hazard Zones 33
Estimating Potential Dollar Losses 33
Land Use and Development Trends 35
Chapter 4. Risk Assessment, Hazard Specific Sections 37

Section 1. Tsunami Hazard 37
Hazard Description 37
Location 39
Extent 41
Impact 41
Probability 42
Previous Occurrences 43
Tsunami Mitigation Goals and Projects 43
Section 2. Ground Failure Hazard 45
Hazard Description 45
Location 47
Extent 47
Impact 47
Probability 48
Previous Occurrences 48
Ground Failure Mitigation Goals and Projects 48
Section 3. Earthquake Hazard 49
Hazard Description 49
Location 51
Extent 52
Impact 53
Probability 54
Previous Occurrences 55
Earthquake Mitigation Goal and Projects 56
Section 4. Severe Weather 59
Hazard Description 59
Location 60
Extent 60
Impact 60
Probability 60
Previous Occurrences 60
Severe Weather Mitigation Goals and Projects 65
Section 5. Wildland Fire 68
Hazard Description 68
Location 69
Extent 69
Impact 69
Probability 69
Previous Occurrences 70
Wildland Fire Mitigation Goals and Projects 70
Section 6. Climate Change 71
Hazard Description 71
Location 71
Extent 71
Local Impact 71
Global Impact 71

Probability 71
Previous Occurrences 72
Section 7. Hazards not present in Craig 73
Volcanoes 73
Snow Avalanche 73
Floods/Erosion 73
Chapter 5: Mitigation Strategy 74
Benefit - Cost Review 74
Benefit-Cost Analysis 76
Eligible Projects for PDM and HMGP Funding 77
Benefit – Costs Review Listing Table 79
Mitigation Project Plan Table 86
Glossary of Terms 91

List of Maps

Map 1. Regional Map 9
Map 2. Critical Infrastructure 30
Map 3. Regional Infrastructure 31
Map 4. Tsunami Inundation 40

List of Tables

Table 1. Hazard Mitigation Planning Team 2
Table 2. Craig Plans 6
Table 3. Continued Plan Development 7
Table 4. Community Information 10
Table 5. Historical Population Data. 11
Table 6. Regulatory Tools 13
Table 7. Staff/Personnel Resources 15
Table 8. Fiscal Capabilities 16
Table 9. Risk Assessments - Federal Requirements 21
Table 10. Extent of Hazard Ranking 26
Table 11. Probability Criteria Table 26
Table 12. Hazards Identification and Decision to Profile 28
Table 13. Hazard Asset Matrix 32
Table 14. Potential Dollar Losses of Municipal Structures 33
Table 15. Craig Temperature Summary 64
Table 16. Craig Precipitation Summary 65
Table 17. Benefit Cost Review Listing 79
Table 18. Mitigation Project Plan 86

List of Figures

Figure 1. Tsunami Hazard Probability by Community 42
Figure 2. Earthquake Active Faults 50
Figure 3. AEIC Alaska Panhandle Seismicity 53
Figure 4. Statewide Earthquake Probability 54

Figure 5. Severe Weather Events by Type..... 63
Figure 6. Alaska All-Hazards Mitigation Plan - Fire Risk Map 70

Acronyms

AAC	Alaska Administrative Code
AEIC	Alaska Earthquake Information Center
AEIS	Alaska Economic Information System
BFE	Base Flood Elevation (100-year flood)
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CCMP	Craig Coastal Management Plan
DCCED	Department of Commerce, Community and Economic Development
DCRA	(DCCED) Division of Community and Regional Affairs
DEC	(Alaska) Department of Environmental Conservation
DHS&EM	(Alaska) Division of Homeland Security and Emergency Management
DGGS	(Alaska) Division of Geological and Geophysical Surveys
DNR	(Alaska) Department of Natural Resource
DOT&PF	(Alaska) Department of Transportation & Public Facilities
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
Federal DHS	Federal Department of Homeland Security
FEMA	Federal Emergency Management Agency
HMP	Hazard Mitigation Plan
HMPG	Hazard Mitigation Planning Grant
LEPC	Local Emergency Planning Committee
MHMP	Multi-Hazard Mitigation Plan
MSL	Mean Sea Level
NFIP	National Flood Insurance Program
NPS	National Park Service
NOAA	National Oceanographic and Atmospheric Administration
NWS	National Weather Service
PDM	Pre-Disaster Mitigation Grant
SSLEPC	Southern Southeast Local Emergency Planning Committee
UAF	University of Alaska, Fairbanks
USCOE	United States Army Corps of Engineers
USFS	United States Forest Service
USGS	U.S. Geological Survey
WCATWC	West Coast and Alaska Tsunami Warning Center

Sample Resolution – Planning Commission

Planning Commission
Resolution #____

Adoption of the City of Craig
Multi-Hazards Mitigation Plan

Whereas, the City of Craig recognizes the threat that local natural hazards pose to people and property; and

Whereas, undertaking hazard mitigation projects before disasters occur will reduce the potential for harm to people and property and save taxpayer dollars; and

Whereas, an adopted Multi-Hazards Mitigation Plan is required as a condition of future grant funding for mitigation projects; and

Whereas, the Craig Multi-Hazards Mitigation Plan has been sent to the Alaska Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for their review and has received preapproval pending City Council approval.

Now, therefore, be it resolved, that the Craig Planning Commission*,* hereby recommends adoption of the City of Craig Multi-Hazards Mitigation Plan as an official plan; and

Be it further resolved, that the Craig Planning Commission will submit the draft Multi-Hazard Mitigation Plan to the Craig City Council for final adoption.

Passed: _____
Date

_____
Planning Commission Chair

Sample Resolution – City Council

City of Craig, Alaska
Multi-Hazard Mitigation Plan Adoption Resolution
Resolution # _____

Adoption of the City of Craig
Multi-Hazard Mitigation Plan

Whereas, the City of Craig recognizes the threat that local natural hazards pose to people and property; and

Whereas, undertaking hazard mitigation projects before disasters occur will reduce the potential for harm to people and property and save taxpayer dollars; and

Whereas, an adopted Multi-Hazard Mitigation Plan is required as a condition of future grant funding for mitigation projects; and

Whereas, the Craig Multi-Hazard Mitigation Plan has been sent to the Alaska Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for their review and has received preapproval pending City Council approval.

Now, therefore, be it resolved, that the Craig City Council*,* hereby adopts the City of Craig Multi-Hazard Mitigation Plan as an official plan; and

Be it further resolved, that the City of Craig will submit the adopted Multi-Hazard Mitigation Plan to the Alaska Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency officials for final review and approval.

Passed: _____
Date

_____
Certifying Official

Chapter 1. Planning Process and Methodology

Introduction

Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. Mitigation activities may be implemented prior to, during, or after an incident. However, it has been demonstrated that hazard mitigation is most effective when based on an inclusive, comprehensive, long-term plan that is developed before a disaster occurs (FEMA 386-8).

City of Craig, 2003
(Templin)

Mitigation Plan regulations are found in the Code of Federal Regulations at 44 CFR Part 201. This plan has been developed using the regulations to ensure compliance with federal criteria.

Federal regulations specify that local mitigation plans be designed to help jurisdictions identify specific actions to reduce loss of life and property from natural hazards. It is not intended to help jurisdictions establish procedure to respond to disasters or write an emergency operations plan. The goal of mitigation is to decrease the need for response as opposed to increasing response capability (FEMA 386-8).

The scope of this plan is natural hazards: tsunami, ground failure (landslides), earthquake, severe weather hazards, wildland fire, and climate change hazards.

The City of Craig Multi-Hazard Mitigation Plan (MHMP) includes information to assist the City government and residents with planning to avoid potential future disaster losses. The plan provides information on natural hazards that affect Craig, descriptions of past disasters, and lists projects that may help the community prevent disaster losses. This five-year update of the MHMP was developed to help the community of Craig make decisions regarding natural hazards that affect the City.

Plan Development

Location

The City of Craig is located on the west coast of Prince of Wales Island. Craig lies 56 air miles northwest of Ketchikan, 750 air miles north of Seattle, and 220 miles south of Juneau. It lies approximately 55.476390° North Latitude and -133.14833° West Longitude. Craig is located in the Ketchikan Recording District. The area encompasses 6.7 square miles of land and 2.7 square miles of water.

Project Staff

Craig City Planner, Brian Templin, was the project manager for the City. LeMay Engineering & Consulting, Inc. was hired to update the plan. The Planning and Zoning Commission was the lead public body that reviewed the plan.

Brent Nichols, CFM, of the Division of Homeland Security & Emergency Management (DHS&EM) provided technical assistance and reviewed the draft of this plan.

Table 1 identifies the planning team.

Table 1. Hazard Mitigation Planning Team

Name	Title	Organization	Phone
Jon Bolling	City Administrator	City of Craig	(907) 826-3275
David Nelson	Craig Public Works	City of Craig	(907) 826-3405
Hans Hjort	Harbor Department	City of Craig	(907) 401-0995
RJ Ely	Police	City of Craig	(907) 826-3330
Sharilyn Zellhuber	Chair	City of Craig Planning and Zoning Commission	
John Moots	Member	City of Craig Planning and Zoning Commission	(907) 826-2327
Millie Schoonover	Member	City of Craig Planning and Zoning Commission	(907) 461-8461

Kevin McDonald	Member	City of Craig Planning and Zoning Commission	(907) 826-5750
Barbara Stanley	Member	City of Craig Planning and Zoning Commission	(907) 826-2428
Brian Templin	City Planner	City of Craig	(907) 826-3275
Patrick LeMay, PE	Planner/Consultant	LeMay Engineering & Consulting, Inc.	(907) 250-9038
Jennifer LeMay, PE, PMP	Lead Planner/Consultant	LeMay Engineering & Consulting, Inc.	(907) 350-6061
Audra Lehman, PhD	Planner/Consultant	LeMay Engineering & Consulting, Inc.	(806) 778-9742
Brent Nichols, CFM	State Hazard Mitigation Officer	DHS&EM	(907) 428-7085

Plan Research

The plan was developed utilizing existing Craig plans and studies as well as outside information and research.

1. *Alaska All-Hazard Mitigation Plan*. Prepared by and for DHS&EM. October 2013.

2. *Alaska DHS&EM Disaster Cost Index*. Prepared by and for DHS&EM. 2016.

3. *Coastal Management Plan, Revised*. Prepared by City Planner Brian Templin for the City of Craig. 2007.

4. *Community Quota Entity (CQE) Program, Economic Analysis and Business Plan.* Prepared by Brian Templin, City Planner for the City of Craig, Alaska. July 2004.

5. Draft *Comprehensive Plan*. City of Craig. 2017.

6. *Craig Community Economic Development Strategy (CCEDS).* Annual Report. May 2012.

7. *Tribal Hazard Mitigation Plan,* Craig Tribal Association. 2016.

8. *Craig Municipal Code, Title 18, Land Development Code.*

9. *Craig Shelter Operations Plan*. Prepared by and for the City of Craig and Craig School District. October 2007.

10. *Division of Community and Regional Affairs (DCRA) Community Information*: https://www.commerce.alaska.gov/web/dcra/ResearchAnalysis.aspx

11. *Emergency Response Plan*. Prepared by the City of Craig. 2004 (to be updated in 2018).

12. *FEMA How to Guides:*

- Getting Started: Building Support For Mitigation Planning (FEMA 386-1)
- Multi-Hazard Mitigation Planning Guidance, July 1, 2008 (FEMA 386-8)
- Understanding Your Risks: Identifying Hazards And Estimating Losses (FEMA 386-2)
- Developing The Mitigation Plan: Identifying Mitigation Actions And Implementing Strategies (FEMA 386-3)
- Bringing the Plan to Life: Implementing the Hazard Mitigation Plan (FEMA 386-4)
- Using Benefit-Cost Review in Mitigation Planning (FEMA 386-5)

13. *Tsunami Hazard Mapping of Alaska Coastal Communities*, Alaska GEO Survey News, Vol. 6, No. 2, Prepared by DGGS, June 2002.

14. *University of Alaska, Fairbanks, and Alaska Earthquake Information Center* (AEIC) website at: http://earthquake.alaska.edu/

15. West Coast and Alaska Tsunami Warning Center, NOAA, http://wcatwc.arh.noaa.gov/

General Hazard Planning Websites

American Planning Association:	http://www.planning.org
Association of State Floodplain Managers:	http://www.floods.org
Federal Emergency Management Agency:	http://www.fema.gov
Community Rating System:	http://www.fema.gov/national-flood-insurance-program-community-rating-system
Flood Mitigation Assistance Program:	https://www.fema.gov/flood-mitigation-assistance-grant-program
Hazard Mitigation Grant Program:	http://www.fema.gov/hazard-mitigation-grant-program
Individual Assistance Program:	http://www.fema.gov/individual-assistance-program-tools
Interim Final Rule:	https://www.fema.gov/media-library/assets/documents/4590

National Flood Insurance Program:	http://www.fema.gov/national-flood-insurance-program
Public Assistance Program:	http://www.fema.gov/public-assistance-local-state-tribal-and-non-profit/

Public Involvement

In Craig, collaboration and review are most beneficial when participants are provided with a draft document to review and critique. Rather than begin the process at the stakeholder level, it is necessary for a rough draft to be developed which can be used by the community to provide constructive feedback. LeMay Engineering & Consulting, Inc. developed an updated plan from the 2009 City of Craig MHMP.

Newsletter #1 was posted within the community of Craig inviting residents to attend the November 21, 2017 Planning and Zoning Commission meeting at Council Chambers. Patrick LeMay presented on the hazard mitigation planning process with respect to updating existing plans at this meeting. The Draft MHMP was available for a 30-day public review period beginning January 5, 2018. Newsletter #2 was posted within Craig announcing the availability of the Draft MHMP for public review and inviting community members to attend the February 7, 2018 Planning and Zoning Commission meeting to provide public comments on the Draft MHMP.

A copy of the Draft MHMP was available for public perusal at the City Hall, the Planning Department, the Fire Department, the Public Works Department, the City Library and online at the city website: http://www.craigak.com.

The Craig City Council will review and approve the plan after pre-approval by DHS&EM and FEMA.

Appendix A include public involvement documentation such as newsletters, jurisdiction commitment letters, meeting sign-in sheets, and comments.

Plan Implementation

The City of Craig Planning and Zoning Commission was the lead body for reviewing the plan and recommending approval to the Craig City Council. The Craig City Council will be responsible for adopting the Craig MHMP and all future updates. This governing body has the authority to promote sound public policy regarding hazards. The MHMP will be assimilated into other Craig plans and documents as they come up for review according to each plan's review schedule.

Table 2. Craig Plans

Document	Completed	Next Review
Craig Comprehensive Plan	2018	As needed
Craig Capital Improvement Priorities	Annually	Annually
Emergency Response Plan	In progress (will be completed in 2018)	Ongoing
Revised Craig Coastal Management Plan	2007	Program was discontinued in 2011
Community Economic Development Strategy/Overall Economic Development Plan	2012	2018/2019

Monitoring, Evaluating and Updating the Plan

Section §201.6(c)(4)(i) of the mitigation planning regulation requires that the plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

Monitoring the Plan

The Craig Planner or designee is responsible for monitoring the plan. On an annual basis, the Craig Planner will request a report from the agencies and departments responsible for implementing the mitigation projects in Chapter 5 of the plan. The compiled report will be provided to the Planning and Zoning Commission and City Council as information and noticed to the public. A report outlining all five years of the plan monitoring will be included in the plan update (see Appendix E).

Evaluating the Plan

The Craig Planner or designee will evaluate the plan during the five-year cycle of the plan. On an annual basis, concurrent with the report, above the evaluation should assess, among other things, whether:

- The goals and objectives address current and expected conditions.
- The nature, magnitude, and/or types of risks have changed.
- The current resources are appropriate for implementing the mitigation projects in Chapter 5.
- There are implementation problems, such as technical, political, legal or coordination issues with other agencies.

- The outcomes have occurred as expected (a demonstration of progress).
- The agencies and other partners participated as originally proposed.

Updating the Plan

The mitigation planning regulations at §201.6(d)(3) direct the update of Mitigation Plans.

Plans must be updated and resubmitted to FEMA for approval every five years in order to continue eligibility for FEMA hazard mitigation assistance programs. Plan updates must demonstrate that progress has been made in the past five years to fulfill commitments outlined in the previously approved plan. This involves a comprehensive review and update of each section of the plan and a discussion of the results of evaluation and monitoring activities described above. Plan updates may validate the information in the previously approved plan or may involve a major plan rewrite. A plan update may not be an annex to this plan; it must stand on its own as a complete and current plan.

The schedule for the plan update is to start the following tasks before the end of the five-year cycle:

- 3 years: Contact DHS&EM regarding plan update funding and procedure.
- 2.5 years: Contract for technical or professional services (if applicable).
- 2 years: Review of mitigation plan, develop planning process, and start the update.
- 6 months: State and FEMA review of plan. Update the plan, if necessary.
- 3 months: Finish the public review and approval process.

Table 3. Continued Plan Development

Hazard	Status	Hazard Identification Completion Date	Vulnerability Assessment Completion Date
Tsunami	Completed	2009; Mapping completed 2015; Updated 2017	2009; 2017
Ground Failure	Completed	2009; 2017	2009; 2017
Earthquake	Completed	2009; 2017	2009; 2017
Severe Weather	Completed	2009; 2017	2009; 2017
Wildland Fire	Completed	2017	2017
Climate Change	Completed	2017	2017

Continued Public Involvement

The following methods will be used for continued public involvement.

A copy of the MHMP will be put online at the city website: http://www.craigak.com

Places where the hazard plan will be kept:

- City Website
- Police Department
- Planning Department
- Fire Department
- Public Works Department
- Library

The City noted that they have the best participation rate on gaining feedback from their residents through electronic surveys with notices included in water/sewer bills that are mailed to residents. Once a year in March, a notice of a natural hazard survey will be included with the water/sewer bill. An electronic survey will be provided, and survey data will be compiled and included in the annual report, and considered during future plan updates. See Appendix E for survey.

Chapter 2: Craig Community Profile and Capability Assessment

Community Overview

Current Population:	1,102 (2016 DCCED Population Estimate)
Pronunciation:	Craig
Incorporation Type:	1st Class City
Borough:	Unorganized
Census Area:	Prince of Wales

Map 1. Regional Map

Government

The City of Craig was incorporated in 1922 as a second-class city under the laws of the Territory of Alaska. It became a first-class city in 1973. The city functions under a mayor/council form of government with the day-to-day operations of the city overseen by a City Administrator. There are six council members and a mayor, all of whom are elected.

The following table provides local and regional contact information for Craig.

Table 4. Community Information

Community Information	Contact Information and Type
City of Craig	P.O. Box 725 Craig, AK 99921 Phone: (907) 826-3275 Fax: (907) 826-3278 E-Mail: cityclerk@craigak.com Web: http://www.craigak.com
Village Corporation:	Shaan-Seet, Incorporated P.O. Box 690 Craig, AK 99921 Phone: (907) 826-3251 Fax: (907) 826-3980 E-Mail: contact@shaanseet.com
Village Council: **(BIA-Recognized IRA Council/ Also a Public Law 93-638 tribal gov't contractor)**	Craig Tribal Association P.O. Box 828 Craig, AK 99921 Phone: (907) 826-3996 Fax: (907) 826-3997 E-Mail: tribal.admin@craigtribe.org
Regional Non-Profit:	Central Council Tlingit & Haida Indian Tribes of Alaska 320 West Wiloughby Ave., Suite 300 Juneau, AK 99801 Phone: (907) 586-1432 Fax: (907) 586-8970 Web: http://www.ccthita.org/ E-Mail: webmaster@ccthita.org

History

Tlingit and Haida village sites and fish camps historically occupied the Craig area. The City was named after Craig Miller who established a cold storage cannery facility. In 1923, Craig was incorporated as a second-class city. The 1920s brought an expansion of the fishing industry. Tax revenues generated from the expanding fishing industry

funded the construction of a school, streetlights, and other city improvements. During this period, Native immigration from Hydaburg and Klawock increased to Craig. In the 1940s, the Forest Service brought radio service connecting Craig to the “outside” world. Improved transportation, communication, and job opportunities stabilized the City’s declining population in the 1970s. In 1973, the city became incorporated as a first-class city. Craig is predominantly a fishing community.

Population

Approximately 27% of the population is Alaska Native or part Alaska Native. During the 2010 U.S. Census, total-housing units numbered 537. The Alaska Department of Labor, Research, and Analysis lists the homeowner vacancy rate at 1.3%, and the 2010 rental vacancy rate at 6.9%.

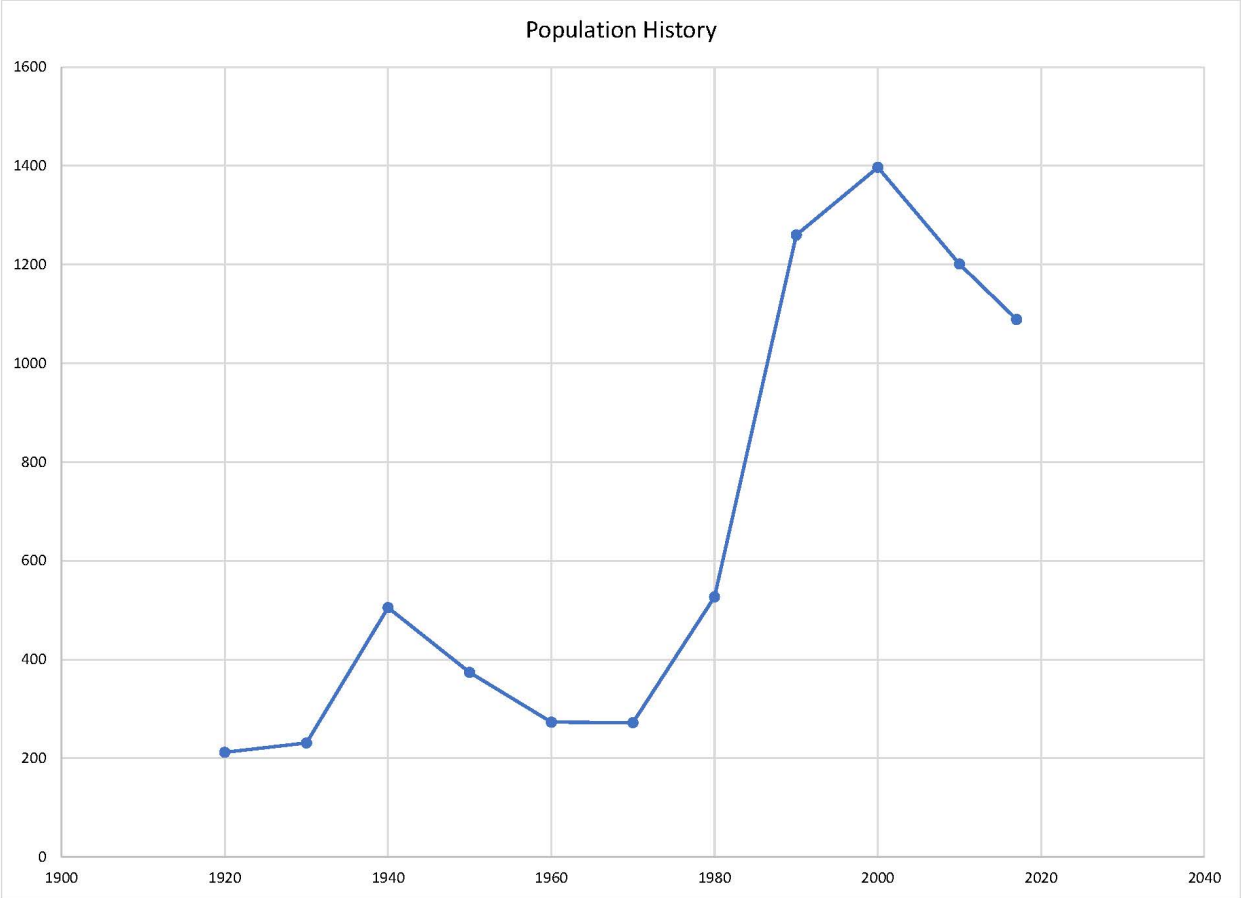


Table 5. Historical Population Data.

Economy

The economy in Craig is based on the fishing industry, logging support, and sawmill operations. A fish buying station, fish processors, and a cold storage plant are located in Craig. The number of residents that hold commercial fishing permits is 143. Craig has

grown as a service and transportation center for the Prince of Wales Island communities. Shaan-Seet Village Corporation timber operations, the Viking Lumber Co. sawmill, fishing, fish processing, government and commercial services provide most employment. Deer, salmon, halibut, shrimp and crab are harvested for recreational or subsistence purposes. Approximately 474 residents of Craig were employed as of 2015—approximately 62% of the eligible workforce population. The Alaska Department of Labor, Research, and Analysis identifies the Prince of Wales-Hyder Census Area as having an 11.7% unemployment rate.

Facilities

All households are fully plumbed. Water is supplied by a dam on North Fork Lake, then is treated, stored in a tank, and piped to homes. Sewage is collected by a piped gravity system, and receives primary treatment before discharge into Bucareli Bay. Refuse is collected and deposited in Klawock's landfill. The City also participates in annual hazardous waste collection events. Alaska Power & Telephone Co. owns and operates diesel power systems and a hydroelectric facility at Black Bear Lake, which provides electricity to many Prince of Wales Island communities.

Transportation

Scheduled air transportation to Ketchikan is available from the nearby Klawock airport. The City owns and maintains a seaplane base at Klawock Inlet. The State ferry no longer serves Prince of Wales Island.

There are two small boat harbors, at North Cove and South Cove, a small transient float and dock in the downtown area, and boat launch ramps at North Cove and False Island.

The J.T. Brown Marine Industrial Center on False Island, on the north side of Crab Bay includes a boat launch ramp and a vessel haul out trailer capable of moving boats up to 60 tons out of the water to adjacent work and storage areas.

Freight arrives by plane into the Klawock Airport and various seaplane bases; barge into Thorne Bay; and ferry into Hollis. A paved road exists between Hollis, Craig, Klawock, Thorne Bay and north to the Coffman Cove junction on the United States Forest Service (USFS) 20 Road and into Coffman Cove on the USFS 30 Road.

Climate

Prince of Wales Island is dominated by a cool, moist, maritime climate. Summer temperatures range from 49 to 63 degrees Fahrenheit (°F). Winter temperatures range from 32 to 42 (°F). Average annual precipitation is 97 inches, and average annual snowfall is 23 inches. Gale winds are common in the fall and winter months.

Vegetation and Soils

Sitka spruce and hemlock forest thrive in Craig's cool, moist, maritime climate. Western hemlocks are the dominant coniferous species, followed by the Sitka Spruce, with a scattering of mountain hemlock, western red cedar, and Alaska cedar. The understory is characterized by rusty menziesia, devil's club, salal, and a variety of wild berries. Mosses, ferns, bunchberry, twisted stalk, and deerberry are the dominant ground cover species. Black cottonwood and red alder occur parallel to streams. Heaths, grasses, and low growing plants create the Alpine flora at elevations above the timberline. Muskegs dominate areas with poor soil drainage. Muskegs are composed of sphagnum mosses, sedges, and varying amount of rushes, crowberry, Labrador tea, bog rosemary, Oregon crab apple, shore pine, and stunted conifers.

Craig sits atop highly metamorphosed volcanic and sedimentary rocks with some igneous intrusions. A variety of soils cover the area including glacial till, crushed rock, beach gravel, and organic and root soils. Organic soils formed entirely of plant material in various stages of decomposition create muskegs in local lowlands.

Craig Capability Assessment

Local Resources

Craig has a number of planning and land management tools that will allow it to implement hazard mitigation activities. The resources available in these areas are summarized in the following tables.

Table 6. Regulatory Tools

Regulatory Tools (ordinances, codes, plans)	Local Authority (Yes/No)	Year of Most Recent Update
Building code (Development code)	Yes	
Zoning ordinance	Yes	
Subdivision ordinance or regulations	Yes	
Special purpose ordinances (floodplain management, stormwater management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	No	
Growth management ordinances (also called "smart growth" or anti-sprawl programs)	Yes	
Site plan review requirements	No	

Comprehensive plan	Yes	2018
A capital improvements plan	Yes	Annually
An economic development plan	Yes	Annually
An emergency response plan	Yes	In Progress
A post-disaster recovery plan	No	
Real estate disclosure requirements	No	

Table 7. Staff/Personnel Resources

Staff/Personnel Resources	Yes/No	Department/Agency and Position
City Administrator	Yes	Administration
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	No	
Planners or Engineer(s) with an understanding of natural and/or human-caused hazards	Yes	City Planner
Floodplain manager	No	
Surveyors	No	
Staff with education or expertise to assess the community's vulnerability to hazards	Yes	City Planner
Personnel skilled in GIS and/or HAZUS	Yes	City Planner
Scientists familiar with the hazards of the community	No	None
Emergency manager	Yes	
Grant writers	Yes	

Table 8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes or No)
Community Development Block Grants (CDBG)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
Fees for sewer	Yes
Impact fees for homebuyers or developers for new developments/homes	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax and revenue bonds	Yes
Incur debt through private activity bonds	No
Withhold spending in hazard-prone areas	No

State Resources

- **Alaska DHS&EM** is responsible for coordinating all aspects of emergency management for the State of Alaska. Public education is one of its identified main categories for mitigation efforts.

