## Homer City Hall

491 E. Pioneer Avenue Homer, Alaska 99603 www.cityofhomer-ak.gov



City of Homer Agenda

## Public Works Campus Task Force Worksession Wednesday, April 21, 2021 at 4:30 PM Cowles Council Chambers via Zoom Webinar Webinar ID: 990 6794 3833 Password: 716429 Dial: (669) 900-6833 or (253) 215-8782 or Toll Free (888)788-0099 or (877)853-5247

### CALL TO ORDER, 4:30 P.M.

### AGENDA APPROVAL

## **DISCUSSION TOPIC(S)**

- a. Draft Memorandum to City Council re: Goal 1 Report
  - Risks & Mitigation Table
  - Resolution 20-125
- <u>b.</u> Discussion on Long and Short Terms Costs
  - Memorandum from Carey Meyer re: New Public Works Facility dated February 2020
  - 2020 CIP Project New Public Works Facility dated December 2019
  - Future Public Works Footprint
  - Existing Public Works Building Floorplan
- c. Next Steps
  - Deliverables for the April 28, 2021 Meeting

### INFORMATIONAL MATERIALS

<u>a.</u> Adopted Meeting Scheduled - Updated

## COMMENTS OF THE AUDIENCE (3 minute time limit)

### ADJOURNMENT

Next Regular Meeting is **WEDNESDAY, APRIL 28, 2021, at 4:30 p.m.** All meetings scheduled to be held via Zoom Webinar in the City Hall Cowles Council Chambers located at 491 E. Pioneer Avenue, Homer, Alaska.





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491 East Pioneer Avenue Homer, Alaska 99603

> (p) 907-235-8121 (f) 907-235-3140

MEMORANDUM

2		
3	To:	Mayor Castner and the Homer City Council
4	From:	Public Works Task Force
5	RE:	Risk Catalogue and Evaluation
6	Date:	April 16, 2021
7		

## 8 Introduction

9 Resolution 20-125 set out three goals for the task force to address and make 10 recommendations to Council. To date, the group has held **7** meetings including

11 worksessions. The purpose of this memo is to provide a report of our activities so far.

12

1

Goal #1: Evaluate the risks of personal injury, property damage and loss of life in
 the event a tsunami floods the Public Works Campus.

15 a. Scope of work: **Review the findings of the 2019 Updated Maximum Estimates** 16 i. 17 Tsunami Inundation report published by the Alaska Division of **Geological and Geophysical Surveys** 18 Develop a system for evaluating risks 19 ii. **Catalogue and evaluate risks** 20 iii. b. Deliverable: Report of findings of probable Risks 21 22

## 23 **Tsunami Report Evaluation**

The Task Force reviewed the Tsunami report, and then heard a presentation by Elena Suleimani and Dr. Barrett Salisbury, two of the report authors. The Task Force learned that even a low level of water can cause extreme damage. Unlike a typical wave, a Tsunami is like a fast flooding tide that continues for hours and hours. It carries an immense amount of debris, so between the strong flood and the amount of debris, it's very damaging. The report determined a number of Tsunami scenarios that would cause catastrophic damage to coastal areas of Homer.

- 32 The elevation of the Public Works parking lot is 30 feet. In the worst case scenario, the
- 33 water could reach 50 feet high, leaving the campus inundated with 20 feet of water. In
- 34 lesser scenarios, hours long fast moving flood waters could erode the fill that Public

35 Works sits on, causing the loss of the parking lot and potentially threatening the 36 structural stability of the buildings.

## 37 Catalogue and Evaluate Risks

The Task Force developed a spreadsheet of risks by type of risk – environmental, harm to workers, harm to Public Works operations, and overall negative impacts to city services, in the event a tsunami flooded the Public Works Campus. The draft table is attached here. In addition to gathering input from task force members, we used the All

- 42 Hazard Mitigation Plan to further consider risks to the facility. The risks evaluated are
- 43 specific to the Public Works campus in case of Tsunami a regional earthquake will be
- 44 felt city wide and the impacts are not specific to Public Works.
- 45
- 46 Another issue this process raised is opportunity cost. If Public Works personnel wasn't
- 47 moving equipment during every Tsunami warning, workers could be helping with the
- 48 evacuation of people from low lying areas. In the event of a Tsunami and damage to the
- 49 campus, Public Works staff would be needed to respond to that facility, rather than
- 50 taking part in the city wide response that will surely be needed. Rather than having the
- 51 resources to participate in the city emergency response and recovery, the facility will
- 52 require those resources and personnel to stabilize operations.
- 53

## 54 **Conclusion of Goal 1 work:**

- 55 The Public Works Campus is critical infrastructure. Should a Tsunami occur, the loss of 56 the Public Works Campus would cause a severe impact to city services and the City's 57 ability to respond and recover from such a disaster. Planning for the long term 58 replacement of the Public Works Campus at a higher elevation is the prudent course of
- 59 action.
- 60
- 61

## 62 Next Steps

- 63 The Task Force will continue its work as outlined in Resolution 20-125. The group aims 64 to have a report on Goal 2 and deliverables, for a future Council meeting. (JE comment;
- 65 what is our timeframe we loosely set for goal 2? Let's use that info here!)
- 66
- 67

## 68 Attachments

- 69 **1. Risks Spreadsheet**
- 70 **2. Resolution 20-125**
- 71
- 72
- 73

	А	В	С	D
1	Impacted Group	Potential Risk/Outcome	Evaluation	Mitigation Options
2	Environment	Calcium Chloride storage	Flooding would have localized impact for 1 week to one month. CC Causes acute toxicity but would be quickly dispersed by a Tsunami	Store at a higher elevation (easy to replenish in a new location over time). Alternately, accept the loss of sand pile and lose the ability to provide sanding services.
3	_	Fueling depot for all city