Improving hazard mitigation technical assistance for local governments is another high priority list item for the State of Alaska. Providing hazard mitigation training, current hazard information, and the facilitation of communication with other agencies would encourage local hazard mitigation efforts. DHS&EM provides resources for mitigation planning on their *Website* at http://www.ready.alaska.gov.

- **DCCED DCRA** Provides training and technical assistance on all aspects of the National Flood Insurance Program and flood mitigation.

Other state resources include:

- **Division of Senior Services:** Provides special outreach services for seniors, including food, shelter, and clothing.

- **Division of Insurance:** Provides assistance in obtaining copies of policies and provides information regarding filing claims.

- **Department of Military and Veterans Affairs:** Provides damage appraisals and settlements for VA-insured homes, and assists with filing of survivor benefits.

Federal Resources

The federal government requires local governments to have a hazard mitigation plan in place to be eligible for funding opportunities through FEMA such as the Pre-Disaster Mitigation Assistance Program and the Hazard Mitigation Grant Program. The Mitigation Technical Assistance Programs available to local governments are also a valuable resource. FEMA may also provide temporary housing assistance through rental assistance, mobile homes, furniture rental, mortgage assistance, and emergency home repairs. The Disaster Preparedness Improvement Grant also promotes educational opportunities with respect to hazard awareness and mitigation.

FEMA, through its Emergency Management Institute, offers training in many aspects of emergency management, including hazard mitigation. FEMA has also developed a large number of documents that address implementing hazard mitigation at the local level. Five key resource documents are available from FEMA Publication Warehouse (1-800-480-2520) and are briefly described below:

- **How-to Guides.** FEMA has developed a series of how-to guides to assist states, communities, and tribes in enhancing their hazard mitigation planning capabilities. The first four guides mirror the four major phases of hazard mitigation planning used in the development of the Craig Hazard Mitigation Plan. The last five how-to guides address special topics that arise in hazard mitigation planning such as conducting cost-benefit analysis and preparing multi-jurisdictional plans. The use of worksheets, checklists, and tables make these guides a practical source of guidance to address all stages of the hazard mitigation planning process. They also include special tips on meeting Disaster Mitigation Act (DMA) 2000 requirements.

- **Post-Disaster Hazard Mitigation Planning Guidance for State and Local Governments.** FEMA DAP-12, September 1990. This handbook explains the basic concepts of hazard mitigation and shows state and local governments how they can develop and achieve mitigation goals within the context of FEMA's post-disaster hazard mitigation planning requirements. The handbook focuses on approaches to mitigation, with an emphasis on multi-objective planning.

- **Mitigation Resources for Success CD.** FEMA 372, September 2001. This CD contains a wealth of information about mitigation and is useful for state and local government planners and other stakeholders in the mitigation process. It provides

mitigation case studies, success stories, information about Federal mitigation programs, suggestions for mitigation measures to homes and businesses, appropriate relevant mitigation publications, and contact information.

- **A Guide to Federal Aid in Disasters.** FEMA 262, April 1995. When disasters exceed the capabilities of state and local governments, the President's disaster assistance program (administered by FEMA) is the primary source of federal assistance. This handbook discusses the procedures and process for obtaining this assistance, and provides a brief overview of each program.

- **The Emergency Management Guide for Business and Industry.** FEMA 141, October 1993. This guide provides a systematic approach to emergency management planning, response, and recovery. It also details a planning process that businesses can follow to better prepare for a wide range of hazards and emergency events. This effort can enhance a business's ability to recover from financial losses, loss of market share, damages to equipment, and product or business interruptions. This guide could be of great assistance to Craig businesses.

Other federal resources include:

- **Department of Agriculture.** Assistance provided includes: Emergency Conservation Program, Non-Insured Assistance, Emergency Watershed Protection, Rural Housing Service, Rural Utilities Service, and Rural Business and Cooperative Service.

- **Department of Energy, Office of Energy Efficiency and Renewable Energy, Weatherization Assistance Program.** This program minimizes the adverse effects of high energy costs on low-income, elderly, and handicapped citizens through client education activities and weatherization services such as an all-around safety check of major energy systems, including heating system modifications and insulation checks.

- **Department of Housing and Urban Development, Office of Homes and Communities, Section 108 Loan Guarantee Programs.** This program provides loan guarantees as security for federal loans for acquisition, rehabilitation, relocation, clearance, site preparation, special economic development activities, and construction of certain public facilities and housing.

- **Department of Housing and Urban Development, Community Development Block Grants.** Administered by Alaska Department of Commerce, Community and Economic Development (DCCED) DCRA. Provides grant assistance and technical assistance to aid communities in planning activities that address issues detrimental to the health and safety of local residents, such as housing rehabilitation, public services, community facilities, and infrastructure improvements that would primarily benefit low- and moderate-income persons.

- **Department of Labor, Employment and Training Administration, Disaster Unemployment Assistance.** Provides weekly unemployment subsistence grants for those who become unemployed because of a major disaster or emergency. Applicants must have exhausted all benefits for which they would normally be eligible.

- **Federal Financial Institutions.** Member banks of FDIC, FRS or FHLBB may be permitted to waive early withdrawal penalties for Certificates of Deposit and Individual Retirement Accounts.

- **Internal Revenue Service, Tax Relief.** Provides extensions to current year's tax return, allows deductions for disaster losses, and allows amendment of previous tax returns to reflect loss back to three years.

- **United States Small Business Administration.** May provide low-interest disaster loans to individuals and businesses that have suffered a loss due to a disaster. Requests for SBA loan assistance should be submitted to the Alaska Division of Homeland Security and Emergency Management.

Other resources: The following are *website*s that provide focused access to valuable planning resources for communities interested in sustainable development activities.

- **Federal Emergency Management Agency,** http://www.fema.gov – includes links to information, resources, and grants that communities can use in planning and implementation of sustainable measures.

- **American Planning Association,** http://www.planning.org – a non-profit professional association that serves as a resource for planners, elected officials, and citizens concerned with planning and growth initiatives.

- **Institute for Business and Home Safety,** http://ibhs.org – an initiative of the insurance industry to reduce deaths, injuries, property damage, economic losses, and human suffering caused by natural disasters. Online resources provide information on natural hazards, community land use, and ways citizens can protect their property from damage.

Other Funding Sources and Resources

- **Real Estate Business.** State law for properties within flood plains requires real estate disclosure.

- **American Red Cross.** Provides for the critical needs of individuals such as food, clothing, shelter, and supplemental medical needs. Provides recovery needs such as furniture, home repair, home purchasing, essential tools, and some bill payment may be provided.

- **Crisis Counseling Program.** Provides grants to State and City mental health departments, which in turn provide training for screening, diagnosing and counseling techniques. Also provides funds for counseling, outreach, and consultation for those affected by disaster.

Chapter 3: Risk Assessment, General Overview

Section 1. Requirements

> Section 201.6(c)(2) of the mitigation planning regulation requires local jurisdictions to provide sufficient hazard and risk information from which to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. (FEMA 386-8)

The goal of mitigation is to reduce the future impacts of a hazard including loss of life, property damage, and disruption to local and regional economies, environmental damage and disruption, and the amount of public and private funds spent to assist with recovery.

Mitigation efforts begin with a comprehensive risk assessment. A risk assessment measures the potential loss from a disaster event caused by an existing hazard by evaluating the vulnerability of buildings, infrastructure, and people. It identifies the characteristics and potential consequences of hazards and their impact on community assets.

Federal Requirements for Risk Assessment

Federal regulations for hazard mitigation plans outlined in 44 CFR Section §201.6(c)(2) include a requirement for a risk assessment. This risk assessment requirement is intended to provide information that will help the community identify and prioritize mitigation activities that will prevent or reduce losses from the identified hazards. The federal criteria for risk assessments and information on how the Craig MHMP meets those criteria are outlined below:

Table 9. Risk Assessments - Federal Requirements

Section §201.6(c)(2) Requirement	Where Requirement is Addressed in the Craig Multi-Hazard Mitigation Plan
Identifying Hazards §201.6(c)(2)(i) The risk assessment *shall* include a description of the type . . . of all-natural hazards that can affect the jurisdiction . . .	Chapter 3, Section 2 identifies tsunami, ground failure, earthquake, severe weather, wildland fire, and climate change as the top six natural hazards in Craig.

Section §201.6(c)(2) Requirement	Craig Multi-Hazard Mitigation Plan Where it is Addressed in Plan
Profiling Hazards §201.6(c)(2)(i) The risk assessment *shall* include a description of the . . . location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.	Chapter 4, Sections 1-6 include hazard-specific sections of the Craig MHMP and profiles the natural hazards that may affect the City. The Plan includes **location, extent, probability, and impact** for each natural hazard identified. The MHMP also provides hazard specific information on **past occurrences** of hazard events.
Assessing Vulnerability: Overview §201.6(c)(2)(i) The risk assessment *shall* include a description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.	Chapter 3, Section 3 discusses vulnerabilities for the City of Craig. Chapter 4, Sections 1-6 contain overall summaries of each hazard and the impacts on the community are contained in each hazard specific section in the chapter. Section 7 contains information regarding hazards not profiled in this MHMP.
Assessing Vulnerability: Addressing Repetitive Loss Properties §201.6(c)(2)(ii) The risk assessment in all plans approved after October 1, 2008 must also address National Flood Insurance Program (NFIP) insured structures that have been repetitively damaged by floods.	Craig does not participate in the National Flood Insurance Program.
Assessing Vulnerability: Identifying Structures §201.6(c)(2)(ii)(A) The plan *should* describe vulnerability in terms of the types and number of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.	Chapter 3, Section 1, Table 13 lists existing structures, infrastructure, and critical facilities located in the identified hazard areas. The narrative describes vulnerability in terms of the types and number of future buildings.
Assessing Vulnerability: Estimating Potential Losses §201.6(c)(2)(ii)(B) The plan *should* describe vulnerability in terms of an estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate.	Chapter 3, Section 2, Table 14 estimates potential dollar losses to municipal owned facilities. The methodology used to obtain the losses is described following the table.

Assessing Vulnerability: Land Uses and Development Trends §201.6(c)(2)(ii)(C) The plan should describe vulnerability in terms of providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.	The last section of Chapter 3 contains this information.

Vulnerability Assessment Methodology

The goal of mitigation is to reduce the future impacts of a hazard including loss of life, property damage, and disruption to local and regional economies, environmental damage and disruption, and the amount of public and private funds spent to assist with recovery.

Mitigation efforts begin with a comprehensive risk assessment. A risk assessment measures the potential loss from a disaster event caused by an existing hazard by evaluating the vulnerability of people, buildings, and infrastructure. It identifies the characteristics and potential consequences of hazards and their impact on community assets.

A risk assessment typically consists of three components: hazards identification, vulnerability assessment, and risk analysis.

1. ***Hazards Identification*** - The first step in conducting a risk assessment is to identify, profile hazards, and their possible effects on the jurisdiction. This information can be found in Chapter 3: Hazards.

2. ***Vulnerability Assessment*** – Step 2 is to identify the jurisdiction's vulnerability; the people, infrastructure, and property that are likely to be affected. It includes everyone who enters the jurisdiction including employees, commuters, shoppers, tourists, and others.

Populations with special needs such as children, the elderly, and the disabled should be considered; as should facilities such as the hospital, health clinic, senior housing, and schools because of their additional vulnerability to hazards.

Inventorying the jurisdiction's assets to determine the number of buildings, their value, and population in hazard areas can also help determine vulnerability. A jurisdiction with many high-value buildings in a high-hazard zone will be extremely vulnerable to financial devastation brought on by a disaster event.

Identifying hazard prone critical facilities is vital because they are necessary during response and recovery phases.

Critical facilities include:

- Essential facilities, which are necessary for the health and welfare of an area and are essential during response to a disaster, including hospitals, fire stations, police stations, and other emergency facilities;
- Transportation systems such as highways, airways and waterways;
- Utilities, water treatment plants, communications systems, power facilities;

- High potential loss facilities such as bulk fuel storage facilities;
- Hazardous materials sites; and
- Other items to identify critical facilities include economic elements, areas that require special considerations, historic, cultural and natural resource areas, and other jurisdiction-determined important facilities.

3. ***Risk Analysis*** – The next step is to calculate the potential losses to determine which hazard will have the greatest impact on the jurisdiction. Hazards should be considered in terms of their frequency of occurrence and potential impact on the jurisdiction. For instance, a possible hazard may pose a devastating impact on a community but have an extremely low likelihood of occurrence. Such a hazard must take lower priority than a hazard with only moderate impact but a very high likelihood of occurrence.

For example, there might be several schools exposed to one hazard but one school may be exposed to four different hazards. A multi-hazard approach will identify such high-risk areas and indicate where mitigation efforts should be concentrated.

The purpose of a vulnerability assessment is to identify the assets of a community that are susceptible to damage should a hazard incident occur.

Facilities are designated as critical if they are: (1) vulnerable due to the type of occupant (children, disabled or elderly); (2) critical to the community's ability to function (roads, power generation facilities, water treatment facilities, etc.); (3) have a historic value to the community (museum, cemetery); or (4) critical to the community in the event of a hazard occurring (emergency shelter, etc.).

Please see Table 13 - Hazard Assets Matrix for an inventory of critical facilities and their vulnerability to identified hazards.

This hazard plan includes an inventory of critical facilities from the records and land use map (Appendix B).

The description of each of the identified hazards includes a narrative and in some cases a map of the following information:

- The **location** or geographical area(s) of the hazard in the community.
- The **extent** (i.e. magnitude or severity) of potential hazard events, based on the criteria listed in Table 10,

Table 10 was used to rank the extent of each hazard. Sources of information to determine the extent include the 2013 State of Alaska *All-Hazard Mitigation Plan*, historical or past occurrences, and other outside sources.

Table 10. Extent of Hazard Ranking

Magnitude/Severity	Criteria to Determine Extent
Catastrophic	Multiple deaths Complete shutdown of facilities for 30 or more days More than 50% of property severely damaged
Critical	Injuries and/or illnesses result in permanent disability Complete shutdown of critical facilities for at least 2 weeks More than 25% of property is severely damaged
Limited	Injuries and/or illnesses do not result in permanent disability Complete shutdown of critical facilities for more than one week More than 10% of property is severely damaged
Negligible	Injuries and/or illnesses are treatable with first aid Minor quality of life lost Shutdown of critical facilities and services for 24 hours or more Less than 10% of property is severely damaged

- The **impact** of each hazard to the community.
- **Past occurrences** of each hazard to the community.
- The **probability** of the likelihood that the hazard event would occur in an area.

The following table, taken from the 2013 State of Alaska *All-Hazard Mitigation Plan* categorizes the probability of a hazard occurring. Sources of information to determine the probability for each specific hazard include the 2013 State of Alaska *Hazard Mitigation Plan*, historical or past occurrences, and information from the location of the hazard.

Table 11. Probability Criteria Table

Probability	Criteria Used to Determine Probability
4 - Highly Likely	Event is probable within the calendar year. Event has up to 1 in 1 year's chance of occurring (1/1=100%). History of events is greater than 33% likely per year. Event is "Highly Likely" to occur.
3 - Likely	Event is probable within the next three years. Event has up to 1 in 3 year's chance of occurring (1/3=33%). History of events is greater than 20% but less than or equal to 33% likely per year. Event is "Likely" to occur.
2 - Possible	Event is probable within the next five years. Event has up to 1 in 5 year's chance of occurring (1/5=20%). History of events is greater than 10% but less than or equal to 20% likely per year. Event could "Possibly" occur.
1 - Unlikely	Event is possible within the next ten years. Event has up to 1 in 10 year's chance of occurring (1/10=10%).

	History of events is less than or equal to 10% likely per year. Event is "Unlikely" but is possible of occurring.

- **Past occurrences** of hazard events.

The past occurrences of natural events are described for identified natural hazards. The information was obtained from the 2013 State of Alaska *All-Hazard Mitigation Plan*, *State Disaster Cost Index*, City records, other state and federal agency reports, newspaper articles, and web searches.

Section 2. Identifying Hazards

The 2013 State of Alaska *All-Hazard Mitigation Plan* does not list the City of Craig on the state hazard matrix or previous occurrences table.

Identification of Natural Hazards Present in Craig

Based on consultation with the Alaska DHS&EM, City of Craig staff and the Planning and Zoning Commission, Craig plans and reports, interviews and newspaper articles, Craig identified the following ***highest risk hazards*** to be profiled.

Table 12. Hazards Identification and Decision to Profile

Hazard	Yes/No	Decision to Profile Hazard
Tsunami	Yes	Identified as a hazard by the City of Craig, DHS&EM, and NOAA.
Ground Failure	Yes	Risk to City critical infrastructure.
Earthquake	Yes	Located near the Queen Charlotte – Fairweather System.
Severe Weather	Yes	Craig is subject to high winds, heavy rainfall/snow.
Flood/Erosion	No	The City does not participate in the National Flood Insurance Program. The City identifies neither flooding nor erosion as a hazard.
Wildland Fire	Yes	The soil conditions and abundant rainfall combine to make a wildland fire hazard unlikely within the city limits of Craig; however, Craig would like this hazard profiled.
Volcano	No	The Alaska Volcano Observatory identifies the closest active volcano to Craig as over 400 miles away.
Snow Avalanche	No	Not identified by the City as a risk within the city limits of Craig.
Climate Change	Yes	New hazard to be added to 2017 MHMP; City of Craig would like this hazard profiled.

Please see Section 7, Hazards not present in Craig, for more information on the hazards not present in the community.

Section 3. Assessing Vulnerability

Overview

The vulnerability overview section is a summary of Craig's vulnerability to the above-identified hazards. The summary includes the types of structures, infrastructures, and critical facilities with the potential to be affected by identified hazards.

The following maps and tables illustrate critical facilities and their vulnerability to natural hazards in Craig.

1. Map 2. Critical Infrastructure

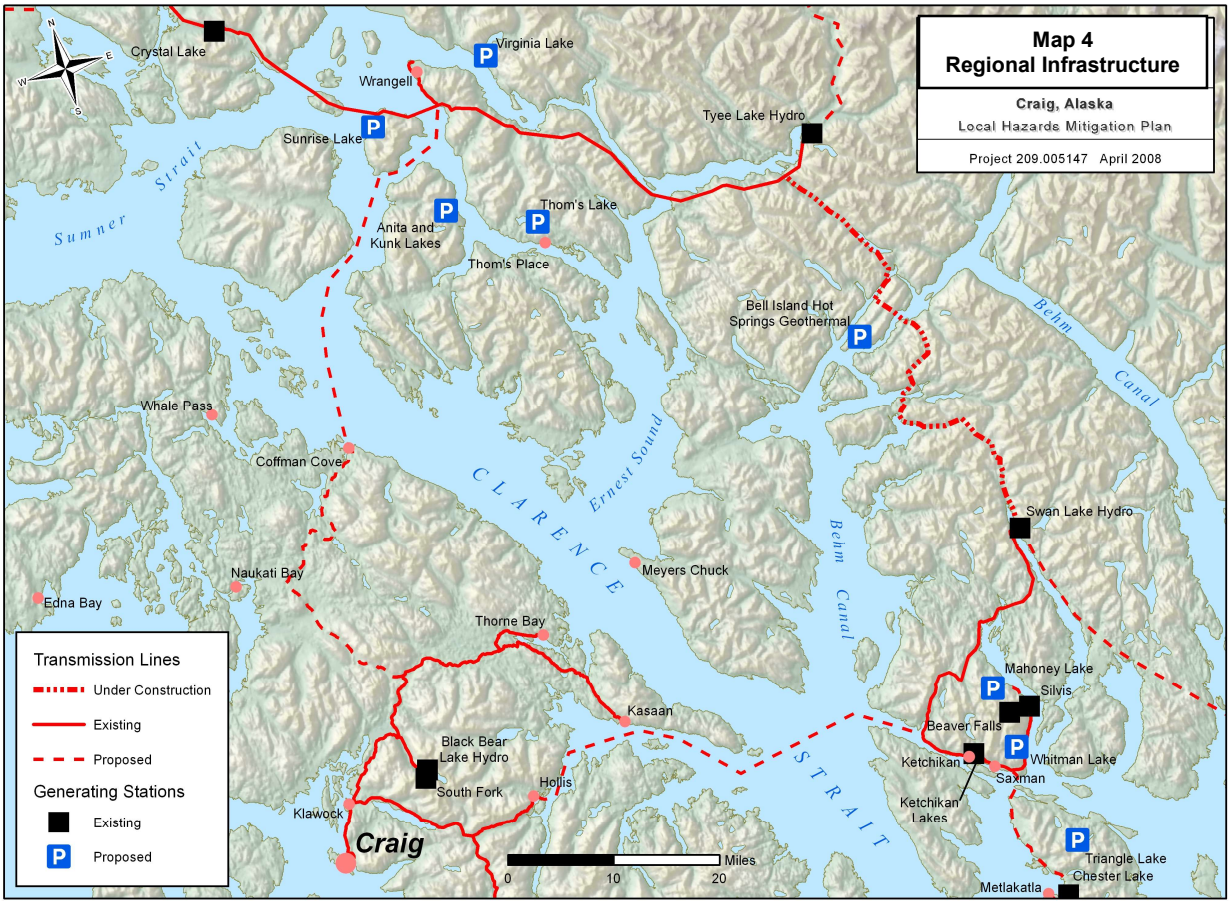
2. Map 3. Regional Infrastructure

3. Table 13. Hazard Assets Matrix

4. Table 14. Potential Dollar Losses of Municipal Structures

Map 2. Critical Infrastructure

Map 3. Regional Infrastructure



Hazard Asset Matrix

The Hazard Asset Matrix below contains the critical infrastructure and their vulnerability to identified natural hazards.

Table 13. Hazard Asset Matrix

Structure/Facility	Earthquake	Tsunami*	Severe Weather	Ground Failure	Wildland Fire
1. Craig Cannery Dock	M	H	M		L
2. Industrial Crane	M	H	M		L
3. Shaan Seet Industrial Dock	M	H	M		L
4. Child Care Center		L	M		L
5. City Hall	M	L	M		L
6. Fire Hall	M	L	M		L
7. Police Station		L	M		L
8. Health Clinic	M	L	M		L
9. Municipal Water Tanks		L	M	H	L
10. Municipal Water Treatment Plant		L	M	H	L
11. AK Power & Telephone Plant	M	L	M		L
12. AK Power Company	M	L	M		L
13. Seaplane Terminal	M	H	M		L
14. North Cove Boat Launch	M	H	M		L
15. U.S. Forest Service	M	M	M		L
16. U.S. Post Office	M	L	M		L
17. Middle School	M	L	M		L
18. Elementary School	M	L	M		L
19. Emergency Helipad	M	M	M		L
20. Craig High School	M	L	M		L
21. AK Power & Telephone	M	-	M		L
22. Tank Farm and Fuel Facilities	M	H	M		L
23. Regional Transmission Lines	M	M	M		L
24. Regional Generating Stations	M	M	M		L
25. Youth Center	M	L	M		L
26. Salmon Hatchery	M	L	M		L
27. Library	M	L	M		L
28. Sewage Plant	M	M	M		L
29. Gym	M	L	M		L
30. Swimming Pool/Fitness	M	L	M		L

Center					
31. Harbormaster Building	M	L	M		L
32. North Cove Harbor	M	H	M		L-M
33. South Cove Harbor	M	H	M		L-M
34. City Dock and Floats	M	H	M		L-M
35. JTB Facilities	M	M	M		L-M

L (Low) = Hazard is present with a low probability of occurrence within the next ten years. Event has up to 1 in 10 year's chance of occurring.
M (Moderate) = Hazard is present with a moderate probability of occurrence within the next three years. Event has up to 1 in 3 year's chance of occurring.
H (High) = Hazard is present with a high probability of occurrence within the calendar year. Event has up to 1 in 1 year's chance of occurring.

*We have obtained draft tsunami inundation maps for Craig. This information will help in determining the vulnerability of structures. The maps are currently in draft form and will be published in 2018.

Vulnerability – Current and Future Structures in Hazard Zones

In April 2009, two significant building projects were completed in Craig: a seafood-processing plant and a new health care clinic. Since federal funds were used for these projects, an engineering review was required to determine whether the structures were located above the Base Flood Elevation (BFE) for a 100-year flood. Craig does not participate in the National Flood Insurance Program and does not have mapped flood zones, however, an engineer reviewed the projects to ensure that the BFE was over a potential 100-year flood, using best available data. Per the last U.S. Army Corps of Engineers Update on June 28, 2017, the BFE is +18 feet mean lower low water.

New public structures in Craig are built to withstand the identified hazards of earthquake, severe weather, and ground failure. New public structures are built above the BFE.

Estimating Potential Dollar Losses

The following table lists the replacement values plus content values of municipal owned buildings. Please see the paragraph below the table for the methodology used to arrive at the potential dollar losses.

Table 14. Potential Dollar Losses of Municipal Structures

Municipal Owned Structures	Year Built/ Size*	Replacement Value
1. City Hall		$725,000
2. Youth Center		$285,000
3. Salmon Hatchery		$46,000
4. Child Care Center		$264,000
5. Float Plane Dock		$550,000

Municipal Owned Structures	Year Built/ Size*	Replacement Value
6. Float Plane Building		$360,000
7. P/PF Shop		$365,000
8. Public Works Shop		$627,778
9. Public Works Shed		$54,000
10. Public Works Equipment Shed		$240,000
11. Police Jail Building		$644,667
12. Fire Department		$265,378
13. Library		$253,000
14. Sewage Plant		$1,000,000
15. Pump House (East Hamilton)		$99,785
16. Sewer Pump (Beach Road)		$83,333
17. Sewer Pump (West Hamilton)		$150,000
18. Sewer Lift (Crab Creek)		$76,667
19. Sewer Lift (High School)		$87,778
20. Water Treatment Plant		$1,402,667
21. Water Tank (PSN Road)		$1,000,000
22. Water Tank (Spruce Street)		$400,000
23. Gym		$848,889
24. Swimming Pool/Fitness Center		$2,208,000
25. Health Clinic		$4,285,000
26. Harbormaster Building		$369,000
27. North Cove Harbor		$1,666,667
28. South Cove Harbor		$875,000
29. City Dock and Floats		$815,556
30. JTB Industrial Park Dock		$771,590
31. JTB Industrial Park Bridge		$65,000
32. JTB Industrial Park Icehouse		$475,000
33. JTB Industrial Park Icehouse Dock		$325,000
34. JTB Industrial Boat Launch		$350,000
Total Potential Dollar Losses		**$22,034,755**

Data Not Available

Source: Craig Finance Department, 2017

The City of Craig Finance Department provided the information for this table, using potential dollar loss figures from the Alaska Municipal League, who is the city insurance provider.

* Data is not available for this column.

Land Use and Development Trends

Development in Craig has occurred at about the right pace to suit the desires of its residents. However, settlement patterns have been influenced by the level of population growth, the physical characteristics of the landscape, the transportation network, and land ownership patterns.

Population growth generates land use demands for housing. In turn, land use demand for commercial and industrial uses can then be linked to corresponding increases in housing growth. These planning principles generally apply to the land use situation in Craig. The 2000 Comprehensive Plan estimated that Craig would grow to a population of 3,269 by the year 2017. This projected population growth was greatly overestimated. Craig's population estimate for 2015 was 1,180. Population growth between 2015 and 2030 is projected to be between 0.2% and 0.5% per five-year period with an estimated population in 2030 of 1,192. This population, in turn, will create a demand for approximately five new dwelling units and approximately 1.2 acres of land to accommodate the new housing. In addition to the additional units required for projected population growth, the 2016 Community Survey indicated that at least 20 new housing units (five acres) were required to meet current, unmet demand.

Where housing is located and neighborhoods are created, small-scale commercial development has followed and will likely follow in the future. As population increases, so does the demand for goods and services resulting in increases in commercial and industrial development. Most developed land in Craig, like other communities in Alaska, is devoted to extensive uses that take up a large area such as streets, single-family residences, and public and semi-public needs. The share of more intensive land uses like land used for multi-family residences, commercial and industrial uses, is relatively small. Increases in the land needs for single-family commonly are accompanied by increased demands for all other uses, especially streets and commercial uses.

Future commercial and industrial development opportunities will need to be supported to replace losses in the public sector with declining state and federal dollars and to support the seasonal fluctuations in the fishing and timber industries. Commercial and industrial development, especially along Craig's waterfront, will continue as the community grows. Existing zoning and land use designations that provide for development of some tidelands, and conservation of others, must be maintained to balance the need for both economic development and recreational and subsistence uses. The waterfront is important to Craig's economy and will require continued maintenance and upgrading in order to keep up with growth.

Craig's downtown is a major asset to the community as it provides convenient shopping opportunities to consumers, nearby residents, and supports a good variety of businesses and provides a focal point for the community. The area is, however, faced with a number of challenges: lack of public parking, unsafe pedestrian circulation, competition from East Craig businesses, and lack of space for growth. Redevelopment or reuse of land in Old Craig will open up developable lands for commercial and

industrial uses. In 2007, the City of Craig purchased the old Ward Cove Cannery property consisting of five acres of upland and five acres of tideland in the old downtown area. The long-term development of this property will include a new harbor with a 10-acre basin and moorage for approximately 145 vessels. The City is working with the U.S. Army Corps of Engineers on this project. Part of the cannery property has been redeveloped to increase available commercial land and to increase parking in the old downtown area. A portion of the remainder of the uplands from the cannery property will be used to support the new harbor but much of the property will be open to other development.

Land ownership has affected settlement patterns in Craig. In combination, Klawock-Heenya Corporation and Shaan-Seet Inc., own approximately more than 90% of the uplands inside the city limits of Craig. As major private landowners, the Klawock-Heenya Corporation and Shaan-Seet, Inc. have a great opportunity to participate in how land is used in the future—future settlement patterns, how, at what rate, and where growth occursThe City has building codes to prevent development in hazard prone areas. The overall velnerability of the City to potential hazards has remained the same since the last plan update.

Chapter 4. Risk Assessment, Hazard Specific Sections

Section 1. Tsunami Hazard

Hazard Description

A tsunami is a series of long waves generated in the ocean by a sudden displacement of a large volume of water. Underwater earthquakes, landslides, volcanic eruptions, meteor impacts, or onshore slope failures can cause this displacement. Most tsunamis originate in the Pacific "Ring of Fire", the area of the Pacific bounded by the eastern coasts of Asia and Australia and the western coasts of North America and South America that is the most active seismic feature on earth.

Tsunami waves can travel at speeds averaging 450 to 600 miles per hour. As a tsunami nears the coastline, its speed diminishes, wavelength decreases, and height increases greatly. Unusual heights have been known to be over 100 feet high. However, waves that are three to five feet high can be very destructive and cause many deaths and injuries.

After a major earthquake or other tsunami-inducing activity occurs, a tsunami could reach the shore within a few minutes. From the source of the tsunami-generating event, waves travel outward in all directions in ripples. As these waves approach coastal areas, the time between successive wave crests varies from 5 to 90 minutes. The first wave is usually not the largest in the series of waves, nor is it the most significant. One coastal community may experience no damaging waves while another may experience destructive deadly waves. Some low-lying areas could experience severe inland inundation of water and deposition of debris of more than 1,000 feet inland.

The Alaska and Aleutian Seismic Zone that threatens Alaska has a predicted occurrence (84% probability between 1988 to 2008) based on seismic data collected during those years that an earthquake with magnitude greater than 7.4 may occur in Alaska. If an earthquake of this magnitude occurs, Alaska's coastlines can be expected to flood within 15 minutes. (WCATWC)

Landslide-generated tsunami

Craig is at greatest risk from submarine and subaerial landslides, which can generate large tsunamis. Subaerial landslides have more kinetic energy associated with them so they trigger larger tsunamis. An earthquake usually, but not always, triggers this type of landslide, and they are usually confined to the bay or lake of origin. One earthquake can trigger multiple landslides and landslide generated tsunamis. Low tide is a factor for submarine landslides because low tide leaves part of the water-saturated sediments exposed without the support of the water.

Other Types of Tsunami

Tele-Tsunami

Tele-tsunami is the term for a tsunami observed at places 1,000 kilometers from their source. In many cases, tele-tsunamis can allow for sufficient warning time and evacuation.

No part of Alaska is expected to have significant damage due to a tele-tsunami. Only one tele-tsunami has caused damage in Alaska; the 1960 Chilean tsunami. Damage occurred to pilings at MacLeod Harbor, Montague Island on Cape Pole, Kosciusko Island where a log boom broke free.

Seismically generated local tsunami

Most seismically generated local tsunamis have occurred along the Aleutian Arc. Other locations include the back arc area in the Bering Sea and the eastern boundary of the Aleutian Arc plate. They generally reach land 20 to 45 minutes after starting.

Seiches

A seiche is a wave that oscillates in partially or totally enclosed bodies of water. They can last from a few minutes to a few hours because of an earthquake, underwater landslide, atmospheric disturbance, or avalanche. The resulting effect is similar to bathtub water sloshing repeatedly from side to side. The reverberating water continually causes damage until the activity subsides. The factors for effective warning are similar to a local tsunami. The onset of the first wave can occur in a few minutes, giving virtually no time for warning.

Characteristics of Tsunamis

Debris: As the tsunami wave comes ashore, it brings with it debris from the ocean, including man-made debris like boats, and as it strikes the shore, creates more on-shore debris. Debris can damage or destroy structures on land.

Distance from shore: Tsunamis can be both local and distant. Local tsunamis give residents only a few minutes to seek safety and cause more devastation. Distant tsunamis originating in places like Chile, Japan, Russia, or other parts of Alaska can also cause damage.

High tide: If a tsunami occurs during high tide, the water height will be greater and cause greater inland inundation, especially along flood control and other channels.

Outflow: Outflow following inundation creates strong currents, which rip at structures and pound them with debris, and erode beaches and coastal structures.

Water displacement: When a large mass of earth on the ocean bottom impulsively sinks or uplifts, the column of water directly above it is displaced—forming the tsunami wave. The rate of displacement, motion of the ocean floor at the earthquake epicenter, amount of displacement of the rupture zone, and the depth of water above the rupture zone all contribute to the intensity of the tsunami.

Wave runup: Runup is the height that the wave extends up to on steep shorelines, measured above a reference level (the normal height of the sea, corrected to the state of the tide at the time of wave arrival).

Wave strength: Even small wave heights can cause strong, deadly surges. Waist-high surges can cause strong currents that float cars, small structures, and other debris.

Location

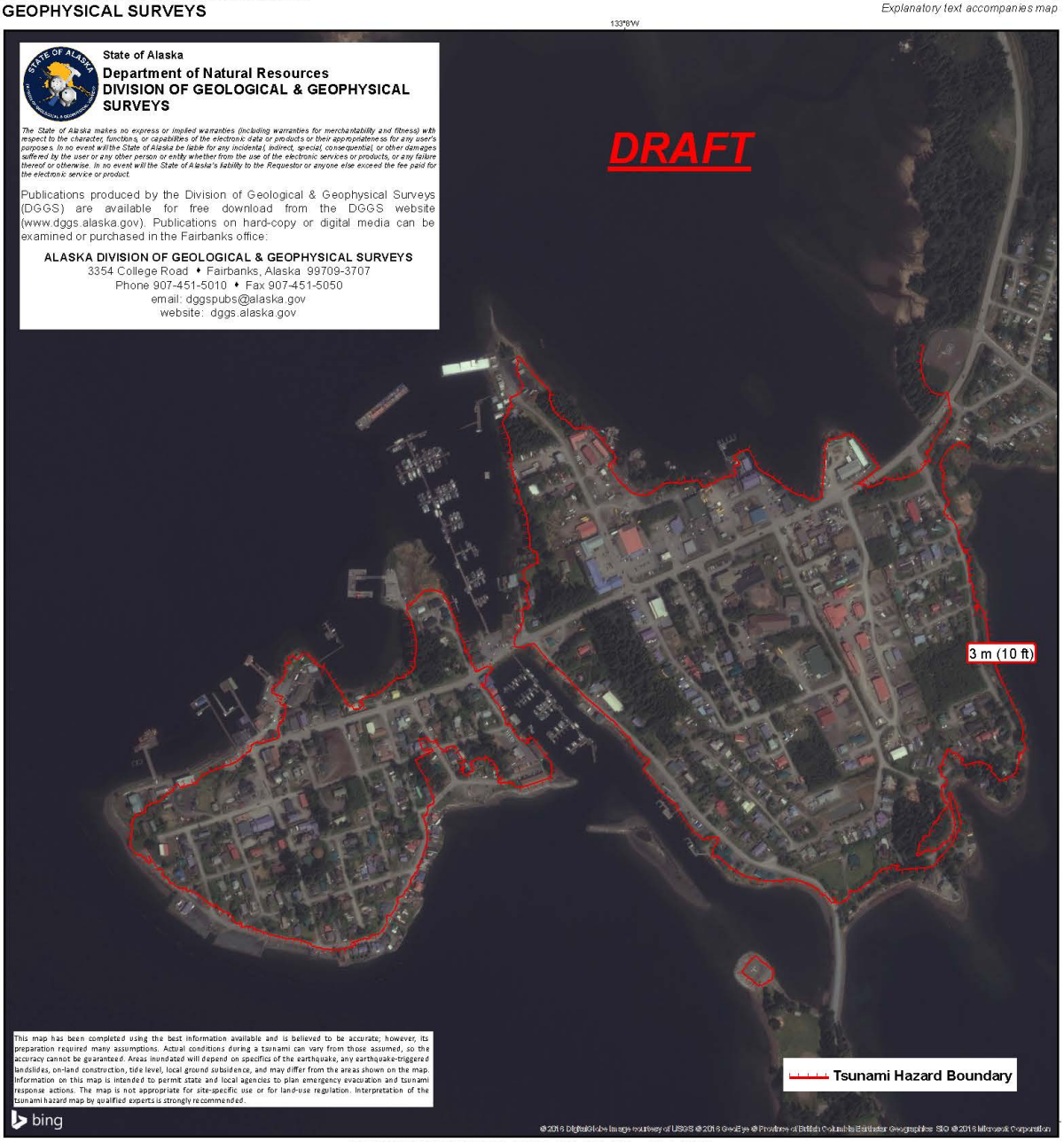
The State of Alaska DHS&EM and other agencies are engaged in a tsunami inundation mapping initiative for tsunami hazard communities around the state. These site-specific tsunami inundation maps take in to account differences in geographical features that affect tsunami run up. These maps can be used to more accurately predict the number of people and development at risk, as well as assist with land use and emergency response planning.

Alaska DHS&EM, with input from an interagency committee, has established a statewide priority list for tsunami inundation mapping. A draft tsunami inundation map for Craig is available and is shown on the following page and will be published in 2018.

Map 4. Tsunami Inundation

REPORT OF INVESTIGATIONS 2016-XX
Suleimani and others, DRAFT
SHEET 2 OF 3
Explanatory text accompanies map

ALASKA DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

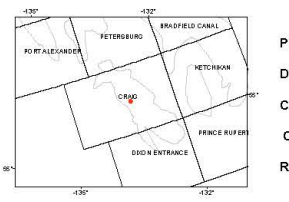


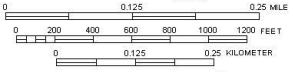
TSUNAMI HAZARD MAP OF CRAIG, ALASKA

Regional tsunami hazard assessment for the communities of Port Alexander, Craig and Ketchikan in Southeast Alaska

by E.N. Suleimani[1], D.J. Nicolsky[1], and R.D. Koehler[2]

2016





Projection:
Alaska State Plane Zone 1 (Feet)
Datum:
North American Datum of 1983
Cartography by:
A.E. Macpherson [1] (2016)
Cartographic review by:
xxxxxx[2] (2016)
Reviewed by:
(2016)

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[2] Alaska Division of Geological & Geophysical Surveys, 3354 College Rd, Fairbanks, Alaska 99709-3707; now at Nevada Bureau of Mines and Geology, Mackay School of Earth Science and Engineering, University of Nevada, Reno, 1664 North Virginia Street, MS 178, Reno, NV 89557

Extent

A tsunami in Craig could be of **critical** extent. Craig has been designated by DHS&EM and DGGS as having a moderate probability for a Pacific-wide tsunami and a high probability for a locally-generated tsunami. Craig is surrounded by Klawock Inlet, Bucareli Bay, and Crab Bay. Any of these water bodies adjacent to Craig could be a potential source of a locally-generated tsunami.

Table 10 defines a *critical* extent as an event causing one of the following: injuries and/or illnesses that result in permanent disability, complete shutdown of critical facilities for at least 2 weeks, or more than 25% of property severely damaged.

The following factors will affect the severity of a tsunami:

Coastline configuration: Tsunamis impact long, low-lying stretches of linear coastlines, usually extending inland for relatively short distances. Concave shorelines, bays, sounds, inlets, rivers, streams, offshore canyons, and flood control channels may create effects that result in greater damage. Offshore canyons can focus tsunami wave energy and islands can filter the energy. The orientation of the coastline determines whether the waves strike head-on or are refracted from other parts of the coastline. Tsunami waves entering flood control channels could reach a mile or more inland, especially if they enter at high tide.

Coral reefs: Reefs surrounding islands in the western North Pacific and the South Pacific generally cause waves to break, providing some protection to the islands.

Earthquake characteristics: Several characteristics of the earthquake that generates the tsunami contribute to the intensity of the tsunami, including the area and shape of the rupture zone.

Fault movement: Strike-slip movements that occur under the ocean create little or no tsunami hazard. However, vertical movements along a fault on the seafloor displace water and create a tsunami hazard.

Magnitude and depth: Earthquakes with greater magnitude cause more intense tsunamis. Shallow-focus earthquakes also have greater capacity to cause tsunamis.

Human activity: With increased coastal development, property damage increases, multiplying the amount of debris available to damage or destroy other structures.

Impact

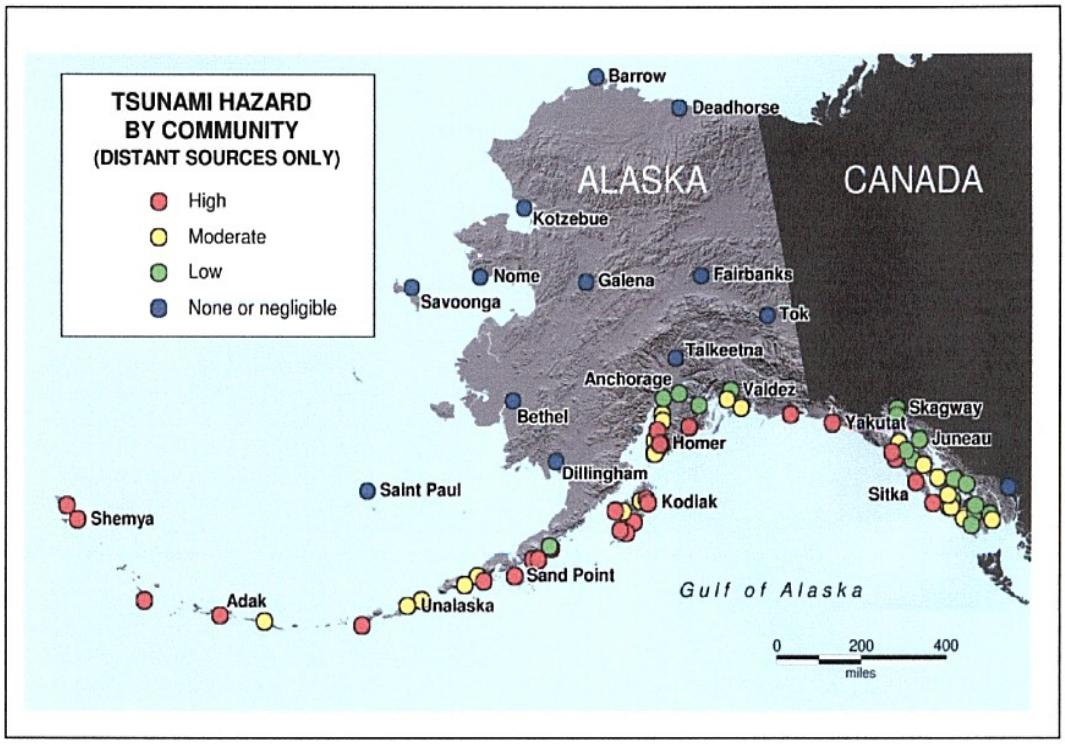
A tsunami event in Craig could damage the structures and infrastructure that are located along the shoreline in the community. The facilities located within the tsunami inundation zone that could potentially be affected are docks, cannery crane, and fuel tanks associated witht the fishing industry and would

negatively impact Craig's economy and employment if damaged. The waterfront is essential to Craig's economy and at most risk to a sudden event high tide.

Probability

Craig has been designated by DHS&EM and DGGS as having a moderate potential for a Pacific-wide tsunami and a high potential for a locally-generated tsunami. It is **possible** that a Pacific-wide tsunami event will occur within the next three years and **is possible** that a locally-generated tsunami occur in the next year.

A possible probability is defined as the hazard being present with a probability of occurrence within the next five years. The event has up to 1 in 5 year's chance of occurring. History of events is greater than 10% but less than or equal to 20%.



Source: Alaska All-Hazards Risk Mitigation Plan, 2013

Figure 1. Tsunami Hazard Probability by Community

A possible probability is defined as the hazard being present with a probability of occurrence within the next five years. Alaska has the greatest earthquake and tsunami potential in the entire United States. It is a very seismically active region where the Pacific plate is subducting under the North American plate. This subduction zone, the Alaska-Aleutian megathrust zone, creates high tsunami hazards for the adjacent coastal areas. The coseismic crustal movements that characterize this area have a high potential for producing vertical sea floor displacements, which are highly tsunamigenic (AEIC).

Previous Occurrences

Historic tsunamis that were generated by earthquakes in the Alaska-Aleutian subduction zone have resulted in widespread damage and loss of life along the Alaskan Pacific coast and other exposed locations around the Pacific Ocean. Seismic water waves originating in Alaska can travel across the Pacific and destroy coastal towns hours after they are generated. However, they are considered a near-field hazard for Alaska, and can reach Alaskan coastal communities within minutes after an earthquake. Therefore, saving lives and property depends on how well a community is prepared, which makes it essential to model the potential flooding area in case of a local or distant tsunami. (AEIC)

There has been at least one confirmed volcanically triggered tsunami in Alaska. In 1883, debris from the Saint Augustine volcano triggered a tsunami that inundated Port Graham with waves 30 feet high.

On January 23, 2018, a 7.9 magnitude earthquake occurred near Kodiak, and a tsunami warning was issued. However, a tsunami did not occur in Craig.

Research of the plans and reports cited in this document did not produce any record of damage from a tsunami in Craig. However, the reports have listed Craig as having a moderate risk of a critical event occurring.

Tsunami Mitigation Goals and Projects

Goal 1. Increase Public Education and Safety regarding potential Tsunami Hazard in Craig.

2017 Update: This goal is ingrained within the City's emergency preparedness culture.

Goal 2. Develop accurate inundation maps for the Craig coastline

2017 Update: In progress; report will be published in 2018.

Goal 3. Update Craig Emergency Response Plan, as needed.

2017 Update: In progress; report will be published in 2018.

Project T-1 Obtain tsunami inundation maps for Craig. Without these maps, Craig must rely on historical or estimated information for land use and evacuation route planning. Inundation maps will provide more accurate and precise information. (Goals 1, 2)

2017 Update: Maps will be available in 2018.

Project T-2 Update Craig Emergency Response Plan as needed. (Goals 1, 3)

2017 Update: Craig Emergency Response Plan is currently being updated.

Project T-3 Seek TsunamiReady Certification**.** This certification includes education, warning systems, evacuation planning, and signage funded through DHS&EM and NOAA. (Goal 1)

2017 Update: City of Craig has obtained the TsunamiReady Certification.

Project T-4 Evaluate tsunami warning and alerting systems including sirens, NOAA Weather Radios, and Marine band. (Goal 1)

2017 Update: The City has installed two sirens. Schools have radios; emergency advisories are received via various social media outlets and emergency notification systems.

Project T-5 Develop tsunami evacuation maps and plans. (Goals 1, 3)

2017 Update: Tsunami maps will be completed in 2018, after which the City of Craig can incorporate those studies into their evacuation maps and plans.

Project T-6 Emergency Operation Plan Exercises. Use the Emergency Response Plan in exercises regarding natural hazards including tsunami danger. (Goals 1, 3)

2017 Update: This project has been implemented and is ongoing.

Section 2. Ground Failure Hazard

Ground failure, or landslides, is a problem throughout Alaska. Ground failure hazards exist to some degree in all areas of the state.

Hazard Description

Landslides are described as downward movement of a slope and materials under the force of gravity. The term landslide includes a wide range of ground movement, such as rock falls, deep failure of slopes, and shallow debris flows. Landslides are influenced by human activity (mining and construction of buildings, railroads, and highways) and natural factors (geology, precipitation, and topography). They are common all over the United States.

Landslides occur when masses of rock, earth, or debris move down a slope. Therefore, gravity acting on an overly steep slope is the primary cause of a landslide. They are activated by storms, fires, and by human modifications to the land. New landslides occur because of rainstorms, earthquakes, volcanic eruptions, and various human activities.

Mudflows (or debris flows) are flows of rock, earth, and other debris saturated with water. They develop when water rapidly accumulates in the ground, such as during heavy rainfall or rapid snowmelt, changing the earth into a flowing river of mud or "slurry". Slurry can flow rapidly down slopes or through channels and can strike with little or no warning at avalanche speeds. Slurry can travel several miles from its source, growing in size as it picks up trees, cars, and other materials along the way.

Other types of landslides include: rock slides, slumps, mudslides, and earthflows. All of these differ in terms of content and flow.

Landslides usually affect infrastructure such as roads and bridges, but they can also affect individual buildings and businesses.

The four types of landslides are classified according to the type of material and movement involved.

Slides
Characterized by shear displacement along one or several surfaces. The two general types of slides are rotational and translation. During a rotational slide, the ruptured surface is concave upward and the mass rotates along the concave shear surface. Rotational slides, also called slumps, can occur in bedrock, debris, or earth. In a translational slide, the rupture surface is a smooth or gently rolling slope. If an intact mass slides down a slope on a distinct shear, it is called a block slide. If rock fragments or debris slides down a slope on a distinct shear plane, it is called a rockslide or debris slide.

Flows

Fast moving soils, rocks, and organic materials mix with air and water going down a hill. They differ from slides by having higher water content and the distribution of velocities that resembles a viscous fluid. Common to Alaska are flows in bedrock, also called sackung, gravitational sagging, or ridgetop spreading. Sackung may occur slowly or may develop in response to seismic shaking.

Flows in soil or debris also include soil creep, solifluction, block streams, etc.

Creep is an imperceptibly slow, downward movement of slope-forming soil or rock due to gravity.

Solifluction is a slow, down-slope flow of water-saturated soil occurring in areas with perennially frozen ground, because the frozen ground traps snow and ice melt within the surface layer making it more fluid. In such areas, this process is properly called gelifluction. Spring rain and meltwater saturate the soil because it cannot percolate in the frozen layers below. Surface layers, during the short summers, only thaw to a small depth, creating a very unstable situation at the interface between the frozen and unfrozen layers. The result is waterlogged beds on top flow slowly down slope moving several inches per day.

Block streams are slow moving tongues of rocky debris on steep slopes, which are often fed by talus cones.

Lateral Spreads

Material can be laterally displaced or its surface materials spread apart. They often occur on gentle slops that range between 0.3 and 3 degrees and occur commonly in fine-grained soils. Slopes are especially vulnerable if the soil has been remolded or distributed by construction, grading, or similar activities. They can be produced through liquefaction, which can occur spontaneously because of changes in pore-water pressure or as the result of vibrations.

Falls and Topples

A fall is when rock or other material breaks free from a cliff or slope and moves by free fall, bouncing or rolling. Falls typically occur on steep slopes with a slope angle between 45 to 90 degrees—making fall movement very fast. Topples are a mass of rocks or soil rotating forward from a slope at a point that is below the mass' center of gravity. The movement is tilting without collapse, but if the mass pivots far enough, a fall may result.

Port St. Nicholas Area, 2003 (Templin)

Geology, precipitation, topography, and cut and fill construction practices all influence landslide activity. They often are the result of seismic activity, flooding, volcanic activity, heavy precipitation, construction work, or coastal storms. Landslides can also trigger secondary hazards, such as tsunamis and flooding.

Location

Shallow soil and steep timbered slopes in the residential area of Port St. Nicholas make landslides in this area a potential hazard. Dry periods followed by sustained heavy rainfall loosen the shallow soil and cause slides. This event has been seen throughout Prince of Wales Island. In 2003, there was a series of significant slides in this area. Although there was no loss of property or life, the increasing density of residential development in this area continues to increase the hazard of landslides having a direct effect on people and structures.

In the 2003 slides, the roads and utilities were cut off from private and public properties, including the municipal water treatment plant, for several days while debris was removed and utility lines were repaired. (Draft ERP, 2004)

Port St. Nicholas is outside the city limits of Craig. However, as noted in the Draft *Emergency Response Plan,* damage in this area leads to interruption of the municipal water supply and access into the Port St. Nicholas Subdivision.

Landslide Areas, Port St. Nicholas, 2003 (Templin)

Extent

As defined using the criteria in Table 10, the extent of damage from a landslide in Craig could be ***critical***.

Table 10 defines a *critical* extent as an event causing one of the following: injuries and/or illnesses that result in permanent disability, complete shutdown of critical facilities for at least two weeks, or more than 25% of property severely damaged.

Impact

As noted above, ground failure that occurs in the Port St. Nicholas area could close off access to residential development and impact the municipal water treatment plant and tanks.

Probability

Due to the voluminous rainfall and the soil types in Craig, the probability of a landslide in Craig is ***highly likely***. The criteria illustrated in Table 11 defines a highly likely probability as the hazard is present with a high probability of occurring within the calendar year. Event has up to 1 in 1 year's probability of occurring.

Previous Occurrences

The St. Port Nicholas area has had several landslides in the past. There is no data or written evidence as to the dollar extent of damages. Per Craig residents, 2004 may have been the last landslide occurrence in Craig.

Ground Failure Mitigation Goals and Projects

Goal 1. Reduce Craig's vulnerability to landslide hazards in terms of threat to life and property.

Goal 2. Provide the community with comprehensive information regarding ground failure hazards and unstable soils throughout Craig's developed area, including areas that will be developed in the future.

Goal 3. Increase public awareness of ground failure dangers and hazard zones.

Project GF-1 Continue to maintain the water treatment plant back-up generators, and replace as needed, to supply power in case of a landslide that interrupts power to the plant. (Goals 1, 2, 3)

2017 Update: Plant back-up generators were installed in 2005/2006 and are maintained by the City of Craig. This project is also tied to earthquake and high wind (severe weather) projects.

Project GF-2 Continue to educate the public about avalanche and landslide hazards. Information can be disseminated to the public through the City website, press releases, media ads, and other methods. (Goals 1, 2, 3)

2017 Update: The City has not implemented due to lack of funding.

Project GF-3 Conduct studies of unstable soils in landslide prone areas, specifically those areas that have not yet been studied and might present additional dangers in the form of underwater ground failure, or landslides that may cause a tsunami. (Goals 1, 2, 3)

2017 Update: The study has not been completed.

Section 3. Earthquake Hazard

Approximately 75% of Alaska's detected earthquakes occur in the Alaska Peninsula, Aleutian, Cook Inlet, and Anchorage areas. About 15% occur in Southeast Alaska, and the remaining 10% occur in the Interior. The greatest earthquake in North American history occurred in the Alaska-Aleutian seismic zone—a magnitude 9.2 lasting between four and five minutes and felt over a 7,000,000-square mile area. It caused a significant amount of ground deformation as well as triggering landslides and tsunamis resulting in major damage throughout the region. The megathrust zone where the North Pacific Plate plunges beneath the North American Plate still has the potential to generate earthquakes up to magnitude 9 (2013 State of Alaska *All-Hazard Mitigation Plan*).

Southeast Alaska also has had earthquakes from the Queen Charlotte-Fairweather fault including a magnitude 8.1 earthquake in 1949 and the magnitude 7.9 event in 1958 that triggered the giant landslide-generated wave in Lituya Bay. Areas at greatest risk from earthquakes along this fault zone are communities along the outer coast of Southeast Alaska.

Southeast Alaska sits on the boundary of two major tectonic plates: the Pacific plate in the West and the North American Plate in the East. The collision of these two plates has caused the uplift of the Coastal Mountain Range that runs the length of Southeast Alaska.

Hazard Description

Approximately 11% of the world's earthquakes occur in Alaska, making it one of the most seismically active regions in the world. Three of the 10 largest quakes in the world since 1900 have occurred here. Earthquakes of magnitude 7 or greater occur in Alaska on average of about once a year; magnitude 8 earthquakes average about 14 years between events.

Most large earthquakes are caused by a sudden release of accumulated stresses between crustal plates that move against each other on the earth's surface. Some earthquakes occur along faults that lie within these plates. The dangers associated with earthquakes include ground shaking, surface faulting, ground failures, snow avalanches, seiches and tsunamis. The extent of damage is dependent on the magnitude of the earthquake, the geology of the area, distance from the epicenter, and structure design and construction. A main goal of an earthquake hazard reduction program is to preserve lives through economical rehabilitation of existing structures and constructing safe new structures.

Ground shaking is due to the three main classes of seismic waves generated by an earthquake. Primary waves are the first ones felt, often as a sharp jolt. Shear or secondary waves are slower and usually have a side-to-side movement. They can be very damaging because structures are more vulnerable to horizontal than vertical motion. Surface waves are the slowest, although they can carry the bulk of the energy

in a large earthquake. The damage to buildings depends on how the specific characteristics of each incoming wave interact with each building's height, shape, and construction materials.

Earthquakes are usually measured in terms of their magnitude and intensity. Magnitude is related to the amount of energy released during an event while intensity refers to the effects on people and structures at a particular place. Earthquake magnitude is usually reported according to the standard Richter scale for small to moderate earthquakes.

Strike-slip faults occur when each side of the fault moves horizontally. Normal faults have one side dropping down relative to the other side. Thrust (reverse) faults have one side moving up and over the fault relative to the other side.

Earthquake-induced ground failure is often the result of liquefaction, which occurs when soil (usually sand and coarse silt with high water content) loses strength because of the shaking and acts like a viscous fluid.

Liquefaction causes three types of ground failures: lateral spreads, flow failures, and loss of bearing strength. In the 1964 earthquake, over 200 bridges were destroyed or damaged due to lateral spreads. Flow failures damaged the port facilities in Seward, Valdez, and Whittier.

Similar ground failures can result from loss of strength in saturated clay soils, as occurred in several major landslides that were responsible for most of the earthquake damage in Anchorage in 1964. Other types of earthquake-induced ground failures include slumps and debris slides on steep slopes.

The following figure was obtained from http://earthquake.alaska.edu/.

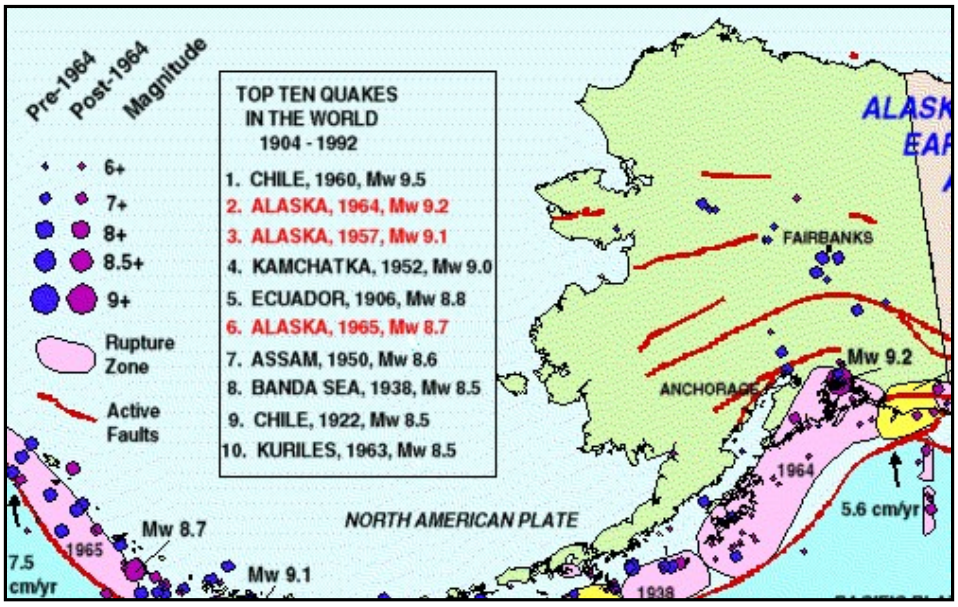


Figure 2. Earthquake Active Faults

Location

An earthquake hazard could potentially impact any part of Craig. Earthquake damage would be area-wide with potential damage to critical infrastructure up to and including the complete abandonment of key facilities. Limited building damage assessors are available in Craig to determine structural integrity following earthquake damage. Priority would be given to critical infrastructure to include: public safety facilities, health care facilities, shelters and potential shelters, and public utilities.

Southeastern Alaska

Southeastern Alaska, also known as "the panhandle", includes the area of the state from Prince of Wales Island to Icy Bay. In 1904, the state's first seismic monitoring station was installed in southeastern Alaska at the Astronomical Observatory in Sitka. It was the only seismic station monitoring earthquakes in Alaska until 1935 when a second station was installed near Fairbanks. The Sitka station continues to operate today as part of a statewide network of seismograph stations (AEIC).

Major faults in the area include the Queen Charlotte fault, the Fairweather fault and the Chatham Strait fault, described in further detail below. Minor faults in the area include the Clarence Strait fault and the Peril Strait fault. The eastern end of the Denali and Transition faults (main discussions in Interior and Southcentral seismicity sections) are also found in southeastern Alaska (AEIC).

The strongest shaking will occur in muskeg, man-made fills, modern alluvial and delta deposits and volcanic ash deposits. The saturated muskeg and reworked volcanic ash would be subject to possible liquefaction during severe earthquake-caused ground shaking, and are thus unreliable as stable foundation materials.

An earthquake could also cause other disastrous events to potentially occur at the same time, such as tsunamis, fires, release of hazardous materials, and energy shortages.

Queen Charlotte - Fairweather fault system

The Queen Charlotte and Fairweather faults are part of a long fault system that marks the eastern boundary of the Pacific plate and the western boundary of the North American plate. The Pacific plate moves in a northwestward direction relative to the North American plate, creating a transform boundary—the name given to the interface between two plates moving horizontally in opposite directions. The fault associated with a transform boundary is a strike-slip fault. The Queen Charlotte and Fairweather faults are very similar to some of the most well-known strike-slip faults in the world, the faults associated with California's San Andreas Fault system.

At the northern end of the Queen Charlotte-Fairweather fault system is the Fairweather fault, a strike-slip fault with right lateral movement. The Fairweather fault is visible on land for about 280 kilometers from Cross Sound northwestward to its junction with the

St. Elias fault near Yakutat Bay. Seismic exploration methods have projected the Fairweather fault just offshore of the Alexander Archipelago from Cross Sound to the mouth of Chatham Strait. At this point, the fault is believed to connect with the Queen Charlotte fault. The Queen Charlotte fault, which extends southeastward from Chatham Strait past the Queen Charlotte Islands, is also a strike-slip fault with right lateral movement (AEIC).

Chatham Strait fault

The Chatham Strait fault is the second largest right lateral strike-slip fault in southeastern Alaska. Starting near Haines, the fault follows Lynn Canal south into Chatham Strait and is thought to be truncated by the Fairweather-Queen Charlotte fault system west of Iphigenia Bay (AEIC).

Extent

The extent of an earthquake in Craig could be ***critical***. Table 10 uses the following criteria to determine the extent of possible damage: injuries and/or illnesses result in permanent disability, complete shutdown of critical facilities for at least two weeks, or more than 25% of property is severely damaged.

Intensity is a subjective measure of the strength of the shaking experienced in an earthquake. Intensity is based on the observed effects of ground shaking on people, buildings, and natural features. It varies from place to place within the disturbed region depending on the location of the observer with respect to the earthquake epicenter.

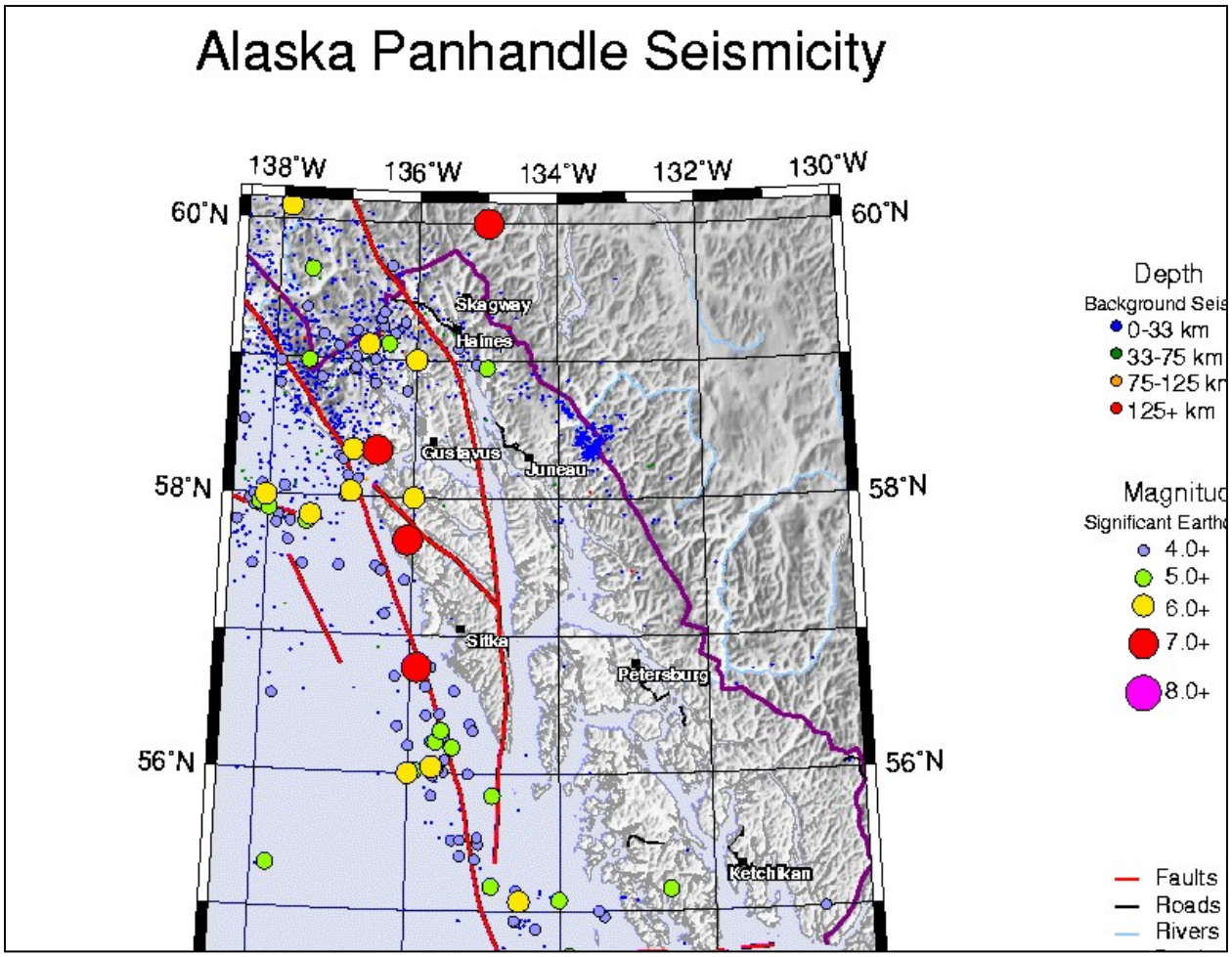
The intensity reported at different points generally decreases away from the earthquake epicenter. Local geologic conditions strongly influence the intensity of an earthquake; commonly, sites on soft ground or alluvium have intensities two to three units higher than sites on bedrock.

The Richter scale expresses magnitude as a decimal number. A 5.0 earthquake is a moderate event, 6.0 characterizes a strong event, 7.0 is a major earthquake and a great earthquake exceeds 8.0. The scale is logarithmic and open-ended (2013 State of Alaska *All-Hazard Mitigation Plan*).

A magnitude of 2.0 or less is called a microearthquake, which cannot even be felt by people and is recorded only on local seismographs. Events with magnitudes of about 4.5 or greater are strong enough to be recorded by seismographs all over the world. However, the magnitude would have to be higher than 5.0 to be considered a moderate earthquake, a large earthquake would be rated as magnitude 6.0 and major as 7.0. Great earthquakes (which occur once a year on average) have magnitudes of 8.0 or higher (British Columbia 1700, Chile 1960, Alaska 1964). The Richter Scale has no upper limit, but for the study of massive earthquakes, the moment magnitude scale is used. The modified Mercalli Intensity Scale is used to describe earthquake effects on structures.

The extent of a major earthquake in Craig could be critical. Craig is located near the Fairweather fault, which extends from south of Queen Charlotte Islands to Yakutat. The fault moves right-laterally approximately 2.25 inches per year. A study by the U.S. Geological Survey predicts a magnitude 8 or greater earthquake will occur near Craig in the future. This could be especially devastating because ground shaking can cause liquefaction of Craig's thixotropic soils.

The following figure is from AEIC. It illustrates that a major earthquake has occurred near Craig in the past and shows that a fault is located near the Craig area.



Source: http://www.aeic.alaska.edu/html_docs/information_releases.html

Figure 3. AEIC Alaska Panhandle Seismicity

Impact

A high intensity or high magnitude earthquake in Craig, because of the area-wide risk, could impact any part of the community. Interruption of critical services and damage to facilities could potentially impact any part of Craig.

Probability

Craig has a **likely** probability of earthquake hazard. Table 11 lists the following criteria for a likely probability: hazard is present with a moderate probability of occurrence within the next three years, event has up to 1 in 3 year's chance of occurring. A study by the USGS predicts a magnitude 8 or greater earthquake will occur in Southeast Alaska in the future.

While it is not possible to predict an earthquake, the USGS has developed Earthquake Probability Maps that use the most recent earthquake rate and probability models. These models are derived from earthquake rate, location, and magnitude data from the USGS National Seismic Hazard Mapping Project.

Using the USGS map shown in Figure 4, the City of Craig has a 2% probability of ground acceleration of 0.30-0.40g occurring in 50 years.

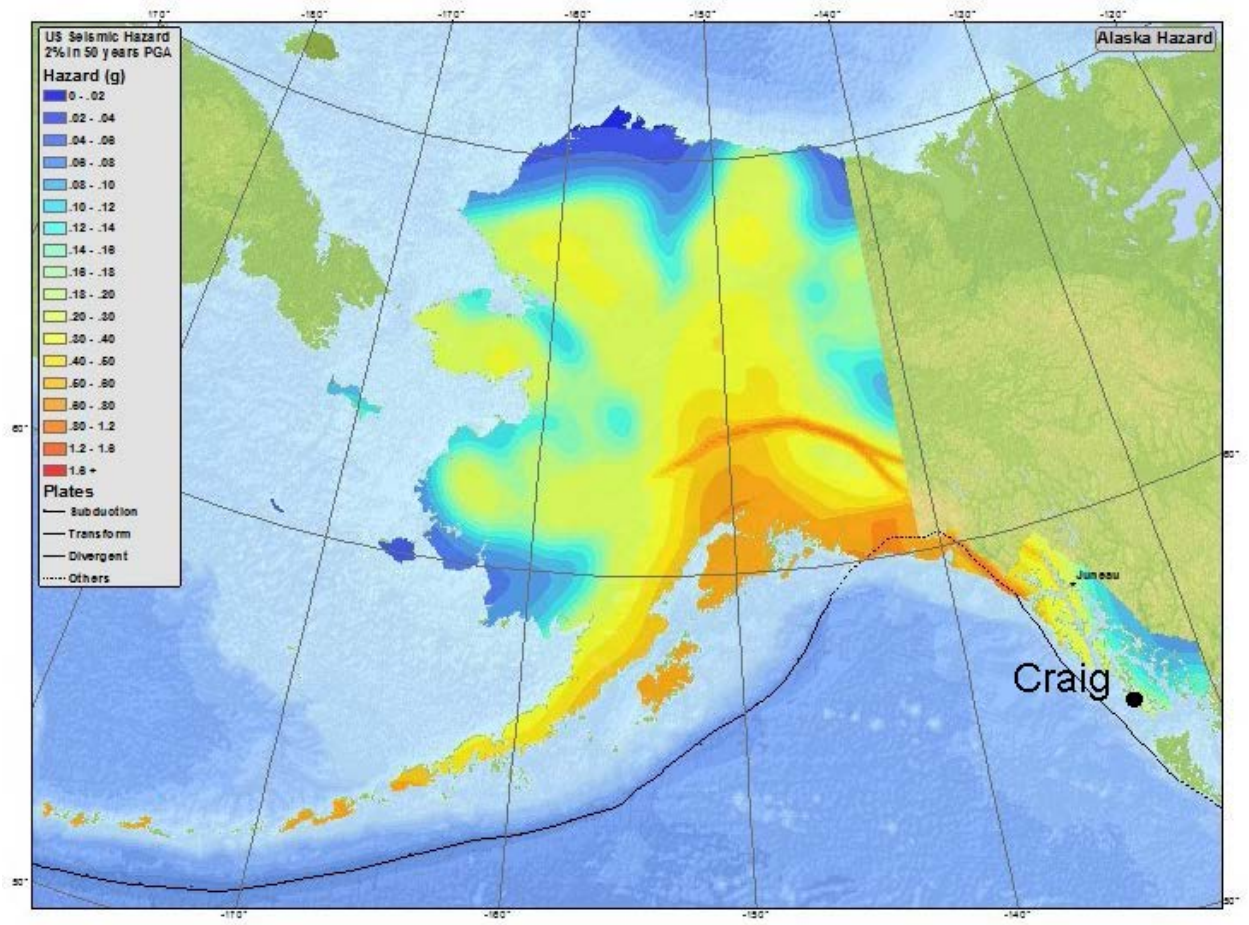


Figure 4. Statewide Earthquake Probability

Previous Occurrences

The latest major earthquake (M 7.5) near Craig occurred at 11:58 pm AKST on Friday, January 4, 2013 (January 5, 8:58 UTC) in southeastern Alaska. It was located 113 km (71 miles) WSW of Craig and 114 km (71 miles) south of Port Alexander. The Alaska Earthquake Center reported about 350 aftershocks (open circles) through the end of 2013. Due to off-shore location of these earthquakes and sparse seismic station averages, reliable locations can only be obtained for magnitude 2.5 and greater events. Twenty aftershocks had magnitudes of 4.0 or greater. The largest aftershock, magnitude 5.8, occurred on January 31 at 0:53 am AKST (9:53 UTC). The nearest seismic stations are located in Craig and Sitka.

This earthquake was felt widely in southeast Alaska and British Columbia, and as far as Seattle, Washington. Maximum intensity of shaking, V - moderate, was reported in Klawock, Hydaburg, Hyder, and Craig. Several larger aftershocks were also felt. No damage was reported; however, some residents reported items falling off the shelves.

This was the largest event to occur in the region since a magnitude 7.8 earthquake that occurred on October 28, 2012, located at Haida Gwaii, Canada west of the Queen Charlotte Archipelago and created tsunami warnings for Craig. Two aftershocks occurred within 48 hours at magnitudes 6.2 and 6.3. The largest recorded earthquake that had previously ruptured this section of the fault was the magnitude 8.1 on August 22, 1949. A magnitude 7.6 earthquake occurred on July 30, 1972. The January 5 event was located near the northern end of the 1949 rupture and south of the 1972 event, i.e. it most likely occurred in the remaining rupture gap.

The elastic-wave radiation pattern of the M 7.5 event is consistent with the earthquake occurring as the result of right-lateral strike-slip faulting on a northwest-striking fault - as expected from the tectonic situation of the earthquake.

Four major earthquakes have been linked to the Queen Charlotte-Fairweather fault system in the last century. In 1927, a magnitude 7.1 (Ms - surface wave magnitude) earthquake occurred in the northern part of Chichagof Island; in 1949, a magnitude 8.1 (Mw - moment magnitude) earthquake occurred along the Queen Charlotte fault near the Queen Charlotte Islands; in 1958, movement along the Fairweather fault near Lituya Bay created a magnitude 7.9 (Ms) earthquake; and in 1972, a magnitude 7.4 (Ms) earthquake occurred near Craig. The 1958 Lituya Bay earthquake, which was felt as far away as Seattle, Washington was caused a large rockslide, which deposited the contents of an entire mountainside into the bay. The gigantic wave that resulted from this rockslide scoured the shores of the bay down to bedrock and uprooted trees as high as 540 meters above sea level. Fishing boats were carried on the wave at a reported height of at least 30 meters over the spit at the entrance to the bay and tossed into the open ocean.

Geologic evidence shows that the Chatham Strait fault was active as recently as the mid-Tertiary period and had total right lateral displacement up to 150 km.

Although a 1987 magnitude 5.3 (mb - body wave magnitude) earthquake was located near the Chatham Strait fault, very few earthquakes in the area appear to have been directly related to the fault. (AEIC)

A major earthquake of 6.8 magnitude near Craig occurred at 1:49 a.m. Alaska Daylight Time (ADT) (9:49 UTC) on Monday, June 28, 2004. The strong earthquake occurred in the Queen Charlotte Islands region near the Alaskan/Canadian border. This earthquake was situated 112 kilometers (70 miles) southwest of Craig, the nearest population center. It was felt strongly in southeastern Alaska and northern British Columbia. No injuries and only minor damage were reported. Based on the Alaska regional seismic network data, the earthquake location was at 55.072N and 134.532W at a depth of 20 km, the estimated magnitude was 6.8. This earthquake was the largest to occur in the Queen Charlotte Islands region since the magnitude 6.3 earthquake on February 17, 2001. The M6.3 shock was located at 53.987N and 133.612W, 135 km (84 miles) south of the recent M6.8 event.

The M 6.8 earthquake occurred on the Queen Charlotte fault system. This is a strike-slip fault, which marks the boundary between the Pacific crustal plate to the southwest and the North American plate to the northeast. The largest recorded earthquake that had previously ruptured this section of the fault was the magnitude 8.1 earthquake on August 22, 1949. The elastic-wave radiation pattern of the M6.8 event is consistent with the earthquake occurring as the result of right-lateral strike-slip faulting on a northwest-striking fault - as expected from the tectonic situation of the earthquake (AEIC).

Earthquake Mitigation Goal and Projects

Goal 1: Obtain funding to protect existing critical infrastructure from earthquake damage.

Project E-1. If funding is available, perform an engineering assessment of the earthquake vulnerability of each identified critical infrastructure owned by the City of Craig. (Goal 1)

2017 Update: Project has not been implemented due to the unavailability of funding.

Project E-2. Identify buildings and facilities that must be able to remain operable during and following an earthquake event. (Goal 1)

2017 Update: This has been completed. The primary facilities are the school, water treatment plant, and wastewater treatment plant.

Project E-3. Contract a structural engineering firm to assess the identified buildings and facilities to determine their structural integrity and develop a strategy to improve their earthquake resistance. (Goal 1)

2017 Update: Project has not been implemented due to the unavailability of funding.

Project E-4. Three road bridges with water lines connected under them and one additional water line bridge connect the water source to the community and are vulnerable to earthquakes. Conduct a structural seismic assessment to determine if, in a major earthquake, the only community water main would be protected. Based on the engineering assessment, add seismic retrofits to the bridges.

This project was identified in 2017.

Project E-5. With only one water storage tank (800,000 gallons) located south of the community, 80% of the population would lose drinking water if the water main was damaged at the two earthen fill locations. To mitigate this issue, construct a storage tank within the west area of the community which would supply water to 35%, and construct a storage tank within the east area of the community which would supply water to an additional 45%.

This project was identified in 2017.

Project E-6. The Craig High School is the community's primary shelter and is vulnerable to earthquakes. Install a water storage tank to serve the northern area of the community.

This project was identified in 2017.

Project E-7. A secondary water source is needed in the event that the primary treatment plant or the dam at the water source is damaged. The prime location would be the old spring which is a subterranean water source that has less stringent treatment requirements before public use.

This project was identified in 2017.

Project E-8. The wastewater treatment plant and four community shelters need emergency power backup. This project has three components.

a. Create a memorandum of agreement or pre-disaster agreement with Tylor Equipment to provide 3-50 kva generators within 30-minutes of being called. Tylor Equipment has up to 3 generators on the island all the time for rent. Additional generators could be barged in from Ketchikan as needed.
b. Install generator connections at each of the shelter buildings with segregated circuits.
c. Purchase stand-alone generators for each of the shelters with on-site fuel storage.

This project was identified in 2017.

Project E-9. From an emergency response perspective, the Klawock Airport runway is 5,000-feet long and 100-feet wide and is capable of having a Hercules C-130 aircraft land to delivery relief supplies. However, there is only 2-inches of asphalt on the airport apron. The apron cannot handle the load. This is the only land-based airport on Prince of Wales Island. Add additional asphalt to the apron to sustain the load of a Hercules C-130 aircraft in the event of an emergency.

This project was identified in 2017.

Section 4. Severe Weather

The 2004 *Emergency Response Plan* stated Craig has frequent flight service and occasional Interisland Ferry cancellation due to severe wind, storms, or fog. Seasonally, air carrier transportation of passengers, mail, and goods is severely limited. Severe storms have lasted for several days. Severe winter storms have occasionally caused power outages of short to moderate duration. During such incidents, the opening and operation of mass care facilities with alternate power sources would be essential.

Hazard Description

High Winds

Strong winds occasionally occur over the interior due to strong pressure differences, especially where influenced by mountainous terrain, but the windiest places in Alaska are generally along the coastlines. The west coast along Bristol Bay and the Bering Sea, the Aleutian Islands, Kodiak Island, the Alaska Peninsula, the Gulf of Alaska coast, and the Southeast Panhandle all experience wind storms on a fairly regular basis. Coastal areas that are framed by mountains, such as Sitka, Craig, Ketchikan, and Juneau are particularly susceptible to high winds due to the channeling effect of the terrain as storms move inland (2013 State of Alaska *All-Hazard Mitigation Plan*).

Winds can reach hurricane force and have the potential to seriously damage port facilities, the fishing industry, and community infrastructure (especially above ground utility lines).

Localized downdrafts, downbursts and microbursts, are also important in Southeast Alaska. Downbursts and microbursts can be generated by thunderstorms. Downburst winds are strong concentrated straight-line winds created by falling rain and sinking air that can reach speeds of 125 mph. The combination induces strong wind downdrafts due to aerodynamic drag forces or evaporation processes. Microburst winds are more concentrated than downbursts and can reach speeds up to 150 mph. They can cause significant damage as both can last 5 – 7 minutes. Because of wind shear and detection difficulties, they pose a big threat to aircraft landings and departures.

Heavy Snow

Heavy snow, generally more than 12 inches of accumulation in less than 24 hours, can immobilize a community by bringing transportation to a halt. Until the snow can be removed, airports and major roadways are impacted, even closed completely, stopping the flow of supplies and disrupting emergency and medical services. Accumulations of snow can cause roofs to collapse and knock down trees and power lines. Heavy snow can also damage light aircraft and sink small boats. A quick thaw after a heavy snow can cause substantial flooding. The cost of snow removal, repairing damages, and the loss of business can have severe economic impacts on cities and towns. Injuries and deaths related to heavy snow usually occur as a result of vehicle accidents. Casualties

also occur due to overexertion while shoveling snow and hypothermia caused by overexposure to the cold weather.

Location

Severe weather hazards could impact Craig on an area-wide basis. A severe weather event would create an area-wide impact and could damage structures and potentially isolate Craig from the rest of the state.

Extent

Extreme weather could result in a ***critical*** situation in Craig. Injuries and/or illness could result from excessive rainfall or snowfall, and, combined with high winds, cause shutdown of critical facilities, damage property, and isolate Craig.

Impact

Because of its remote location, Craig must be very self-reliant. Severe weather can cut off air access, limiting Medevac availability and access to goods and services, including groceries and medical supplies. Severe wind causes extensive damage to critical structures including residences and public facilities. A severe weather event would create an area-wide impact and could damage structures and potentially isolate Craig from the rest of the state.

Probability

Craig has a ***moderate*** probability of severe weather, which is defined as the hazard is present with a moderate probability of occurrence within the next three years.

Previous Occurrences

The following occurrences of severe weather have been documented for the City of Craig.

Wrangell/Craig, November 6, 1978. During this period, an intense storm occurred in the Wrangell/Craig area in Southeastern Alaska generating high winds, torrential rains, and heavy sea waves. The storm caused considerable damage to both private and public property in the two communities. Subsequent to the Governor's Proclamation of Disaster Emergency, DHS&EM provided both public assistance and assistance to individuals and families to assist the communities in recovering from the disaster. SBA made disaster loans available to affected businesses and homeowners. (2016 *State of Alaska Disaster Cost Index*)

Southeast Alaska, November 26, 1984. A hurricane force windstorm and wind-driven tides caused extensive damage to public and private property in five Southeast Alaskan communities. The State provided public and individual assistance grants and temporary

housing in Juneau, **Craig**, Kake, Angoon and Tenakee Springs. SBA provided disaster loan assistance and the American Red Cross made grants to meet immediate needs of victims. The Governor's request for a Presidential declaration was denied. (2016 *State of Alaska Disaster Cost Index*)

Southeast Alaska, December 9-10, 1998. Dangerously high winds occurred throughout much of Southeast Alaska overnight on December 9 – 10, 1998, as a deep low-pressure system curved northward along the coast. The windstorm caused widespread power and telephone outages, downed dozens of trees, and damaged homes, buildings, and airplanes. Winds in excess of 70 mph, and as high as 101 mph, were recorded across the region. (2013 State of Alaska *All-Hazard Mitigation Plan*)

September 29, 2001: High Wind. A deep low-pressure system rolled up the southern outer coast of the Panhandle bringing very strong southeast winds to the area. Peak winds recorded during the event include 75 mph at the Ketchikan Airport tower, 58 mph winds in Saxman, 70 mph winds in Metlakatla, 75 mph winds at Hydaburg Seaplane Base, and 80 mph winds in **Craig**. Part of the pilothouse was blown off of the F/V Jackie. Debris struck the F/V Island Fox, damaging the gillnet drum and hydraulics. A large section of roof was blown off a trailer in Metlakatla during the storm.

November 2-3, 2001: High Wind. A very powerful 952 mb low in the northeast Gulf of Alaska brought very high winds to Southeast Alaska. Hurricane force winds were reported at several locations including **Craig** (85 mph), Yakutat (84 mph), Cape Spencer (83 mph), Ketchikan Harbor (74 mph), and downtown Juneau (74 mph). A large factory ship positioned in the northeast Gulf south of Cape Fairweather reported 115 mph winds with a peak gust of 164 mph.

December 23, 2001: High Wind. A strong weather front moving into the southern portion of Southeast Alaska brought strong gusty winds to that area during the evening hours. A second portion of the front came close enough to increase the winds again along the outer coast overnight. A peak gust of 93 mph was recorded in Craig near midnight, Cape Decision had 65 mph, Hydaburg had 64 mph, and Ketchikan terminal roof had 63 mph. Trees were blown over, downing power lines in Craig. Also, some trees fell on a shed, crushed some stairs, and blew a metal roof off of a trailer.

December 15, 2003: High Wind. A powerful front, associated with a low in the Aleutian chain, lifted through southern Southeast Alaska. Damaging south-southeast winds resulted. Peak winds included: 82 mph at the Hydaburg AWOS, 60 mph at the Ketchikan airport, and estimated gusts to 80 mph in both Craig and Metlakatla. The high winds downed trees and broke power lines in numerous locations. Power outages occurred in the communities of Craig, Thorne Bay, and Hydaburg. In Metlakatla harbor, high winds tore a third of the roof off a three-story cold storage building. The concrete structure had a wood and shingle roofing system.

Southeast Storm (AK-06-216) declared December 23, 2005 by Governor Murkowski: Beginning on November 18, 2005 and continuing through November 26,

2005, a strong winter storm with high winds and record rainfall occurred in the City/Borough of Juneau, the City/Borough of Haines, the City/Borough of Sitka, the City of Pelican, the City of Hoonah, and the **City of Craig**, which resulted in widespread coastal flooding, landslides, and severe damage and threat to life and property, with the potential for further damage. The total estimated amount of assistance was approximately $1.87 million. This included the following: Individual Assistance totaling $500K for 52 applicants and Public Assistance totaling $1.1 million for 14 applicants and 31 PWs. There was no hazard mitigation (2016 State of Alaska Disaster Cost Index).

December 27-29, 2006: High Wind. A 958 MB storm center moved into the Western Gulf on the afternoon of Wed. Dec. 27th with strong warm advection over all of SE Alaska. Strong surface pressure gradients formed along the outer coast. Cold air remained in a fairly deep layer over the Northern Panhandle which finally warmed on Friday, Dec 29th. This overrunning caused heavy snow in the higher elevations around the Northern end of Lynn Canal and into White Pass. A 944 MB Storm Force Low 200 NM west of the Queen Charlotte moved into the Eastern Gulf Friday afternoon Dec. 29th then recurved back to Middleton Island while weakening. Craig reported gusts of 69 MPH that occurred overnight prior to 0800 AKST 12/28. Surface analyses indicate that extreme surface pressure gradients developed across the area during the night of 12/27 and persisted through the morning of 12/29. Craig estimated gusts to 100 MPH on the afternoon of the 28th. The strong wind lasted until 5 AM 12/29.

January 14, 2014: Flood. A strong and very moist weather front with a tropical connection moved across Southeast Alaska January 13 and 14. An anomalous ridge of high-pressure set up over the eastern Pacific and western North America during the first week of January. The blocking ridge was oriented in a way that it steered a large plume of high precipitable water values northward. The associated atmospheric river moved into the eastern Gulf of Alaska from the North Pacific and then over the panhandle on January 14. The front produced strong wind gusts over the area as the front moved over the area. The combination of the wind and very wet soil conditions from almost 35 straight days of rain produced mud-slides over Prince of Wales Island, Ketchikan, and Sitka areas near steep terrain and/or clear-cut areas. It rained 17.34 inches over a 37-day period on Prince of Wales Island. There was just two days over that period of time that no rain fell for an average of just under one half of an inch of rain per day. The strong weather front that moved over the area on January 14 produced 2.42 inches and broke the daily rainfall record, the previous record was 1.47 inches from 2007. All of the record rainfall that day transferred into runoff and produced a record stream flow stage along Staney Creek of 17.55 feet which broke the previous record of 17.20 from 1993. There was moderate flooding from the rainfall along local streams and rivers with some impacts to homes. The very moist antecedent soil conditions, high rain rates along with strong wind gusts of 50 mph triggered land/mudslides near steep terrain and logging areas. These slides knocked down power lines and blocked roads. One big mud slide in particular blocked the main highway between Hollis and **Craig** for a period of time.

October 2-3, 2014: High Wind. A complex storm force low-pressure system developed in the NE Pacific on Thursday, Oct 2. During that afternoon, the main center

deepened to 973 Mb SSE of Kodiak Island while a triple point formed just west of Dixon Entrance. The triple point rapidly moved northward past the westward coast of Prince of Wales Island, causing near hurricane force damaging wind during the early evening. The front moved inland later that evening with the wind rapidly diminishing. Damage was observed in the town of **Craig**. From a trained spotter: 1 roof blew off neighbor's trailer home, a tree top broke off on the ballfield trail, and a home built within 8 years lost roof eaves and suffered roof damage. Craig emergency manager reported 2 residential roofs were blown off, 3 trees down, and 1 boat blown off of its trailer.

In Figure 5 below, severe weather events are defined as follows: High Winds (HW), Heavy Snow (Hvy Snow), Flood (FL), Frost/Freeze, Heavy Rain (Hvy Rain), Coastal Flood (Coastal FL) and Winter Storm (WS).

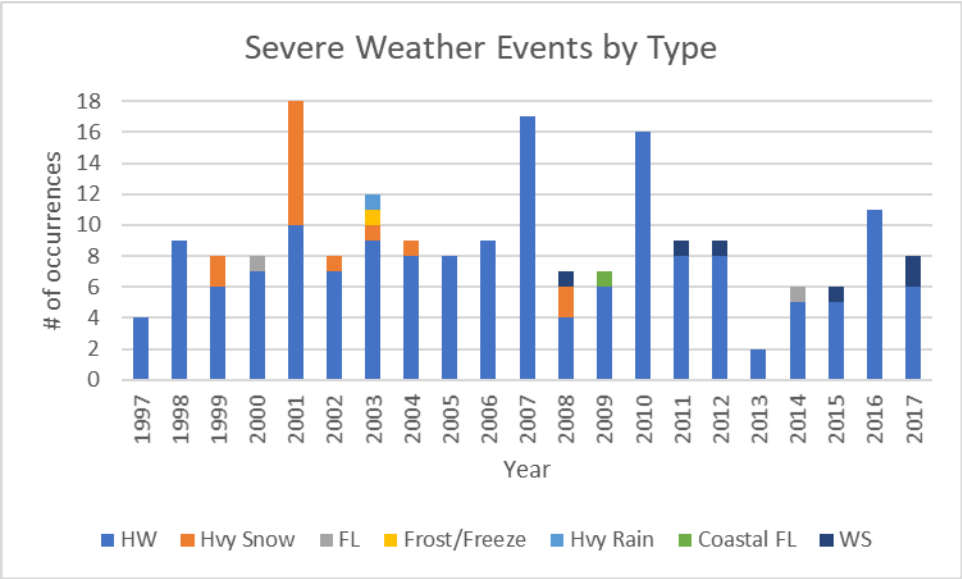


Figure 5. Severe Weather Events by Type

The following tables from the Western Regional Climate Center illustrate historic temperature and precipitation in Craig.

Table 15. Craig Temperature Summary

CRAIG, ALASKA

Period of Record General Climate Summary - Temperature

Station: (502227) CRAIG															
From Year=1949 To Year=2012															
	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	39.4	29.6	34.5	60	19/2009	2	01/1950	42.6	2003	20.5	1950	0.0	5.4	16.5	0.0
February	41.4	31.4	36.4	59	05/1995	13	23/1994	41.3	2010	33.6	1951	0.0	0.4	14.5	0.0
March	43.1	31.9	37.5	63	28/1994	4	05/1951	42.4	2005	32.7	1951	0.0	1.0	15.2	0.0
April	49.3	36.2	42.6	74	25/2005	23	09/1950	46.2	2004	40.3	1950	0.0	0.0	5.6	0.0
May	55.0	41.6	48.3	77	25/2008	25	29/1953	53.1	2005	44.9	1999	0.0	0.0	0.8	0.0
June	60.1	47.5	53.8	90	21/2004	30	03/1953	57.9	2004	50.1	2008	0.1	0.0	0.1	0.0
July	62.5	51.2	56.9	79	12/1952	41	21/1953	60.0	2004	54.3	2008	0.0	0.0	0.0	0.0
August	63.5	51.4	57.4	84	10/2004	33	17/1953	60.5	2005	54.3	1953	0.0	0.0	0.0	0.0
September	59.2	48.3	53.8	75	30/2003	32	25/1951	55.2	2010	52.3	1999	0.0	0.0	0.1	0.0
October	51.8	42.0	46.9	73	24/1995	26	24/1951	49.9	2003	45.5	2007	0.0	0.0	1.9	0.0
November	44.6	35.7	40.1	59	30/2002	11	26/2006	46.9	2002	32.9	2006	0.0	0.7	8.6	0.0
December	41.7	33.0	37.4	55	31/2001	2	31/1949	41.6	2005	30.7	1949	0.0	1.9	12.4	0.0
Annual	51.0	40.0	45.5	90	20040621	2	19491231	46.7	2010	45.0	2011	0.1	9.4	75.6	0.0
Winter	40.8	31.3	36.1	60	20090119	2	19491231	39.0	2010	28.7	1950	0.0	7.7	43.5	0.0
Spring	49.1	36.6	42.8	77	20080525	4	19510305	47.2	2005	41.3	1951	0.0	1.0	21.5	0.0
Summer	62.0	50.0	56.0	90	20040621	30	19530603	58.3	2005	53.7	2008	0.1	0.0	0.1	0.0
Fall	51.9	42.0	46.9	75	20030930	11	20061126	49.9	2002	44.8	2006	0.0	0.7	10.5	0.0

Table updated on Oct 31, 2012

Table 16. Craig Precipitation Summary

CRAIG, ALASKA

Period of Record General Climate Summary - Precipitation

Station:(502227) CRAIG														
From Year=1949 To Year=2012														
	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-
January	8.24	16.31	1993	0.40	1950	3.95	18/1993	20	15	6	2	5.1	11.6	1993
February	8.40	15.55	1993	3.69	2010	4.90	26/1993	17	13	6	2	6.3	44.0	1950
March	8.07	13.47	2008	2.87	2006	2.90	12/1994	21	16	5	2	5.8	22.6	2007
April	7.41	12.81	1950	1.25	2002	7.56	16/1953	19	14	5	2	0.4	3.8	2010
May	5.38	12.70	1999	1.70	2004	3.35	03/1992	18	12	4	1	0.0	0.0	1950
June	3.05	5.30	2010	1.34	2007	1.30	28/2009	15	8	2	0	0.0	0.0	1950
July	4.13	7.53	2005	1.22	2009	1.60	10/2007	18	11	2	0	0.0	0.0	1950
August	6.02	12.35	2011	2.54	1951	3.65	28/1999	18	12	4	1	0.0	0.0	1950
September	10.17	18.16	2011	3.54	2008	3.20	22/1949	20	16	8	3	0.0	0.0	1949
October	13.06	20.97	1949	6.86	2012	8.96	16/1952	23	18	9	3	0.0	0.0	1949
November	12.29	22.30	1991	5.63	1950	7.34	13/1952	22	19	9	3	1.9	11.4	2011
December	10.80	17.67	1993	3.06	2009	2.63	19/2003	22	18	8	3	3.0	10.0	2001
Annual	97.04	114.41	1994	84.01	2009	8.96	19521016	233	173	68	23	22.5	26.2	2009
Winter	27.45	42.74	1993	14.26	2010	4.90	19930226	60	46	21	7	14.4	29.3	2008
Spring	20.86	30.42	1953	8.01	2002	7.56	19530416	57	42	14	4	6.2	22.6	2007
Summer	13.20	19.31	2011	10.12	1992	3.65	19990828	51	32	8	2	0.0	0.0	1950
Fall	35.52	50.55	1994	24.72	1951	8.96	19521016	65	53	26	9	1.9	9.3	2006

Table updated on Oct 31, 2012

Western Regional Climate Center, wrcc@dri.edu

Severe Weather Mitigation Goals and Projects

Goal 1. Mitigate the effects of extreme weather by instituting programs that provide early warning and preparation.

Goal 2. Educate people about the dangers of extreme weather and how to prepare.

Goal 3. Develop practical measures to warn in the event of a severe weather event.

Project SW-1. Research and consider instituting the National Weather Service program of *"Storm Ready"*. (Goals 1, 2, 3)

Storm Ready is a nationwide community preparedness program that uses a grassroots approach to help communities develop plans to handle all types of severe weather—from tornadoes to tsunamis. The program encourages communities to take a new, proactive approach to improving local hazardous weather operations by providing emergency managers with clear-cut guidelines on how to improve their hazardous weather operations.

To be officially Storm Ready, a community must:

1. Establish a 24-hour warning point and emergency operations center.
2. Have more than one way to receive severe weather forecasts and warnings and to alert the public.
3. Create a system that monitors local weather conditions.
4. Promote the importance of public readiness through community seminars.
5. Develop a formal hazardous weather plan, which includes training severe weather spotters and holding emergency exercises.
6. Demonstrate a capability to disseminate warnings.

Specific Storm Ready guidelines, examples, and applications also may be found on the Internet at: www.nws.noaa.gov/stormready

2017 Update: This project has been implemented and completed.

Project SW-2. Conduct special awareness activities, such as, Winter Awareness Week, Flood Awareness Week. (Goals 1, 2, 3)

2017 Update: Craig has conducted tsunami awareness activities but has not conducted winter or flood awareness activities.

Project SW-3. Expand public awareness about NOAA Weather Radio for continuous weather broadcasts and warning tone alert capability. (Goals 1, 2, 3)

2017 Update: Schools have weather radios; severe weather advisories from NOAA are received via Twitter feed; also receive direct email of severe weather from weather service.

Project SW-4. Developers are provided with seismic, wind, and snow load requirements during the City's building permitting process. Code requires weather-resistant building construction materials and practices. (Goals 1, 2, 3)

2017 Update: This program has been implemented and is on-going.

Project SW-5. Along St Nicholas Road, culverts are needed. Some culverts are undersized, and some locations do not have culverts. An engineer should conduct a hydrology study and install 10-20 under road culverts accordingly to prevent over road water flow during rain events.

This project was identified in 2017.

Section 5. Wildland Fire

Hazard Description

Wildland fires occur in every state in the country, and Alaska is no exception. Each year, between 600 and 800 wildland fires, mostly between March and October, burn across Alaska causing extensive damage.

Fire is recognized as a critical feature of the natural history of many ecosystems. It is essential to maintain the biodiversity and long-term ecological health of the land. In Alaska, the natural fire regime is characterized by a return interval of 50 to 200 years, depending on the vegetation type, topography, and location. The role of wildland fire as an essential ecological process and natural change agent has been incorporated into the fire management planning process, and the full range of fire management activities is exercised in Alaska to help achieve ecosystem sustainability, including its interrelated ecological, economic, and social consequences on firefighter and public safety and welfare, natural and cultural resources threatened, and the other values to be protected dictate the appropriate management response to the fire. Firefighter and public safety is always the first and overriding priority for all fire management activities.

Fires can be divided into the following categories:

Structure fires – originate in and burn a building, shelter, or other structure.

Prescribed fires - ignited under predetermined conditions to meet specific objectives, to mitigate risks to people and their communities, and/or to restore and maintain healthy, diverse ecological systems.

Wildland fire - any non-structure fire, other than prescribed fire, that occurs in the wildland.

Wildland Fire Use - a wildland fire functioning in its natural ecological role and fulfilling land management objectives.

Wildland-Urban Interface Fires - fires that burn within the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. The potential exists in areas of wildland-urban interface for extremely dangerous and complex fire conditions, which pose a tremendous threat to public and firefighter safety.

Fuel, weather, and topography influence wildland fire behavior. Wildland fire behavior can be erratic and extreme, causing firewhirls and firestorms that can endanger the lives of the firefighters trying to suppress the blaze. Fuel determines how much energy the fire releases, how quickly the fire spreads, and how much effort is needed to contain the fire. Weather is the most variable factor. Temperature and humidity also affect fire behavior. High temperatures and low humidity encourage fire activity while low

temperatures and high humidity help retard fire behavior. Wind affects the speed and direction of a fire. Topography directs the movement of air, which can also affect fire behavior. When the terrain funnels air, like what happens in a canyon, it can lead to faster spreading. Fire can also travel up slope quicker than it goes down.

Location

The hazard of a wildland fire would impact Craig. Many structures within the community are situated very close together.

Extent

A structural fire event could result in a **limited** situation in Craig. Injuries and/or illness could result from excessive smoke, shutdown critical facilities, and damage property.

Impact

Craig residents must be fairly self-reliant because of the community's remote location. A fire event could leave community residents homeless and damage critical structures. Fires could also cause a severe air quality issue as the result of smoke. Smoke from wildfires could adversely affect specific vulnerable populations in Craig such as the elderly, youth, tourists and people with respiratory conditions. The community relies on fishing and tourism as their main industries for their economy.

Probability

The following map from the 2013 State of Alaska *All-Hazard Risk Mitigation Plan* depicts Craig as being in an area where wildland fire hazards are present but at an unknown probability.

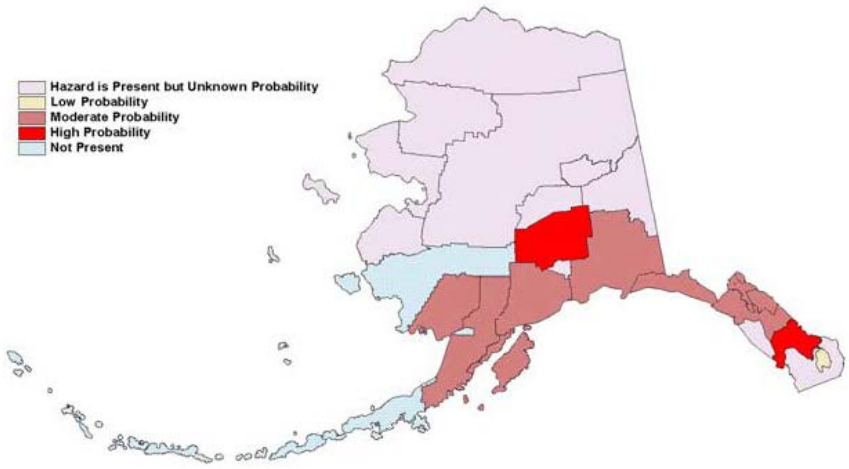


Figure 6. Alaska All-Hazards Mitigation Plan - Fire Risk Map

Previous Occurrences

Craig is located in an area where the wildland fire hazard is present but its probability is unknown. To date, there have been two wildland fires with estimated loss greater than 5 acres since 1939 occurring within 10 miles of the City of Craig.

Wildland Fire Mitigation Goals and Projects

Wildland Fire Goals

Goal 1: Establish building regulations to mitigate against fire damage.

Goal 2: Conduct outreach activities to encourage the use of Fire Wise development techniques.

Projects

WF1: Promote Fire Wise building design, siting, and materials for construction.

This project was identified in 2017.

WF2: Enhance public awareness of potential risk to life and personal property. Encourage mitigation measures in the immediate vicinity of their property.

This project was identified in 2017.

Section 6. Climate Change

Hazard Description

For this MHMP, climate change refers to the long-term variation in atmospheric composition and weather patterns on a global scale. Global climate change may occur gradually due to small variations or rapidly due to large catastrophic forces. Greenhouse gasses, especially carbon dioxide (CO_2) and methane (CH_4), are commonly regarded as the most significant factors influencing the Earth's current climate.

Significant atmospheric variations may also be influenced by more than one event, for instance, an asteroid impact and a major eruption over a longer time period. For scientists studying climate change, both hazards imply different time periods. Therefore, the time period estimates for previous climate change events tend to vary and cannot be accurately applied to current predictive climate change models, which now must account for human activity. This is significant because hazard mitigation planning relies greatly upon the historical record.

Location

Climate change is a global event. Therefore, the entire City of Craig is vulnerable to climate change.

Extent

Climate change affects water acidity, atmospheric composition, precipitation, weather patterns, and temperatures.

Local Impact

Climate change has the potential to aggravate natural disasters along the coastline, particularly flooding and permafrost degradation. Climate change will continue to exacerbate the issue.

Global Impact

The major effect of climate change is the abrupt decline of the earth's bio-diversity and population of organisms.

Probability

Given the current observed changes in the atmosphere, and the criteria identified in Table 11, it is "credible" a disaster event attributed to climate change will occur in the next ten years as the probability is less than or equal to 10% likely per year.

Previous Occurrences

Various events have occurred in Craig that point to climate change. These events, per Craig residents, are:

- Fishermen are seeing warm water fish;
- No changing climate patterns;
- Residents are seeing Sturling's black bird with yellow beak which has not been seen in the area before;
- Residents are seeing doves in Craig and as far north as Juneau and Sitka;
- Experiencing dryer winters; and
- Yellow cedar trees are dying due to lack of winter snowpack, as reported by foresters; yellow cedars need the snow insulation to protect the root system from freezing.

Section 7. Hazards not present in Craig

Volcanoes

The responsibility for hazard identification and assessment for the active volcanic Centers of Alaska falls to the Alaska Volcano Observatory and its constituent organizations (USGS, DGGS, and UAF).

The Alaska Volcano Observatory (AVO), which is a cooperative program of the U.S. Geological Survey (USGS), Alaska Division of Geological & Geophysical Surveys (DGGS), and the University of Alaska Fairbanks Geophysical Institute (UAF/GI), monitor the seismic activity at 23 of Alaska's 41 active volcanoes in real time. In addition, satellite images of all Alaskan and Russian volcanoes are analyzed daily for evidence of ash plumes and elevated surface temperatures. Russian volcanoes are also a concern to Alaska as prevailing winds could carry large ash plumes from Kamchatka into Alaskan air space. AVO also researches the individual history of Alaska's active volcanoes and produces hazard assessment maps for each center.

The AVO identifies the closest active volcano to Craig at being over 400 miles away. http://www.avo.alaska.edu/

Snow Avalanche

The topography of the Craig area does not create a snow avalanche risk within the city limits.

Floods/Erosion

The City of Craig does not participate in the National Flood Insurance Program and does not consider either flooding or erosion as a hazard present in the community. There are no repetitive loss properties identified in the community of Craig.

Chapter 5: Mitigation Strategy

Benefit - Cost Review

This chapter of the plan outlines Craig's overall strategy to reduce its vulnerability to the effects of the hazards studied. Currently, the planning effort is limited to the hazards determined to be of the most concern: tsunami, ground failure (landslide), earthquakes, severe weather, wildland fire, climate change; and technological hazards. The mitigation strategy will be regularly updated as additional hazard information is added, and new information becomes available.

The projects listed in Table 12, Benefit and Costs Listing, were prioritized using a "listing of benefits and costs review method" as described in the FEMA *How-To-Guide Benefit-Cost Review in Mitigation Planning* (FEMA 386-5).

Due to monetary as well as other limitations, it is often impossible to implement all mitigation actions. Therefore, the most cost-effective actions for implementation will be pursued for funding first, not only to use resources efficiently, but also to make a realistic start toward mitigating risks.

The City of Craig considered the following factors in prioritizing the mitigation projects. Due to the dollar value associated with both life-safety and critical facilities, the prioritization strategy represents a special emphasis on benefit-cost review because the factors of life-safety and critical facilities steered the prioritization towards projects with likely good benefit-cost ratios.

1. Extent to which benefits are maximized when compared to the costs of the projects, the Benefit Cost Ratio must be 1.0 or greater.

2. Extent the project reduces risk to life-safety.

3. Project protects critical facilities or critical City functionality.

4. Hazard probability.

5.. Hazard severity.

Some of the criteria that were reviewed in developing the Benefit and Cost Listing Table are listed below.

1. Vulnerability before and after mitigation

    - Number of people affected by the hazard, areawide, or specific properties.
    - Areas affected (acreage) by the hazard

- Number of properties affected by the hazard
- Loss of use
- Loss of life (number of people)
- Injury (number of people)

2. List of Benefits

- Risk reduction (immediate or medium time frame)
- Other community goals or objectives achieved
- Easy to implement
- Funding available
- Politically or socially acceptable

3. Costs

- Construction cost
- Programming cost
- Long time frame to implement
- Public or political opposition
- Adverse environmental effects

This method supports the principle of benefit-cost review by using a process that demonstrates a special emphasis on maximization of benefits over costs. Projects that demonstrate benefits over costs and that can start immediately were given the highest priority. Projects that the costs somewhat exceed immediate benefit and that can start within five years (or before the next update) were given a description of medium priority, with a timeframe of one to five years. Projects that are very costly without known benefits, probably cannot be pursued during this plan cycle, but are important to keep as an action were given the lowest priority and designated as long term.

The plan is subject to final Craig City Council approval after pre-approval is obtained by DHS&EM.

After the MHMP Update has been approved, the projects must be evaluated using a Benefit-Cost Analysis (BCA) during the funding cycle for disaster mitigation funds from DHS&EM and FEMA.

A description of the BCA process follows, briefly, BCA is the method by which the future benefits of a mitigation project are determined and compared to its cost. The result is a Benefit-Cost Ratio, which is derived from a project's total net benefits divided by its total cost. The BCR is a numerical expression of the cost-effectiveness of a project. Composite BCRs of 1.0 or greater have more benefits than costs, and are, therefore, cost-effective.

Benefit-Cost Review vs. Benefit-Cost Analysis (FEMA 386-5) states in part:
Benefit-Cost Review for mitigation planning differs from the benefit cost analysis (BCA) used for specific projects. BCA is a method for determining the potential positive effects of a mitigation action and comparing them to the cost of the action. To assess and demonstrate the cost-effectiveness of mitigation actions, FEMA has developed a suite of BCA software, including hazard-specific modules. The analysis determines whether a mitigation project is technically cost-effective. The principle behind the BCA is that the benefit of an action is a reduction in future damages.

DMA 2000 does not require hazard mitigation plans to include BCAs for specific projects, but does require that a BCR be conducted in prioritizing projects.

Benefit-Cost Analysis

The following section is reproduced from a document prepared by FEMA, which demonstrates on how to perform a Benefit –Cost Analysis. The complete guideline document, a benefit-cost analysis document and benefit-cost analysis technical assistance is available online https://www.fema.gov/benefit-cost-analysis.

Facilitating BCA

Although the preparation of a BCA is a technical process, FEMA has developed software, written materials, and training that simplifies the process of preparing BCAs. FEMA has a suite of BCA software for a range of major natural hazards: earthquake, fire (wildland/urban interface fires), flood (riverine, coastal A-Zone, Coastal V-Zone), Hurricane Wind (and Typhoon), and Tornado.

Sometimes there is not enough technical data available to use the BCA software mentioned above. When this happens, or for other common, smaller-scale hazards or more localized hazards, BCAs can be done with the Frequency Damage Method (i.e., the Riverine Limited Data module), which is applicable to any natural hazard as long as a relationship can be established between how often natural hazard events occur and how much damage and losses occur as a result of the event. This approach can be used for coastal storms, windstorms, freezing, mud/landslides, severe ice storms, snow, tsunami, and volcano hazards.

Applicants and Sub-Applicants must use FEMA-approved methodologies and software to demonstrate the cost-effectiveness of their projects. This will ensure that the calculations and methods are standardized, facilitating the evaluation process. Alternative BCA software may also be used, but only if the FEMA Regional Office and FEMA Headquarters approve the software.

To assist Applicants and Sub-applicants, FEMA has prepared the *FEMA Mitigation BCA Toolkit* CD. This CD includes all of the FEMA BCA software, technical manuals, BC training courses, Data-Documentation Templates, and other supporting documentation and guidance.

The *Mitigation BCA Toolkit* CD is available free from FEMA Regional Offices or via the BC Helpline (at bchelpline@dhs.gov or toll-free number at (866) 222-3580.

The BC Helpline is also available to provide BCA software, technical manuals, and other BCA reference materials as well as to provide technical support for BCA.

For further technical assistance, Applicants or Sub-Applicants may contact their State Mitigation Office, the FEMA Regional Office, or the BC Helpline. FEMA and the BC Helpline provide technical assistance regarding the preparation of a BCA.

Eligible Projects for Pre-Disaster Mitigation and Hazard Mitigation Grant Program Funding

To be eligible for funding under the HMGP, proposed measures must meet the minimum project criteria under 44 CFR 206.434(b).

These criteria are designed to ensure that the most appropriate projects are selected for funding.

Projects may be of any nature that will result in protection of public or private property from natural hazards. Some types of projects that **may be eligible include**:

- Acquisition of hazard prone property and conversion to open space;
- Retrofitting existing buildings and facilities;
- Elevation of flood prone structures;
- Vegetative management/soil stabilization;
- Infrastructure protection measures;
- Stormwater management;
- Minor structural flood control projects; and
- Post-disaster code enforcement activities.

The following types of projects **are not** eligible under the HMGP:

- Retrofitting places of worship (or other projects that solely benefit religious organizations); and
- Projects in progress.

There are five minimum criteria that all projects must meet in order to be considered for funding:

- Conforms with the State Hazard Mitigation Plan;
- Provides beneficial impact upon the designated disaster area;

- Conforms with environmental laws and regulations;
- Solves a problem independently or constitutes a functional portion of a solution; and
- Is cost-effective.

Benefit – Costs Review Listing Table

Table 17. Benefit Cost Review Listing

The City chose to keep the same priorties as the previous HMP.

Priorities: High = Clearly a life/safety project, or benefits clearly exceed the cost or can be implemented 0 – 1 year.
Medium = More study required to designate as a life/safety project, or benefits may exceed the cost, or can be implemented in 1 – 5 years.
Low = More study required to designate as a life/safety project, or not known if benefits exceed the costs, or long-term project, implementation will not occur for over 5 years.

Mitigation Projects	Benefits (pros)	Costs (cons)	Priority	Status in 2017
Tsunami (T)				
T-1. Inundation Mapping	FEMA, PDM, HMGP and State DCRA funding available. NOAA/NWS facilitated project. 1 – 5 year project.	Expensive, at least $100,000	Medium	Completed. Maps will be published in 2018. This project can be deleted in the next update.
T-2. Update Craig Emergency Response Plan	Life/Safety issue Risk reduction Benefit to entire community Inexpensive State assistance available 1 – 5 years, or as needed.	Staff time	Medium	Currently working on new plan. This project will be completed in 2018.
T-3. Tsunami Ready Certification	Life/Safety issue Risk reduction Benefit to entire community State assistance available 1 – 5 years, or as needed.	Staff time	Medium	This certification has been obtained. This project can be deleted in the next plan update.
T-4. Tsunami Warning Systems	Life/Safety issue Risk reduction Benefit to entire community State assistance available 1 – 5 years, or as needed.	Staff time	Medium	Two sirens have been installed. Schools have radios and marine bands. This project can be deleted in the next plan update.

T-5. Evacuation maps and plans	Life/Safety issue Risk reduction Benefit to entire community State assistance available 1 – 5 years, or as needed.	Staff time	Medium	The City is developing evacuation maps/plans and will finalize them after the inundation maps are published in 2018.
T-6. Emergency Operations Exercises	Life/Safety issue Risk reduction Benefit to entire community State assistance available 1 – 5 years, or as needed.	Staff time	Medium	Ongoing. Conduct 3-4 per year.
Ground Failure (G/F)				
G/F-1. Continued Maintenance and Replacement of Generators at Water Treatment Plan, as needed.	Life/Safety issue/Risk reduction Benefit to entire community Expensive	Staff time to apply for grant	High	Plant back up generators were installed in 2005/2006 and are maintained by the City. A project to mitigate this hazard is listed in the earthquake section of this table.
G/F-2. Continued public education.	Life/Safety issue/Risk reduction Benefit to entire community Federal and State assistance available	Mapped landslide zones do not exist at this time.	High	Ongoing.
G/F-3. Conduct studies of unstable soils	Life/Safety issue/Risk reduction Benefit to entire community Federal and State assistance available	Mapped landslide zones do not exist at this time. 5+ years to implement	Low	Map landslide zones.

Earthquake (E)				
E-1. If funding is available, perform an engineering assessment of the earthquake vulnerability.	Life/Safety issue/Risk reduction Benefit to entire community Inexpensive State assistance available Could be an annual event	Staff time	High	Not completed due to lack of funding
E-2. Identify buildings and facilities that must be able to remain operable during and following an earthquake event.	Life/Safety issue/Risk reduction Benefit to entire community Inexpensive State assistance available Could be an annual event	Staff time	High	Not completed due to lack of funding
E-3. Contract a structural engineering firm to assess the identified bldgs and facilities.	Benefit to entire community Risk reduction	Feasibility and need analysis needed. 1 – 5 years	Medium	Not completed due to lack of funding
Project E-4. Three road bridges with water lines connected under them and one additional water line bridge connect the water source to the community and are vulnerable to earthquakes. Conduct a structural seismic assessment to determine if, in a major earthquake, the only community water main would be protected. Based on the engineering assessment, add seismic retrofits to the bridges.	Benefit to entire community Risk reduction Access to drinking water is critical to life	Feasibility and need analysis needed. 1 – 5 years	High	New project identified in 2017

Project E-5. With only one water storage tank (800,000 gallons) located south of the community, 80% of the population would lose drinking water if the water main was damaged at the two earthen fill locations. To mitigate this issue, construct a storage tank within the west area of the community which would supply water to 35%, and construct a storage tank within the east area of the community which would supply water to an additional 45%.	Benefit to entire community Risk reduction Access to drinking water is critical to life	Feasibility and need analysis needed. 1 – 5 years	High	New project identified in 2017
Project E-6. The Craig High School is the community's primary shelter and is vulnerable to earthquakes. Install a water storage tank to serve the northern area of the community.	Benefit to entire community Risk reduction Access to drinking water is critical to life	Feasibility and need analysis needed. 1 – 5 years	High	New project identified in 2017
Project E-7. A secondary water source is needed in the event that the primary treatment plant or the dam at the water source is damaged. The prime location would be the old spring which is a subterranean water source that has less stringent treatment requirements before public use.	Benefit to entire community Risk reduction Access to drinking water is critical to life	Feasibility and need analysis needed. 1 – 5 years	High	New project identified in 2017

Project E-8. The wastewater treatment plant and four community shelters need emergency power backup. This project has three components.	Benefit to entire community Risk reduction Access to heat is critical to life	Feasibility and need analysis needed. 1 – 5 years	High	New project identified in 2017
Project E-9. From an emergency response perspective, the Klawock Airport runway is 5,000-feet long and 100-feet wide and is capable of having a Hercules C-130 aircraft land to delivery relief supplies. However, there is only 2-inches of asphalt on the airport apron. The apron cannot handle the load. This is the only land-based airport on Prince of Wales Island. Add additional asphalt to the apron to sustain the load of a Hercules C-130 aircraft in the event of an emergency.	Benefit to entire community Risk reduction Emergency access is critical to life	Feasibility and need analysis needed. 1 – 5 years	High	New project identified in 2017

Severe Weather (S/W)				
S/W-1. Research and consider instituting the National Weather Service program of *"Storm Ready"*.	Life/Safety issue Risk reduction Benefit to entire community Inexpensive State assistance available Could be implemented annually	Staff time	High	Completed
S/W-2. Conduct special awareness activities, such as Winter Weather Awareness Week, Flood Awareness Week, etc.	Life/Safety issue Risk reduction Benefit to entire community Inexpensive State assistance available Could be an annual event	Staff time	High	Completed (but for tsunamis, not winter weather or floods)
S/W-3. Expand public awareness about NOAA Weather Radio for continuous weather broadcasts and warning tone alert capability	Life/Safety issue Risk reduction Benefit to entire community Inexpensive State assistance available Could be an annual event	Staff time	High	Completed
S/W-4. Encourage weather resistant building construction materials and practices.	Risk and damage reduction. Benefit to entire community.	Would require ordinance change. Potential for increased staff time. Research into feasibility necessary. Political and public support not determined. 1 – 5 year implementation	Medium	Completed and ongoing as part of City's building permit process.

Severe Weather (S/W)				
S/W-5. Along St Nicholas Road, culverts are needed. Some culverts are undersized, and some locations do not have culverts. An engineer should conduct a hydrology study and install 10-20 under road culverts accordingly to prevent over road water flow during rain events.	Risk and damage reduction. Benefit to entire community.	Would require engineering contractor.	Medium	New project identified in 2017
Wildland Fire (WF)				
WF1: Promote Fire Wise building design, siting, and materials for construction.	Risk and damage reduction. Benefit to entire community.	Staff Time.	Medium	New project identified in 2017
WF2: Enhance public awareness of potential risk to life and personal property. Encourage mitigation measures in the immediate vicinity of their property.	Risk and damage reduction. Benefit to entire community.	Staff Time.	Medium	New project identified in 2017

Mitigation Project Plan Table

Table 18. Mitigation Project Plan

Mitigation Projects	Responsible Agency	Cost	Funding Sources	Estimated Timeframe	Annual Review
Tsunami (T)					
T-1. Inundation Mapping	City DHS&EM NOAA/NWS	>$100,000	State Funds NOAA/NWS	Completed.	
T-2. Update Craig Emergency Response Plan	City DHS&EM	>$10,000	State Federal DHS City	Will be completed in 2018.	
T-3. Seek TsunamiReady Cert.	City DHS&EM			Completed.	
T-4. Warning Radio Systems	NOAA	>$50,000	State Funds NOAA/NWS	Completed.	
T-5. Evacuation maps and plans	DHS&EM City	>$10,000	State City	Will be completed in 2018.	
T-6. EOP Exercises	City DHS&EM	>$10,000	State City	As needed	
Ground Failure (G/F)					
G/F-1. Continued Maintenance and Replacement of Generators at Water Treatment Plan, as needed.	City DHS&EM	>$100,000	PDM	Implement E-8 project under Earthquakes	
G/F-2. Continue to educate public about ground failure hazards.	City	Staff Time	City Budget	Next year	
G/F-3. Conduct studies of unstable soils	City	>$10,000	City Budget State Funds	>1 year	

Earthquake (E)					
E-1. If funding is available, perform an engineering assessment of the earthquake vulnerability of each identified critical infrastructure owned by the City of Craig City.	City DHS&EM	To be determined	State Grants	>1 year	New project identified in 2017
E-2. Identify buildings and facilities that must be able to remain operable during and following an earthquake event.	City DHS&EM DCRA	Staff Time	State Grants	>1 year	New project identified in 2017
E-3. Contract a structural engineering firm to assess the identified buildings and facilities.	City DHS&EM	>$50,000	PDM	>5 years	New project identified in 2017
E-4. Conduct a structural seismic assessment to determine if, in a major earthquake, the only community water main would be protected. Based on the engineering assessment, add seismic retrofits to the bridges.	City DHS&EM	>$50,000	PDM	>5 years	New project identified in 2017
E-5. Construct a storage tank within the west area of the community which would supply water to 35%, and construct a storage tank within the east area of the community which would supply water to an additional 45%.	City DHS&EM	>$900,000	PDM	>5 years	New project identified in 2017
E-6. Install a water storage tank to serve the northern area of the community.	City DHS&EM	>$900,000	PDM	>5 years	New project identified in 2017

E-7. A secondary water source is needed in the event that the primary treatment plant or the dam at the water source is damaged. The prime location would be the old spring which is a subterranean water source that has less stringent treatment requirements before public use.	City DHS&EM	>$300,000	PDM	>5 years	New project identified in 2017
E-8. The wastewater treatment plant and four community shelters need emergency power backup. This project has three components.	City DHS&EM	>$50,000	PDM	>5 years	New project identified in 2017
E-9. From an emergency response perspective, the Klawock Airport runway is 5,000-feet long and 100-feet wide and is capable of having a Hercules C-130 aircraft land to delivery relief supplies. However, there is only 2-inches of asphalt on the airport apron. The apron cannot handle the load. This is the only land-based airport on Prince of Wales Island. Add additional asphalt to the apron to sustain the load of a Hercules C-130 aircraft in the event of an emergency.	City DHS&EM	>$900,000	PDM	>5 years	New project identified in 2017

Severe Weather (SW)					
SW-1. Research and consider instituting the National Weather Service program of *"Storm Ready"*.	City	Staff Time	City	Completed	
SW-2. Conduct special awareness activities, such as Winter Weather Awareness Week, Flood Awareness Week, etc.	City DCRA DHS&EM	Staff Time	City DCRA DHS&EM	<1 year	
SW-3. Expand public awareness about NOAA Weather Radio for continuous weather broadcasts and warning tone alert capability	City	Staff Time	NOAA	Ongoing	
SW-4. Encourage weather resistant building construction materials and practices.	City	Staff Time	City	<1 year	Completed and ongoing as part of City's building permit process.
SW-5. Along St Nicholas Road, culverts are needed. Some culverts are undersized, and some locations do not have culverts. An engineer should conduct a hydrology study and install 10-20 under road culverts accordingly to prevent over road water flow during rain events.	City	Contract Engineering Firm	City	<1 year	New project identified in 2017

Wildland Fire					
WF1: Promote Fire Wise building design, siting, and materials for construction.	City	Staff Time	City	<1 year	New project identified in 2017
WF2: Enhance public awareness of potential risk to life and personal property. Encourage mitigation measures in the immediate vicinity of their property.	City	Staff Time	City	<1 year	New project identified in 2017

* PDM Pre-Disaster Mitigation
** HMGP Hazard Mitigation Grant Program
***FMA Flood Mitigation Assistance (Program)

Glossary of Terms

A-Zones

Type of zone found on all Flood Hazard Boundary Maps (FHBMs), Flood Insurance Rate Maps (FIRMs), and Flood Boundary and Floodway Maps (FBFMs). An A-Zone Area is defined as an area of a potential 100-year flood.

Acquisition

Local governments can acquire lands in high hazard areas through conservation easements, purchase of development rights, or outright purchase of property.

Asset

Any manmade or natural feature that has value, including, but not limited to people; buildings; infrastructure like bridges, roads, and sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.

Base Flood

A term used in the National Flood Insurance Program to indicate the minimum size of a flood. This information is used by a community as a basis for its floodplain management regulations. It is the level of a flood, which has a one-percent chance of occurring in any given year. Also known as a 100-year flood elevation or one-percent chance flood.

Base Flood Elevation (BFE)

The elevation for which there is a one-percent chance in any given year that floods water levels will equal or exceed it. The BFE is determined by statistical analysis for each local area and designated on the Flood Insurance Rate Maps. It is also known as a 100-year flood elevation.

Base Floodplain

The area that has a one percent chance of flooding (being inundated by flood waters) in any given year.

Building

A structure that is walled and roofed, principally above ground and permanently affixed to a site. The term includes a manufactured home on a permanent foundation on which the wheels and axles carry no weight.

Building Code

The regulations adopted by a local governing body setting forth standards for the construction, addition, modification, and repair of buildings and

other structures for the purpose of protecting the health, safety, and general welfare of the public.

Community

Any state, area or political subdivision thereof, or any Indian tribe or tribal entity that has the authority to adopt and enforce statutes for areas within its jurisdiction.

Community Rating System (CRS)

The Community Rating System is a voluntary program that each City or county government can choose to participate. The activities that are undertaken through CRS are awarded points. A community's points can earn people in their community a discount on their flood insurance premiums.

Critical Facility

Facilities that are critical to the health and welfare of the population and that are especially important during and after a hazard event. Critical facilities include, but are not limited to, shelters, hospitals, and fire stations.

Designated Floodway

The channel of a stream and that portion of the adjoining floodplain designated by a regulatory agency to be kept free of further development to provide for unobstructed passage of flood flows.

Development

Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or of equipment or materials.

Digitize

To convert electronically points, lines, and area boundaries shown on maps into x, y coordinates (e.g., latitude and longitude, universal transverse mercator (UTM), or table coordinates) for use on the computer.

Disaster Mitigation Act (DMA)

DMA 2000 (public Law 106-390) is the latest legislation of 2000 (DMA 2000) to improve the planning process. It was signed into law on October 10, 2000. This new legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur.

Earthquake

A sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of the earth's tectonic plates.

Elevation

The raising of a structure to place it above flood waters on an extended support structure.

Emergency Operations Plan (EOP)

A document that: describes how people and property will be protected in disaster and disaster threat situations; details who is responsible for carrying out specific actions; identifies the personnel, equipment, facilities, supplies, and other resources available for use in the disaster; and outlines how all actions will be coordinated.

Erosion

The wearing away of the land surface by running water, wind, ice, or other geological agents.

Federal Disaster Declaration

The formal action by the President to make a State eligible for major disaster or emergency assistance under the Robert T. Stafford Relief and Emergency Assistance Act, Public Law 93-288, as amended. Same meaning as a Presidential Disaster Declaration.

Federal Emergency Management Agency (FEMA)

A federal agency created in 1979 to provide a single point of accountability for all federal activities related to hazard mitigation, preparedness, response, and recovery.

Flood

A general and temporary condition of partial or complete inundation of water over normally dry land areas from (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, or (3) mudflows or the sudden collapse of shoreline land.

Flood Disaster Assistance

Flood disaster assistance includes development of comprehensive preparedness and recovery plans, program capabilities, and organization of Federal agencies and of State and local governments to mitigate the adverse effects of disastrous floods. It may include maximum hazard reduction, avoidance, and mitigation measures, as well policies, procedures, and eligibility criteria for Federal grant or loan assistance to State and local governments, private organizations, or individuals as the result of the major disaster.

Flood Elevation

Elevation of the water surface above an establish datum (reference mark), e.g. National Geodetic Vertical Datum of 1929, North American Datum of 1988, or Mean Sea Level.

Flood Hazard

Flood Hazard is the potential for inundation and involves the risk of life, health, property, and natural value. Two reference bases are commonly used: (1) For most situations, the Base Flood is that flood which has a one-percent chance of being exceeded in any given year (also known as the 100-year flood); (2) for critical actions, an activity for which a one-percent chance of flooding would be too great, at a minimum the base flood is that flood which has a 0.2 percent chance of being exceeded in any given year (also known as the 500-year flood).

Flood Insurance Rate Map (FIRM)

Flood Insurance Rate Map (FIRM) means an official map of a community, on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.

Flood Insurance Study (FIS)

Flood Insurance Study or Flood Elevation Study means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluations and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

Floodplain

A "floodplain" is the lowland adjacent to a river, lake, or ocean. Floodplains are designated by the frequency of the flood that is large enough to cover them. For example, the 10-year flood will cover the 10-year floodplain. The 100-year floodplain by the 100-year flood.

Floodplain Management

The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

Floodplain Management Regulations

Floodplain Management Regulations means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof,

which provide standards for the purpose of flood damage prevention and reduction.

Flood Zones

Zones on the Flood Insurance Rate Map (FIRM) in which a Flood Insurance Study has established the risk premium insurance rates.

Flood Zone Symbols

A - Area of special flood hazard without water surface elevations determined.
A1-30 - AE Area of special flood hazard with water surface elevations determined.
AO - Area of special flood hazard having shallow water depths and/or unpredictable flow paths between one and three feet.
A-99 - Area of special flood hazard where enough progress has been made on a protective system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes.
AH - Area of special flood hazard having shallow water depths and/or unpredictable flow paths between one and three feet and with water surface elevations determined.
B - X Area of moderate flood hazard.
C - X Area of minimal hazard.
D - Area of undetermined but possible flood hazard.

Geographic Information System (GIS)

A computer software application that relates physical features of the earth to a database that can be used for mapping and analysis.

Governing Body

The legislative body of a City that is the assembly of a borough or the council of a city.

Hazard

A source of potential danger or adverse condition. Hazards in the context of this plan will include naturally occurring events such as floods, earthquakes, tsunami, coastal storms, landslides, and wildfires that strike populated areas. A natural event is a hazard when it has the potential to harm people or property.

Hazard Event

A specific occurrence of a particular type of hazard.

Hazard Identification

The process of identifying hazards that threaten an area.

Hazard Mitigation

Any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards. (44 CFR Subpart M 206.401)

Hazard Mitigation Grant Program (HMGP)

The program authorized under section 404 of the Stafford Act, which may provide funding for mitigation measures identified through the evaluation of natural hazards conducted under §322 of the Disaster Mitigation Act 2000.

Hazard Profile

A description of the physical characteristics of hazards and a determination of various descriptors including magnitude, duration, frequency, probability, and extent. In most cases, a community can most easily use these descriptors when they are recorded and displayed as maps.

Hazard and Vulnerability Analysis

The identification and evaluation of all the hazards that potentially threaten a jurisdiction and analyzing them in the context of the jurisdiction to determine the degree of threat that is posed by each.

Mitigate

To cause something to become less harsh or hostile, to make less severe or painful.

Mitigation Plan

A systematic evaluation of the nature and extent of vulnerability to the effects of natural hazards typically present in the community and includes a description of actions to minimize future vulnerability to hazards.

National Flood Insurance Program (NFIP)

The Federal program, created by an act of Congress in Program (NFIP) 1968 that makes flood insurance available in communities that enact satisfactory floodplain management regulations.

One Hundred (100)-Year

The flood elevation that has a one-percent chance of occurring in any given year. It is also known as the Base Flood.

Planning

The act or process of making or carrying out plans; the establishment of goals, policies, and procedures for a social or economic unit.

Repetitive Loss Property

A property that is currently insured for which two or more National Flood Insurance Program losses (occurring more than ten days apart) of at least $1000 each have been paid within any 10-year period since 1978.

Risk

The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage above a particular threshold due to a specific type of hazard event. It can also be expressed in terms of potential monetary losses associated with the intensity of the hazard.

Riverine

Relating to, formed by, or resembling rivers (including tributaries), streams, creeks, brooks, etc.

Riverine Flooding

Flooding related to or caused by a river, stream, or tributary overflowing its banks due to excessive rainfall, snowmelt or ice.

Runoff

That portion of precipitation that is not intercepted by vegetation, absorbed by land surface, or evaporated, and thus flows overland into a depression, stream, lake, or ocean (runoff, called immediate subsurface runoff, also takes place in the upper layers of soil).

Seiche

An oscillating wave (also referred to as a seismic sea wave) in a partially or fully enclosed body of water. May be initiated by landslides, undersea landslides, long period seismic waves, wind and water waves, or a tsunami.

Seismicity

Describes the likelihood of an area being subject to earthquakes.

State Disaster Declaration

A disaster emergency shall be declared by executive order or proclamation of the Governor upon finding that a disaster has occurred or that the occurrence or the threat of a disaster is imminent. The state of disaster emergency shall continue until the governor finds that the threat or danger has passed or that the disaster has been dealt with to the extent that emergency conditions no longer exist and terminates the state of disaster emergency by executive order or proclamation.

Along with other provisions, this declaration allows the governor to utilize all available resources of the State as reasonably necessary, direct and compel the evacuation of all or part of the population from any stricken or threatened area if necessary, prescribe routes, modes of transportation and destinations in connection with evacuation and control ingress and egress to and from disaster areas. It is required before a Presidential Disaster Declaration can be requested.

Topography

The contour of the land surface. The technique of graphically representing the exact physical features of a place or region on a map.

Tsunami

A sea wave produced by submarine earth movement or volcanic eruption with a sudden rise or fall of a section of the earth's crust under or near the ocean. A seismic disturbance or landslide can displace the water column, creating a rise or fall in the level of the ocean above. This rise or fall in sea level is the initial formation of a tsunami wave.

Vulnerability

Describes how exposed or susceptible to damage an asset it. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. The vulnerability of one element of the community is often related to the vulnerability of another. For example, many businesses depend on uninterrupted electrical power – if an electrical substation is flooded, it will affect not only the substation itself, but a number of businesses as well. Other, indirect effects can be much more widespread and damaging than direct ones.

Vulnerability Assessment

The extent of injury and damage that may result from hazard event of a given intensity in a given area. The vulnerability assessment should address impacts of hazard events on the existing and future built environment.

Watercourse

A natural or artificial channel in which a flow of water occurs either continually or intermittently.

Watershed

An area that drains to a single point. In a natural basin, this is the area contributing flow to a given place or stream.

Appendix A: Public Involvement

CITY OF CRAIG
ALASKA

November 21, 2017

Brent Nichols, CFM
State of Alaska
DMVA DHS&EM
P.O. Box 5750
Joint Base Elmendorf-Richardson, Alaska 99505-5750

Mr. Nichols:

This letter serves as the City of Craig's Letter of Commitment to support DMVA DHS&EM and LeMay Engineering & Consulting, Inc. in their Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation (PDM) planning grant to update the 2009 hazard mitigation plan for the City of Craig. The end goal of this grant is a State- and FEMA- approved hazard mitigation plan that the City of Craig will adopt.

Sincerely,

Timothy O'Connor
Mayor

(907) 826-3275 • Fax (907)826-3278 • www.craigak.com • PO Box 725, Craig, Alaska 99921

City of Craig Hazard Mitigation Plan Committee Introductory Meeting

November 21, 2017

10 AM at City Office

Name	Organization	Contact Information (phone or email)
Patrick M. LeMay, PE	LeMay Engineering & Consulting, Inc	Patrick.LeMay@LeMayengineering.com
Jon Bolling	City of Craig	826-3275
David Nelson	City of Craig	826-3405
HANS HJORT	City of Craig Harbor Dept.	401-0995
RJ Ehy	Craig Police Dept	401-0252 / 826-3330
Brian Templin	CITY OF CRAIG. PLANNING DEPT.	826-3275

Hazard Mitigation Plan Update for Craig, Alaska

Newsletter #1: November 2017

The State of Alaska, Department of Military and Veterans Affairs, Division of Homeland Security and Emergency Management (DHS&EM) was awarded a Pre-Disaster Mitigation Program grant from the Federal Emergency Management Agency (FEMA) to update the 2009 hazard mitigation plan (HMP) for the City of Craig. This plan will assist the City as a valuable resource tool in making decisions. Additionally, communities must have a State- and FEMA-approved and community-adopted HMP plan to receive FEMA pre- and post- disaster grants.

LeMay Engineering & Consulting, Inc. was contracted to assist Craig with preparing a 2017 HMP update. The HMP will identify all applicable natural hazards. The plan will identify the people and facilities potentially at risk and ways to mitigate damage from future hazard impacts.

Join the planning team and offer your advice: Any interested community member may join the planning team. To join, call or send Jennifer LeMay an email at jlemay@lemayengineering.com. The purpose of this newsletter is to introduce this project and encourage public involvement during this process. The goal is to receive comments, identify key issues or concerns, and improve mitigation ideas.

Attend the November 21, 2017, City Council Meeting at 7 pm at Council Chambers: The agenda will be a summary of the hazard mitigation plan process by Patrick LeMay. You're invited to provide input to the plan. Specifically, we'll be discussing which of the following hazards are realistic for Craig: earthquake, tsunami, flood/erosion, ground failure/avalanche, severe weather, wildland fire, and climate change? Also, what facilities are critical to your community?

For more information, contact:
Brian Templin, Craig City Planner (907) 826-3275
Patrick LeMay, PE, Planner (907) 250-9038
Jennifer LeMay, PE, PMP, Lead Planner (907) 350-6061
Brent Nichols, DMVA, DHS&EM Project Manager (907) 428-7085

City of Craig Hazard Mitigation Plan Committee Introductory Meeting

November 21, 2017

7 pm City Council Meeting at Council Chambers

Name	Organization	Contact Information (phone or email)
Patrick M. LeMay, PE	LeMay Engineering & Consulting, Inc.	patrick.lemay@lemayengineering.com
Brian Templin	CITY OF CRAIG PLANNING DEPT.	planner@craigak.com
Kevin McDonald	City of Craig Planning Commission	907-826-5750
Millie Schoonover	Planning Commission	907-401-8461
Sharilyn Zellhuber	Planning Commission	mszell@hotmail.com
Barbara Stanley	Planning Commission	907 826-2428
John Moots	Planning Commission	907-826-2327

CITY OF CRAIG
PLANNING COMMISSION AGENDA

Meeting of November 21, 2017
7:00 p.m., Craig City Council Chambers

Roll Call
Sharilyn Zellhuber (chair), John Moots, Kevin McDonald, Barbara Stanley, Millie Schoonover

Approval of Minutes
1. Approval of minutes of July 27, 2017
2. Approval of minutes of August 10, 2017

Public Comment
1. Non-Agenda Items

Public Hearing and New Business
1. Craig Multi Hazard Mitigation Plan Kickoff

Old Business
1. Craig Comprehensive Plan Update – Plan Review

Adjourn

CITY OF CRAIG
MEMORANDUM

To: Craig Planning Commission
From: Brian Templin, City Planner
Date: November 17, 2017
RE: Craig Multi-Hazard Mitigation Plan

In 2009 the State of Alaska contracted with Bechtol Planning to write a hazard mitigation plan for Craig. This plan is intended to identify potential hazards and projects to mitigate damage to property and loss of life. The planning commission conducted the kickoff meeting and the public hearing for the plan in 2009.

FEMA requires that these plans are updated every five years. This year the state has contracted with Lemay Engineering to write the plan update. I have been working with department heads in preparation. I have a meeting scheduled with department heads and the contractor at 10 am on November 21st ahead of the planning commission meeting that night.

At the meeting on November 21st Jennifer Lemay will lay out the process to the planning commission and take any public comments on the issue. It is her intent to draft the update to the plan based on input from staff, the planning commission, the public, and myself. Jennifer intends to bring a draft plan back to the planning commission for a public hearing and to kickoff the public review period in January 2018.

I sent out a copy of the current plan by email to the commission last week. If you need another copy or would like a printed copy please let me know.

I do not expect any formal action by the commission on this issue at the November 21st meeting.

Hazard Mitigation Planning Process

Updates to existing plans

Plans must be updated every five years and approved by DHS&EM and FEMA and then adopted by the community by resolution for the community to remain eligible for FEMA grant funding

This is a public process. Everyone who wants to be involved will be given the opportunity to be involved in this process. Send Jennifer LeMay, PE, PMP an email if you'd like more information at jlemay@lemayengineering.com or call her at (907) 350-6061.

We welcome public input and will have a public comment hearing at a public meeting for you to provide input on the plan.

Which hazards are applicable for your community?

- Flood
- Erosion
- Wildland Fire
- Tsunami/Seiche
- Earthquake
- Volcano
- Avalanche
- Ground Failure/Landslide
- Permafrost Degradation
- Severe Weather
- Climate Change

We're interested in information related to:

- hazard identification,
- profiles,
- previous occurrences,
- probability of occurrences, and
- typical recurrence intervals

for each potential hazard.

Plan Process

- Today's introductory meeting
- Gathering of data
- Draft Plan available for public comment (December is our goal month)
- Public hearing for Draft Plan (public comment period)
- State/FEMA review and pre-approval
- Newsletter announcing Final Plan (the public may still comment)
- City and/or Tribal adoption
- Final Approval from State/FEMA (prior to April 23, 2018).

After Plan is completed, approved, and adopted, your community will be eligible to apply for mitigation project funds from DHS&EM and FEMA for five years until the plan requires another update.

Contacts:
Patrick LeMay, PE, LeMay Engineering & Consulting, Inc. Planner (907) 250-9038
Jennifer LeMay, PE, PMP LeMay Engineering & Consulting, Inc. Planner (907) 350-6061
Brent Nichols, CFM, State of Alaska DHS&EM Hazard Mitigation Officer (907) 428-7085

Patrick M. LeMay, P.E.
President
4272 Chelsea Way
Anchorage, AK 99504
(907) 250-9038
patrick.lemay@lemayengineering.com

November 22, 2017

Brent A. Nichols, EMSII, CFM
Emergency Management Specialist (EMS) II & Certified Floodplain Manager (CFM)
Department of Military and Veterans Affairs (DMVA)
Division of Homeland Security and Emergency Management (DHS&EM)
P.O. Box 5750
JBER, AK 99505-5750

Subject: **Hazard Mitigation Planning Process Trip Report**
City of Craig, Alaska

On November 21, 2017, Patrick M. LeMay, PE of LeMay Engineering & Consulting, Inc. traveled to Craig, Alaska. The purpose of this trip was to conduct an introductory meeting, gather hazard data, review with community leaders the applicable hazards for the area, review potential mitigation strategies, and update the critical facilities within the community.

Craig City Planner Brian Templin provided a commitment letter signed by Mayor Timothy O'Connor verifying that the City of Craig will evaluate the 2017 draft hazard mitigation plan and present it to the City Council for adoption through the Craig Planning Commission. A public review meeting is scheduled in Craig for Wednesday night, February 7, 2017 for public comment on the Draft Hazard Mitigation Plan as part of the Planning Commission meeting. The Planning Commission will make the Draft Plan available for review 30 days prior to the public meeting. The Draft Plan will be posted on the City Web-site, and copies will be available in the Library, City Hall, Police Department, Fire Department, Planning Department, and Public Works Department.

Two meetings occurred during the site visit. A City of Craig Hazard Mitigation Plan Committee Introductory Meeting with city employees, from 10 AM to 1:30 PM and included:

Patrick M. LeMay, PE	LeMay Engineering & Consulting, Inc.
Jon Bolling	Craig City Administrator
David Nelson	Public Works Department
RJ Ely	Chief of Police
Hans Hjort	City of Craig, Harbormaster
Brain Templin	City of Craig Planning Department

A City of Craig Mitigation Plan Committee Introductory Meeting with the Planning & Zoning Commission (Public) from 7 PM to 8:30 PM and included:

Patrick M. LeMay, PE	LeMay Engineering & Consulting, Inc.
Jon Bolling	Craig City Administrator

Brain Templin	City of Craig Planning Department
Kevin McDonald	Planning and Zoning Commission
Millie Schooms	Planning and Zoning Commission
Sharilyn Zellhuber, Chairman	Planning and Zoning Commission
Barbara Standley	Planning and Zoning Commission
John Moots	Planning and Zoning Commission

Both meetings resulted in valuable information to update the City of Craig Hazard Mitigation Plan to include local climate change issues and five new mitigation action strategies.

If you have any questions, please do not hesitate to call me at (907) 250-9038.

11/22/17

Patrick M. LeMay, P.E./Date
LeMay Engineering & Consulting, Inc.

Hazard Mitigation Plan Update for Craig, Alaska

Newsletter #2: January 5, 2018

Photo Credit: Department of Commerce, Community and Economic Development; Division of Community and Regional Affairs' Community Photo Library.

You're Invited to Comment on the Draft Update to the Hazard Mitigation Plan for the City of Craig: The goal of this newsletter is to announce the availability of the Draft Plan Update and invite you to provide comments, identify key issues or concerns, and improve mitigation ideas. This plan has been posted at City Hall and on the City website for your review. The Draft Plan Update can also be emailed to you by request. Requests for plans as well as comments can be provided verbally to Jennifer LeMay at (907) 350-6061 or emailed to jlemay@lemayengineering.com.

Attend the February 7, 2018, Planning and Zoning Commission Meeting at 7 pm at Council Chambers. A Public Hearing on the Draft Plan Update will be part of the agenda.

For more information, contact:
Brian Templin, Craig City Planner (907) 826-3275
Jennifer LeMay, PE, PMP, Lead Planner (907) 350-6061
Brent Nichols, DMVA, DHS&EM Project Manager (907) 428-7085

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JANUARY 31, 2018 FREE - TAKE ONE VOLUME 4, NUMBER 3

Tsunami alert response

By CATHY BOLLING
Island Post Staff Writer

Time flies when you're having fun.

And, when you're not waiting for a tsunami.

It has been five years since the City of Craig has had to respond to a tsunami warning generated by an earthquake. In Dec. 2012 and Jan. 2013 the city had events that tested its emergency preparedness.

"I think the response went really well – public notice systems worked well," said Plan Sections Chief and Craig City Planner Brian Templin, following the Jan. 22, 2018 early morning earthquake in the Gulf of Alaska that triggered a tsunami warning. It was the city's first opportunity to really test its updated response plan. While things went well, it was also a reminder that response plans need regular updates.

Since 2013, the city installed two loudspeaker/sirens – one near the youth center, the other near the pool. The speakers were placed at the highest parts of town, in the hope of being heard by the most residents, stretching north to False Island, south to part of Port Saint Nicholas, east to Tanner Crab and the high school.

Still, there are pockets in town, including lower elevations, where the direction of the sound passes over, said Templin.

Now, the city has another mass notification tool, Omnilert. It was first used solely by EMS and fire squads, but now notifies the public. Omnilert allows subscribers to receive messages by phone, text, email or a combination. Many Craig residents have signed up and have received notices not only about last week's tsunami alert, but also about water main breaks and other items

Continued on next page

Tsunami *Continued from page 1*

of community-wide interest.

"A few years ago, there were not a lot of options for (mass) notifying the public, other than going door-to-door and using loudspeakers," Templin said.

Now the city can provide information through Facebook, Twitter and Omnilert. When the 7.9 earthquake hit 174 miles south of Kodiak at around 12:30 a.m., Craig was among the communities the National Weather Service predicted could be impacted. Craig's emergency operations team gathered at the Craig Police Department. The team includes the city administrator, fire and police chiefs, EMS coordinator, harbormaster, public works director, Templin, and extra dispatchers. City Clerk Kassi Mackie aided the public information effort from city hall.

Just after the quake struck, many residents received a tsunami warning message on their cell phones. This was generated by the National Weather Service and transmitted through certain cell carriers, like AT&T, which have subscribed to an emergency notification service with the NWS, said Templin.

That message went out to every coastal area in Alaska, he said.

In Craig, the group decided to monitor what was happening in the communities that were predicted to be hit before Craig, before sounding the local siren.

"We knew there were four-five communities that would see water before we did," Templin said.

The city was also monitoring information from the National Oceanic and Atmospheric Administration transmitted by buoys it has placed in the Gulf of Alaska to monitor water movement, he said.

"We chose to monitor what was going on and sound the siren later, which gave us more time to put information out to the public," Templin said.

The quake hit at 12:30 a.m. and predictions were for a possible tsunami to reach Craig at 3 a.m..

"We knew we had time," Templin said.

"We didn't want people to panic too early, but some people have said they would have wanted more time."

The city's first Omnilert message about the tsunami and voluntary evacuations was at 1:52 a.m. When it got to their "target time" and they weren't completely certain there would be no danger, the team erred on the side of caution and sounded the alarm, urging people to evacuate to higher ground, he said. That was about 2:28 a.m.

The Omnilert message read "Craig has sounded Tsunami alarm. Tsunami warning still in effect. Recommend moving to higher ground."

Even before then, evacuation sites – Craig Recreation Center, Craig High School and Craig Elementary School/Aquatic Center – were open and ready.

Between the first warning at 1:52 a.m. and the final tsunami downgrade at 3:33 a.m., the Omnilert system sent out nine messages, including when parking lots at certain evacuation sites were full.

Continued on page 14

Prince of Wales
ISLAND POST

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The Voyageur

Inventory Close-Out
20% Off Storewide
Tues. 2/6 thru
Sat. 2/10
(Food & Drink NOT included)

From Gail Slentz, Owner of The Voyageur

As many of you may have already heard, I've sold my commercial building at 801 Water St. in Craig where The Voyageur now resides. The new owners are planning to bring a new and exciting business venture to our community and The Voyageur will not continue. As a result, I will be closing out the inventory and many of the fixtures, appliances and supplies of The Voyageur between February 1st and the end of March. I encourage you to follow our Facebook page or make sure we have your email address so that you can stay informed on discounts that will quickly and progressively increase.

It has been a great pleasure to come back and be an integral part of our Prince of Wales Island community these last two years. I am most grateful for your patronage and your friendship.
Thanks for shopping small and local!!

As for me...I will be transitioning into offering bookkeeping and accounting services on a more full-time basis. Please think of me if you are in need of these services. Resume and references are available

CITY OF CRAIG
PLANNING COMMISSION AGENDA

Meeting of February 7, 2018
7:00 p.m., Craig City Council Chambers

Roll Call
Sharilyn Zellhuber (chair), John Moots, Kevin McDonald, Barbara Stanley, Millie Schoonover

Approval of Minutes
1. Approval of minutes of January 11, 2017 18

Public Comment
1. Non-Agenda Items

Public Hearing and New Business
1. CUP 180207 – Resolution 577-18-PC, Operating a Retail Marijuana Establishment in a Commercial Zone, Jaquelin Weatherbee

Old Business
1. Craig Hazard Mitigation Plan Update

Adjourn

City of Craig Hazard Mitigation Plan Update Public Hearing

February 7, 2018

7 PM Planning & Zoning Commission Meeting at Council Chambers

Name	Organization	Contact Information (phone or email)
Arnie Bossard	Ocean Air Contracting	OceanAirAK@gmail.com
Jagie Wetherbee	Wetherbee's Lodge; Fishing Charter	jagie_w@yahoo.com
Hannah Bazinet	CCSD	hannajobazinet@gmail.com
Barbara Stanley	Craig Planning Commission	rock17@aptalaska.net
Sharilyn Zellhuber	Craig Planning Commission	mszellc@hotmail.com
Millie Schoonover	City P & Z	amschoonover@yahoo.com
Kerla McDonall	Craig Planning Commission	Kerla@wholetail.ak.com
Brian Templin	City Planner	planner@craigak.com
JENNIFER LEMAY	LEMAY ENGINEERING + CONSULTING	jlemay@lemayengineering.com

Craig Hazard Mitigation Plan

Prepared by LeMay Engineering & Consulting, Inc.
for the Community of Craig

Craig Multi-Hazard Mitigation Plan (HMP) Update

- The City developed a HMP in 2009; the HMP expired in 2014.
- FEMA requires HMPs to be updated every 5 years.
- The State of Alaska, Department of Military and Veterans Affairs, Division of Homeland Security and Emergency Management (DHS&EM) was awarded a Pre-Disaster Mitigation Program grant from FEMA to update the Craig HMP.
- LeMay Engineering & Consulting, Inc. was contracted to assist the City with updating the HMP in 2017.

What is a Hazard Mitigation Plan (HMP)?

HMPs are community plans which include:

- 1. Profiles of natural hazards that affect a community.
- 2. An assessment of the community's vulnerability to hazards.
- 3. Mitigation actions to reduce the community's vulnerability to hazards.

Natural Hazard Profiles

Hazard profiles detail the:

- Nature of hazard;
- History of hazard's impacts on community;
- Location (proximity to community);
- Extent (magnitude and severity);
- Impact on community; and
- Probability of future events.

Natural Hazards affecting Craig

The Craig HMP Update identifies and profiles the following hazards:

- Tsunami
- Ground Failure
- Earthquake
- Severe Weather
- Wildland Fire
- Climate Change

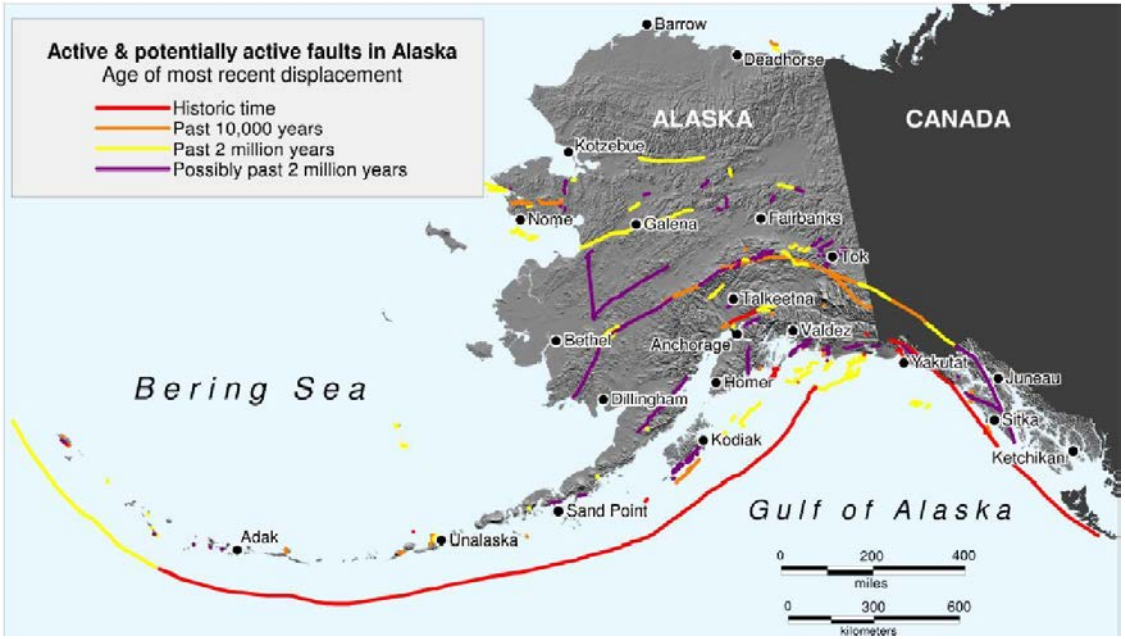
Tsunami – Hazard Profile Overview

- The DNR's DGGS completed a study; the results and a tsunami inundation map will be published in 2018.
- Craig has not experienced a tsunami.
- Tsunamis are considered "Highly Likely" with 1 in 1 year's chance of occurring.

Ground Failure – Hazard Profile Overview

- In 2003, there was a series of significant slides in the Port St. Nicholas area of Craig. No lives or property were lost, but roads and utilities were cut off from the water treatment plant for several days while debris was removed and utility lines were repaired.
- Ground failure is considered “Highly Likely” with 1 in 1 year’s chance of occurring.

Earthquake – Hazard Profile Overview



- The last major earthquake (Magnitude 7.5) that affected Craig occurred within 113 km. Things fell off bookshelves, but no damage was reported.
- Earthquakes are considered "Likely" with a 1 in 3 year's chance of occurring.

Severe Weather – Hazard Profile Overview

- Severe weather for Craig includes:
  - High Winds
  - Heavy Snow
- Severe weather has a “likely” probability of occurring within the next 3 years with a “critical” extent of impacts.

Wildland Fire – Hazard Profile Overview

- From 1939 to 2017, there have been two wildland fires with estimated losses greater than 5 acres occurring within 10 miles of the City.
- The probability of future wildland fires is “likely,” with a “limited” extent of impacts.

Climate Change – Hazard Profile Overview

- Various events have occurred in Craig that point to climate change. These events, per Craig residents, are:

- Fishermen are seeing warm water fish;
- No changing climate patterns;
- Residents are seeing Sturling's black bird with yellow beak which has not been seen in the area before;
- Residents are seeing doves in Craig and as far north as Juneau and Sitka;
- Experiencing dryer winters; and
- Yellow cedar trees are dying due to lack of winter snowpack, as reported by foresters; yellow cedars need the snow insulation to protect the root system from freezing.

Mitigation Actions

A mitigation action is a planned activity that will reduce the community's vulnerability to natural hazards. Mitigation actions are broadly categorized as:

- Prevention;
- Property Protection;
- Public Education and Awareness;
- Natural Resource Protection;
- Emergency Services; and
- Structural Projects.

Mitigation Action Plan

Mitigation Action Projects for Tsunamis:

- Inundation Mapping will be completed in 2018.
- Update of Craig Emergency Response Plan to occur in 2018.
- The City is developing evacuation maps/plans and will finalize them after the Inundation Mapping is complete.
- Continue Emergency Operations Exercises.

Mitigation Action Plan (Continued)

Mitigation Action Projects for Ground Failure:

Mitigation Actions
1. EPA Clean Water Discharge Permit conditions would not be met if power was out for 24 hours at the wastewater treatment plant. For 24 hours, raw sewage would be discharged to the ocean. See earthquake projects for a project to mitigate this hazard.
2. Have mapped landslide zones been created? If not, this should be done.

Mitigation Action Plan (Continued)

Mitigation Action Projects for Earthquakes:

Mitigation Actions
1. Perform an engineering assessment of the earthquake vulnerability of critical facilities.
2. Identify buildings and facilities that must be able to remain operable during and following an earthquake event.
3. Contract a structural engineering firm to assess the identified buildings and facilities.
4. Three road bridges with water lines connected under them and one additional water line bridge connect the water source to the community and are vulnerable to earthquakes. Conduct a structural seismic assessment to determine if, in a major earthquake, the only community water main would be protected. Based on the engineering assessment, add seismic retrofits to the bridges.

Mitigation Action Plan (Continued)

Mitigation Action Projects for Earthquakes continued:

Mitigation Actions
5. With only one water storage tank (800,000 gallons) located south of the community, 80% of the population would lose drinking water if the water main was damaged at the two earthen fill locations. To mitigate this issue, construct a storage tank within the west area of the community which would supply water to 35%, and construct a storage tank within the east area of the community which would supply water to an additional 45%.
6. The Craig High School is the community's primary shelter and is vulnerable to earthquakes. Install a water storage tank to serve the northern area of the community.
7. A secondary water source is needed in the event that the primary treatment plant or the dam at the water source is damaged. The prime location would be the old spring which is a subterranean water source that has less stringent treatment requirements before public use.

Mitigation Action Plan (Continued)

Mitigation Action Projects for Earthquakes continued:

Mitigation Actions
8. The wastewater treatment plant and four community shelters need emergency power backup. This project has three components.
9. From an emergency response perspective, the Klawock Airport runway is 5,000-feet long and 100-feet wide and is capable of having a Hercules C-130 aircraft land to delivery relief supplies. However, there is only 2-inches of asphalt on the airport apron. The apron cannot handle the load. This is the only land-based airport on Prince of Wales Island. Add additional asphalt to the apron to sustain the load of a Hercules C-130 aircraft in the event of an emergency.

Mitigation Action Plan (Continued)

Mitigation Action Projects for Severe Weather:

Mitigation Actions
1. Encourage weather-resistant building construction materials and practices.
2. Along St Nicholas Road, culverts are needed. Some culverts are undersized, and some locations do not have culverts. An engineer should conduct a hydrology study and install 10-20 under road culverts accordingly to prevent over road water flow during rain events.

Mitigation Action Plan (Continued)

Mitigation Actions for Wildland Fires:

Mitigation Actions
1. Promote Fire Wise building design, siting, and materials for construction.
2. Enhance public awareness of potential risk to life and personal property. Encourage mitigation measures in the immediate vicinity of their property.

Take Action

- Remember the HMP is a plan. It is ultimately the responsibility of the community to initiate projects and seek out funding.
- The HMP should be also be referenced and incorporated into other community planning mechanisms to create a cohesive strategy for future actions.

Keeping the HMP Current

- Perform annual reviews using the review sheet in Appendix E of plan.
- Gather public information about hazards using survey in Appendix E of plan.
- Initiate HMP update process before 2023.

Steps to 2018 HMP Update Completion

- February 7: Planning and Zoning Commission Meeting
  - Provide overview of Planning Team's progress in updating 2018 Craig HMP
  - Announce availability of plan for review (January 5)
    - Comment on plan
      - 1.Commenting at February 7 meeting
      - 2. Email your comments to jlemay@lemayengineering.com
      - 3. Call Jennifer LeMay with your comments-907-350-6061
- February 12 – 16: State of Alaska reviews 2018 Craig HMP Update
- February 17 – April 17: FEMA reviews 2018 Craig HMP Update
- May – Craig City Council adopts plan by resolution

Jennifer L. LeMay, PE, PMP
Vice President
4272 Chelsea Way
Anchorage, AK 99504
(907) 350-6061
jlemay@lemayengineering.com

February 9, 2017

Brent A. Nichols, EMSII, CFM
Emergency Management Specialist II & Certified Floodplain Manager
Department of Military and Veterans Affairs
Division of Homeland Security and Emergency Management
P.O. Box 5750
JBER, AK 99505-5750

Subject: **Hazard Mitigation Plan Public Hearing Trip Report**
City of Craig, Alaska

On February 7, 2018, Jennifer LeMay, PE, PMP of LeMay Engineering & Consulting, Inc. traveled to Craig, Alaska. The purpose of this trip was to present a summary of the Draft Hazard Mitigation Plan and receive public comments.

Notice of the Availability of the Draft HMP Update and Public Meeting was advertised on January 5 at the public bulletin boards at the City office. The Draft HMP Update was also posted on the City Web-site, and copies were made available at the Library, City Hall, Police Department, Fire Department, Planning Department, and Public Works Department.

The Planning and Zoning Commission Meeting was held at 7 pm at the City Office. Brian Templin, Craig City Planner, sent a letter dated February 9 of all comments that he had prepared as well as comments made by the Planning Commission and the public at the February 7 hearing. These comments will be incorporated into the Draft HMP Update before submittal to the State.

If you have any questions, please do not hesitate to call me at (907) 350-6061.

Jennifer L. LeMay

2/9/18
Jennifer L. LeMay, PE, PMP/Date
LeMay Engineering & Consulting, Inc.

February 9, 2018

LeMay Engineering and Consulting Inc.
Attn: Jennifer LeMay
4272 Chelsea Way
Anchorage, AK 99504
Email: jlemay@lemayengineering.com

Dear Jennifer,
Thank you for your work on the Craig Multi Hazard Mitigation Plan update and for your attendance at the February 7, 2018 Craig Planning Commission meeting to hear public comments on the draft of that plan.

As I indicated at that meeting I wanted to send you all of the comments that I had prepared, as well as the comments made by the planning commission and public at that public hearing. All collected comments are shown below:

1. Page ii– Replace Greg Dahl with Don Pierce.
2. Page ii – Sharilyn Zellhuber should be listed as chairman, not John Moots.
3. Page ii – RJ Ehy should be RJ Ely
4. Page viii – Change Be it further should be changed to read "Be it further resolved, that the Craig Planning Commission will submit the draft Multi-Hazard Mitigation Plan to the Craig City Council for final adoption.
5. Page 2 – Planning Team:
    a. Change Jon Boiling to Jon Bolling
    b. Add "City Administrator" as title for Jon Bolling
    c. Add "Craig Public Works" as title for Dave Nelson
    d. Change Hans Huort to Hans Hjort
    e. Change title for Sharilyn to "Chair"
    f. Delete Sharilyn Zellhuber's email address
    g. Change title for John Moots to "Member"
6. Page 3 – *Emergency Response Plan*, Replace "Southern Southeast Local Emergency Planning Committee" with "City of Craig"
7. Page 6 – Table 2, Community Economic Development Strategy/Overall Economic Development Plan next review should be changed to read 2018/2019
8. Page 8, last paragraph – change to read "The City noted that they have the best participation rate on gaining feedback from their residents through electronic surveys with notices included in water/sewer bills that are mailed to residents. Once a year in

March, a notice of a natural hazard survey will be included in the sewer/water bill. An electronic survey will be provided and the survey data will be compiled and included in the annual report, and considered during future plan updates. See Appendix E for survey.

9. Page 9, If 2017 population data is available before completion of the plan the updated data should be shown.
10. Page 10, delete (adminclerk@craigak.com) from City of Craig contact information.
11. Page 11, the number of vacant units seems very high compared to the vacancy rate. Please check those numbers. The current ALARI information for Craig shown on the Alaska Department of Labor, Research and Analysis site shows Census 2010 data for Craig that lists the 2010 homeowner vacancy rate at 1.3% and the 2010 rental vacancy rate at 6.9%. I see that the DCCED community database shows a vacancy rate of 12.3% (which aligns with your numbers) but I don't know where this data comes from, if it is Craig specific, and if it is correct. Please confirm the DCCED numbers that you are using or use the 2010 census data.
12. Page 11, the population chart shows "0" population for 1880 – 1910. I don't believe this is true. If no population data is available please remove these years from the chart.
13. Page 11, you show an unemployment rate of 8.9% for Craig from the 2013 Alaska All-Hazard Mitigation Plan. Please use primary unemployment data or quote where the Alaska plan draws the data from. Most unemployment data gathered between census years is likely data for the POW-Hyder Census Area, and not Craig specifically. If the number is drawn from the US Census then the number likely represents 2010 data, not 2013 data. The 2013 number is reported by the state as 11.9% and the 2016 number is reported as 11.7% (both for the POW-Hyder Census area). Please research to see how the State All-Hazard plan number specifically for Craig was generated and see if it should be replaced with other data. Also determine if the number used in the final draft of the HMP should be shown as the "Craig" rate or the "Prince of Wales – Hyder Census Area" unemployment rate.
14. Page 11, please add ", fish processors" after "buying station" in the last paragraph.
15. Page 12, paragraph 2, delete the last sentence. IFA no longer provides scheduled service to the north end.
16. Page 12, paragraph 5, please delete "Coffman Cove" from the first sentence.
17. Page 16, State Resources, second paragraph, while www.ak-prepared.com still works I think the more current url is www.ready.alaska.gov. Please replace.
18. Pages 17 – 19, I found several of the resources cited to be not currently available or broken links. Please double check all data on throughout the plan and confirm that links and listed resources are current and available.
19. Page 30, several facilities are mislabeled or misidentified. Please coordinate with City Planner to make corrections.
20. Page 33 Vulnerability, second paragraph, change second sentence to note that new public structures are built above the BFE.

21. Page 36, first paragraph, third sentence, change Cty to city
22. Page 37, second paragraph, Is the comment about 10-20' wave height correct? This number looks high and appears to discount the nature of even a 3-5 foot runup.
23. Page 43, the January 2018 event should be included in this discussion.
24. Page 44, Project T-5, please replace "Twitter feed" with "various social media outlets and emergency notification systems"
25. Page 48, Project GF-1, I don't agree with the 2017 update. I would likely say that "Plant back up generators were installed in 2005/2006 and are maintained by the City of Craig. This project is also tied to earthquake and high wind (severe weather) projects."
26. Page 51, second paragraph, second line, change Prince Wales to Prince of Wales
27. Page 55, third paragraph says that there was a quake on January 5, 2015, I think that this is referring to the January 5, 2013 quake.
28. Page 57, Project E-8, change Taylor to Tyler throughout the paragraph.
29. Page 77, Please spell out "Pre Disaster Mitigation" and Hazard Mitigation Grant Program" here, "Emergency Operations Plan" on page 80 and generally throughout the document spell out the first occurrence of acronyms where there is room.
30. Page 80, G/F-3 – landslide zones have not been mapped
31. Pages 80-86 (and throughout document), You use the leaders G/F and GF interchangeably to show Ground Fault strategies and projects – please use one or the other consistently.
32. Pages 93-96, show the acronyms after titles to make it easier for readers to connect full titles to acronyms (i.e. Geographic Information Systems (GIS).
33. Appendix E (survey), please fix page breaks so that categories, questions, response blocks, etc. are not inappropriately separated.
34. Appendix E, Page 5, replace "Nenana" with "Craig"

At the February 7th planning commission meeting the commission voted to approve staff to submit all comments to you for incorporation into the final draft and to forward the amended draft for review by the State of Alaska, FEMA. Once those reviews are complete the final plan will be submitted to the Craig City Council for adoption.

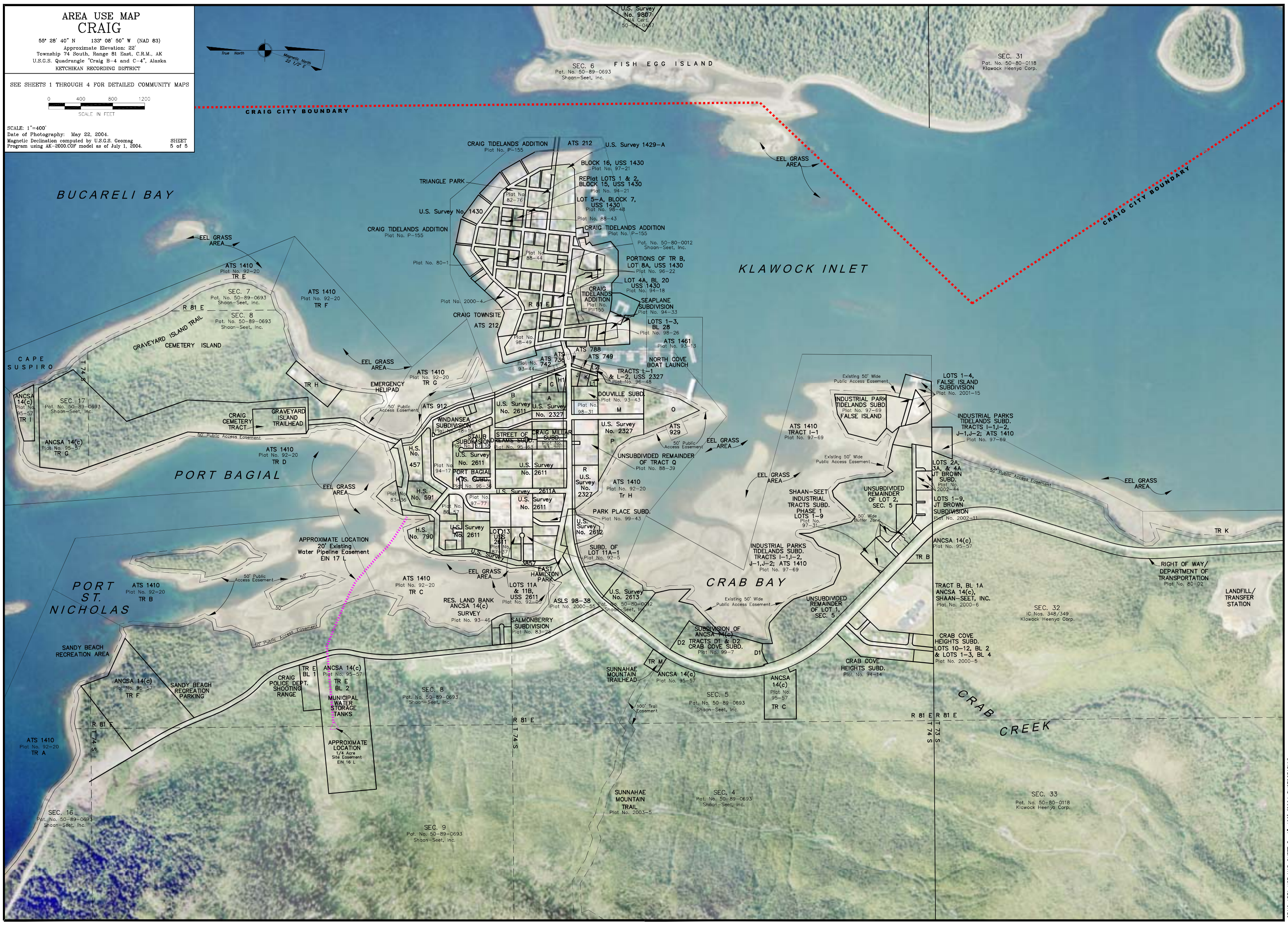
If you have any questions please feel free to call or email me.

Sincerely,

Brian Templin
Craig City Planner

Cc: Craig Planning Commission (email)
Brent Nichols, SOA/DMVA (email)

Appendix B: Area Use Map



CRAIG AREA USE MAP SHEET 5 1"=400' (2004 PHOTOGRAPHY)

Appendix C: FEMA Review Tool

APPENDIX A:
LOCAL MITIGATION PLAN REVIEW TOOL

The *Local Mitigation Plan Review Tool* demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The Regulation Checklist provides a summary of FEMA's evaluation of whether the Plan has addressed all requirements.
- The Plan Assessment identifies the plan's strengths as well as documents areas for future improvement.
- The Multi-jurisdiction Summary Sheet is an optional worksheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this *Local Mitigation Plan Review Guide* when completing the *Local Mitigation Plan Review Tool*.

Jurisdiction: Craig, Alaska (Region 10)	**Title of Plan:** City of Craig, Alaska Hazard Mitigation Plan Update	**Date of Plan:** February 11, 2018
Local Point of Contact: Brian Templin		**Address:** P.O. Box 725 Craig, AK 99921
Title: City Planner		
Agency: City of Craig		
Phone Number: (907) 826-3275		**E-Mail:** planner@craigak.com

State Reviewer: Mike Johnson	**Title:** Mitigation Planner	**Date:** March 1, 2018

FEMA Reviewer:	**Title:**	**Date:**
Date Received in FEMA Region ***(insert #)***		
Plan Not Approved		
Plan Approvable Pending Adoption		
Plan Approved		

SECTION 1:
REGULATION CHECKLIST

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)	**Location in Plan (section and/or page number)**	**Met**	**Not Met**
ELEMENT A. PLANNING PROCESS			
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	PDF 10-15, 110-150	X	
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	Plan will be uploaded to DHS&EM webpage for review after approval; PDF 14, 112, 120	X	
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	PDF 14, 110-150	X	
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	PDF 12-15	X	
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	PDF 17, 175-179	X	
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	PDF 15-17, 171-179	X	
ELEMENT A: REQUIRED REVISIONS			

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)	Location in Plan (section and/or page number)	Met	Not Met
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT			
B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	PDF 46-81	X	
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	PDF 51-52, 57, 63-65, 69-74, 78-79, 80-81	X	
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	PDF 41-43, 49-50, 56, 62, 69, 78, 80	X	
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	PDF 82	X	
ELEMENT B: REQUIRED REVISIONS			

ELEMENT C. MITIGATION STRATEGY			
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	PDF 8-9, 22-25	X	
C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	PDF 82	X	
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	PDF 83-94	X	
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	PDF 83-94, 94-99	X	
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	PDF 83-94, 94-99	X	
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	PDF 15, 171-179	X	

ELEMENT C: REQUIRED REVISIONS

1. REGULATION CHECKLIST **Regulation** (44 CFR 201.6 Local Mitigation Plans)	Location in Plan (section and/or page number)	Met	Not Met
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (applicable to plan updates only)			
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	PDF 44-45	X	
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	PDF 88-99	X	
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	PDF 88-99	X	
ELEMENT D: REQUIRED REVISIONS			
ELEMENT E. PLAN ADOPTION			
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	Joint Adoption Letter to be included on Page ix		X
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	N/A		
ELEMENT E: REQUIRED REVISIONS			
ELEMENT F. ADDITIONAL STATE REQUIREMENTS (OPTIONAL FOR STATE REVIEWERS ONLY; NOT TO BE COMPLETED BY FEMA)			
F1.			
F2.			
ELEMENT F: REQUIRED REVISIONS			

SECTION 2:
PLAN ASSESSMENT

INSTRUCTIONS: The purpose of the Plan Assessment is to offer the local community more comprehensive feedback to the community on the quality and utility of the plan in a narrative format. The audience for the Plan Assessment is not only the plan developer/local community planner, but also elected officials, local departments and agencies, and others involved in implementing the Local Mitigation Plan. The Plan Assessment must be completed by FEMA. The Assessment is an opportunity for FEMA to provide feedback and information to the community on: 1) suggested improvements to the Plan; 2) specific sections in the Plan where the community has gone above and beyond minimum requirements; 3) recommendations for plan implementation; and 4) ongoing partnership(s) and information on other FEMA programs, specifically RiskMAP and Hazard Mitigation Assistance programs. The Plan Assessment is divided into two sections:

1. Plan Strengths and Opportunities for Improvement
2. Resources for Implementing Your Approved Plan

Plan Strengths and Opportunities for Improvement is organized according to the plan Elements listed in the Regulation Checklist. Each Element includes a series of italicized bulleted items that are suggested topics for consideration while evaluating plans, but it is not intended to be a comprehensive list. FEMA Mitigation Planners are not required to answer each bullet item, and should use them as a guide to paraphrase their own written assessment (2-3 sentences) of each Element.

The Plan Assessment must not reiterate the required revisions from the Regulation Checklist or be regulatory in nature, and should be open-ended and to provide the community with suggestions for improvements or recommended revisions. The recommended revisions are suggestions for improvement and are not required to be made for the Plan to meet Federal regulatory requirements. The italicized text should be deleted once FEMA has added comments regarding strengths of the plan and potential improvements for future plan revisions. It is recommended that the Plan Assessment be a short synopsis of the overall strengths and weaknesses of the Plan (no longer than two pages), rather than a complete recap section by section.

Resources for Implementing Your Approved Plan provides a place for FEMA to offer information, data sources and general suggestions on the overall plan implementation and maintenance process. Information on other possible sources of assistance including, but not limited to, existing publications, grant funding or training opportunities, can be provided. States may add state and local resources, if available.

A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

Element A: Planning Process

Plan Strengths:

- Held two meetings for initial planning information (City office for city workers and Council meeting for city council)
- City Planner Bob Templin provided 34 comments to update the city plan. Shows the level of commitment he has for the plan.

Opportunities for Improvement:

Element B: Hazard Identification and Risk Assessment

Plan Strengths:

- **Identified a large amount of projects that would mitigate several different hazards and included them in the plan.**

Opportunities for Improvement:

- **All maps and figures need to have Craig represented. If the map does not specifically point out Craig – an addition needs to be overlaid that shows the city in relation to the map.**

Element C: Mitigation Strategy

Plan Strengths:

- **Completed all tsunami related mitigation tasks. (or have a projected time of completion in 2018)**

Opportunities for Improvement:

Element D: Plan Update, Evaluation, and Implementation (*Plan Updates Only*)

Plan Strengths:

Opportunities for Improvement:

B. Resources for Implementing Your Approved Plan

The **Region 10 Integrating Natural Hazard Mitigation into Comprehensive Planning** is a resource specific to Region 10 states and provides examples of how communities are integrating natural hazard mitigation strategies into comprehensive planning. You can find it in the FEMA Library at http://www.fema.gov/media-library/assets/documents/89725.

The **Integrating Hazard Mitigation Into Local Planning: Case Studies and Tools for Community Officials** resource provides practical guidance on how to incorporate risk reduction strategies into existing local plans, policies, codes, and programs that guide community development or redevelopment patterns. It includes recommended steps and tools to assist with local integration efforts, along with ideas for overcoming possible impediments, and presents a series of case studies to demonstrate successful integration in practice. You can find it in the FEMA Library at http://www.fema.gov/library/viewRecord.do?id=7130.

The **Mitigation Ideas: A Resource for Reducing Risk from Natural Hazards** resource presents ideas for how to mitigate the impacts of different natural hazards, from drought and sea level rise, to severe winter weather and wildfire. The document also includes ideas for actions that communities can take to reduce risk to multiple hazards, such as incorporating a hazard risk assessment into the local development review process. You can find it in the FEMA Library at http://www.fema.gov/library/viewRecord.do?id=6938.

The **Local Mitigation Planning Handbook** provides guidance to local governments on developing or updating hazard mitigation plans to meet and go above the requirements. You can find it in the FEMA Library at http://www.fema.gov/library/viewRecord.do?id=7209.

The **Integration Hazard Mitigation and Climate Adaptation Planning: Case Studies and Lessons Learned** resource is a 2014 ICLEI publication for San Diego with a clear methodology that could assist in next steps for integration impacts of climate change throughout mitigation actions. http://icleiusa.org/wp-content/uploads/2015/08/Integrating-Hazard-Mitigation-and-Climate-Adaptation-Planning.pdf

The **Local Mitigation Plan Review Guide and Tool** resource is available through FEMA's Library and should be referred to for the next plan update. http://www.fema.gov/library/viewRecord.do?id=4859

The **Tribal Multi-Hazard Mitigation Planning Guidance:** This resource is specific to tribal governments developing or updating tribal mitigation plans. It covers all aspects of tribal planning requirements and the steps to developing tribal mitigation plans. You can find the document in the FEMA Library at http://www.fema.gov/media-library/assets/documents/18355

Volcanic Eruption Mitigation Measures: For information on Mitigation Actions for Volcanic Eruptions that would satisfy the C4 requirement, please visit:

http://earthzine.org/2011/03/21/volcanic-crisis-management-and-mitigation-strategies-a-multi-risk-framework-case-study/ and http://www.gvess.org/publ.html.

The FEMA Region 10 **Risk Mapping, Analysis, and Planning program (Risk MAP)** releases a monthly newsletter that includes information about upcoming events and training opportunities, as well as hazard and risk related news from around the Region. Past newsletters can be viewed at http://www.starr-team.com/starr/RegionalWorkspaces/RegionX/Pages/default.aspx. If you would like to receive future newsletters, email rxnewsletter@starr-team.com and ask to be included.

The mitigation strategy may include eligible projects to be funded through FEMA's hazard mitigation grant programs (Pre-Disaster Mitigation, Hazard Mitigation Grant Program, Flood Mitigation Assistance). Contact your State Hazard Mitigation Officer, Brent Nichols at Brent.Nichols@alaska.gov, for more information.

Appendix D: Benefit-Cost Analysis Fact Sheet

Benefit-Cost Analysis Fact Sheet

Hazard mitigation projects are specifically aimed at reducing or eliminating future damages. Although hazard mitigation projects may sometimes be implemented in conjunction with the repair of damages from a declared disaster, the focus of hazard mitigation projects is on strengthening, elevating, relocating, or otherwise improving buildings, infrastructure, or other facilities to enhance their ability to withstand the damaging impacts of future disasters. In some cases, hazard mitigation projects may also include training or public-education programs if such programs can be demonstrated to reduce future expected damages.

A Benefit-Cost Analysis (BCA) provides an estimate of the "benefits" and "costs" of a proposed hazard mitigation project. The benefits considered are avoided future damages and losses that are expected to accrue as a result of the mitigation project. In other words, benefits are the reduction in expected future damages and losses (i.e., the difference in expected future damages before and after the mitigation project). The costs considered are those necessary to implement the specific mitigation project under evaluation. Costs are generally well determined for specific projects for which engineering design studies have been completed. Benefits, however, must be estimated probabilistically because they depend on the improved performance of the building or facility in future hazard events, the timing and severity of which must be estimated probabilistically.

All Benefit-Costs must be:

- Credible and well documented
- Prepared in accordance with accepted BCA practices
- Cost-effective (BCR $\geq$ 1.0)

General Data Requirements:

- All data entries (other than Federal Emergency Management Agency [FEMA] standard or default values) MUST be documented in the application.
- Data MUST be from a credible source.
- Provide complete copies of reports and engineering analyses.
- Detailed cost estimate.
- Identify the hazard (flood, wind, seismic, etc.).
- Discuss how the proposed measure will mitigate against future damages.
- Document the Project Useful Life.
- Document the proposed Level of Protection.
- The Very Limited Data (VLD) BCA module cannot be used to support cost-effectiveness (screening purposes only).
- Alternative BCA software MUST be approved in writing by FEMA HQ and the Region prior to submittal of the application.

Damage and Benefit Data

- Well documented for each damage event.
- Include estimated frequency and method of determination per damage event.
- Data used in place of FEMA standard or default values MUST be documented and justified.

- The Level of Protection MUST be documented and readily apparent.
- When using the Limited Data (LD) BCA module, users cannot extrapolate data for higher frequency events for unknown lower frequency events.

Building Data

- Should include FEMA Elevation Certificates for elevation projects or projects using First Floor Elevations (FFEs).
- Include data for building type (tax records or photos).
- Contents claims that exceed 30 percent of building replacement value (BRV) MUST be fully documented.
- Method for determining BRVs MUST be documented. BRVs based on tax records MUST include the multiplier from the County Tax Assessor.
- Identify the amount of damage that will result in demolition of the structure (FEMA standard is 50 percent of pre-damage structure value).
- Include the site location (i.e., miles inland) for the Hurricane module.

Use Correct Occupancy Data

- Design occupancy for Hurricane shelter portion of Tornado module.
- Average occupancy per hour for the Tornado shelter portion of the Tornado module.
- Average occupancy for Seismic modules.

Questions to Be Answered

- Has the level of risk been identified?
- Are all hazards identified?
- Is the BCA fully documented and accompanied by technical support data?
- Will residual risk occur after the mitigation project is implemented?

Common Shortcomings

- Incomplete documentation.
- Inconsistencies among data in the application, BCA module runs, and the technical support data.
- Lack of technical support data.
- Lack of a detailed cost estimate.
- Use of discount rate other than FEMA-required amount of 7 percent.
- Overriding FEMA default values without providing documentation and justification.
- Lack of information on building type, size, number of stories, and value.
- Lack of documentation and credibility for FFEs.
- Use of incorrect Project Useful Life (not every mitigation measure = 100 years).

Appendix E: Plan Maintenance Documents

Annual Review Questionnaire

PLAN SECTION	QUESTIONS	YES	NO	COMMENTS
PLANNING PROCESS	Are there internal or external organizations and agencies that have been invaluable to the planning process or to mitigation action			
	Are there procedures (e.g., meeting announcements, plan updates) that can be done more efficiently?			
	Has the Task Force undertaken any public outreach activities regarding the MHMP or implementation of mitigation actions?			
HAZARD PROFILES	Has a natural and/or human-caused disaster occurred in this reporting period?			
	Are there natural and/or human-caused hazards that have not been addressed in this HMP and should be?			
	Are additional maps or new hazard studies available? If so, what have they revealed?			
VULNERABILITY ANALYSIS	Do any new critical facilities or infrastructure need to be added to the asset lists?			
	Have there been changes in development patterns that could influence the effects of hazards or create additional risks?			
MITIGATION STRATEGY	Are there different or additional resources (financial, technical, and human) that are now available for mitigation planning within the			
	Are the goals still applicable?			
	Should new mitigation actions be added to the a community's Mitigation Action Plan?			
	Do existing mitigation actions listed in a community's Mitigation Action Plan need to be reprioritized?			
	Are the mitigation actions listed in a community's Mitigation Action Plan appropriate for available resources?			

Mitigation Action Progress Report

Progress Report Period: _____ (date) to _____ (date)

Project Title: _____ Project ID# _____

Responsible Agency: _____

Address: _____

City: _____

Contact Person: _____ Title: _____

Phone #(s): _____ email address: _____

List Supporting Agencies and Contacts:

_____

_____

Total Project Cost: _____

Anticipated Cost Overrun/Underrun: _____

Date of Project Approval: _____ Start date of the project: _____

Anticipated completion date: _____

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase): _____

_____

_____

_____

Milestones	Complete	Projected Date of Completion

Plan Goal (s) Addressed:

Goal: _____

Indicator of Success: _____

Project Status

☐ Project on schedule

☐ Project completed

☐ Project delayed*

*explain: _____

☐ Project canceled

Project Cost Status

☐ Cost unchanged

☐ Cost overrun*

*explain: _____

☐ Cost underrun*

*explain: _____

Summary of progress on project for this report:

A. What was accomplished during this reporting period?

B. What obstacles, problems, or delays did you encounter, if any?

C. How was each problem resolved?

Next Steps: What is/are the next step(s) to be accomplished over the next reporting period?

Other Comments:

Community Local Hazard Mitigation Plan Survey

This survey is an opportunity for you to share your opinions and participate in the mitigation planning process. The information that you provide will help us better understand your concerns for hazards and risks, which could lead to mitigation activities that will help reduce those risks and the impacts of future hazard events.

The hazard mitigation process is not complete without your feedback. All individual responses are strictly confidential and will be used for mitigation planning purposes only.

Please help us by taking a few minutes to complete this survey and return it to:

Planner, City of Craig

PO Box 725
Craig, AK 99921

Vulnerability Assessment

The following questions focus on how vulnerable the community or its facilities are to damage from a particular hazard type using the following vulnerability scale:

0= Don't Know 1 =Minimally Vulnerable 2=Moderately Vulnerable 3=Severely Vulnerable

1. How vulnerable to damage are the *structures* in the community from:

a. Flooding?	0 1 2 3
b. Wildfire?	0 1 2 3
C. Earthquakes?	0 1 2 3
d. Volcanoes?	0 1 2 3
e. Snow Avalanche?	0 1 2 3
f. Tsunami/Seiches?	0 1 2 3
g. Severe weather storms?	0 1 2 3
h. Ground failure (landslide, permafrost)?	0 1 2 3
i. Coastal erosion?	0 1 2 3
j. Climate change?	0 1 2 3
k. Other hazards?	0 1 2 3
Please Specify:	

2. How vulnerable to damage are the *critical facilities* within our community from:

[Critical facilities include airport, community shelter, bulk fuel storage tanks, generators, health clinic, law enforcement office (VPO, VPSO, police department), school, public works, e.g. washeteria/water treatment, reservoir/water supply, satellite dish, communications tower, landfills, sewage lagoons, and stores.]

a. Flooding?	0 1 2 3
b. Wildfire?	0 1 2 3
C. Earthquakes?	0 1 2 3
d. Volcanoes?	0 1 2 3
e. Snow Avalanche?	0 1 2 3
f. Tsunami/Seiches?	0 1 2 3
g. Severe weather storms?	0 1 2 3
h. Ground failure (landslide, permafrost)?	0 1 2 3
i. Coastal erosion?	0 1 2 3
j. Climate change?	0 1 2 3
k. Other hazards?	0 1 2 3

Please Specify:

3. How vulnerable to displacement, evacuation or life-safety is the community from:

a. Flooding?	0 1 2 3
b. Wildfire?	0 1 2 3
C. Earthquakes?	0 1 2 3
d. Volcanoes?	0 1 2 3
e. Snow Avalanche?	0 1 2 3
f. Tsunami/Seiches?	0 1 2 3
g. Severe weather storms?	0 1 2 3
h. Ground failure (landslide, permafrost)?	0 1 2 3
i. Coastal erosion?	0 1 2 3
j. Climate change?	0 1 2 3
k. Other hazards?	0 1 2 3

Please Specify:

4. Do you have a record of damages incurred during past flood events? Yes No

If yes, please describe:_____

_____

_____

Preparedness

Preparedness activities are often the first line of defense for protection of your family and the community. In the following list, please check those activities that you have done, plan to do in the near future, have not done, or are unable to do. *Please check one answer for each preparedness activity*.

Have you or someone in your household:	Have Done	Plan to do	Not Done	Unable to do
Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☐	☐
Talked with family members about what to do in case of a disaster or emergency?	☐	☐	☐	☐
Made a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	☐	☐	☐	☐
Prepared a "Disaster Supply Kit" extra food, water, medications, batteries, first aid items, and other emergency supplies)?	☐	☐	☐	☐
In the last year, has anyone in your household been trained in First Aid or CPR?	☐	☐	☐	☐

5. Would you be willing to make your home more resistant to natural disasters? ☐ Yes ☐ No

6. Would you be willing to spend more money on your home to make it more disaster resistant? ☐ Yes ☐ No ☐ Don't know

7. How much are you willing to spend to better protect your home from natural disasters? *(Check only one)*

☐	Less than $100	☐	Desire to relocate for protection
☐	$100-$499	☐	Other, please explain
☐	$500 and above		
☐	Nothing / Don't know		
☐	Whatever it takes		

Mitigation Activities

A component of the Local Hazard Mitigation Plan activities is developing and documenting additional mitigation strategies that will aid the community in protecting life and property from the impacts of future natural disasters.

Mitigation activities are those types of actions you can take to protect your home and property from natural hazard events such as floods, severe weather, and wildfire. Please check the box for the following statements to best describe their importance to you. Your responses will help us determine your community's priorities for planning for these mitigation activities.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	☐	☐	☐	☐	☐
Protecting critical facilities (clinic, school, washeteria, police/fire department, water/sewer, landfill)	☐	☐	☐	☐	☐
Preventing development in hazard areas	☐	☐	☐	☐	☐
Protecting natural environment	☐	☐	☐	☐	☐
Protecting historical and cultural landmarks	☐	☐	☐	☐	☐
Promoting cooperation within the community	☐	☐	☐	☐	☐
Protecting and reducing damage to utilities, roads, or water tank	☐	☐	☐	☐	☐
Strengthening emergency services (clinic workers, police/fire)	☐	☐	☐	☐	☐

8. Do you have other suggestions for possible mitigation actions/strategies?

_____

_____

_____

_____

_____

General Household Information

9. Please indicate your age: _____

and Gender: ☐ Male ☐ Female

10. Please indicate your level of education:

☐	Grade school/no schooling	☐	College degree
☐	Some high school	☐	Postgraduate degree
☐	High school graduate/GED	☐	Other, please specify
☐	Some college/trade school		

11. How long have you lived in Craig?

☐ Less than 5 years ☐ 5 to 10 years ☐ 11 to 20 years ☐ 21 or more years

12. Do you have internet access? ☐ Yes ☐ No

13. Do you own or rent your home? ☐ Own ☐ Rent

If you have any questions regarding this survey or would like to learn about other ways that you can participate in the development of the Local Hazard Mitigation Plan, please contact the City Planner.

Thank You for Your Participation!

This survey may be submitted anonymously; however, if you provide us with your name and contact information below we will have the ability to follow up with you to learn more about your ideas or concerns (optional):

Name: _____

Address: _____

_____

Phone: _____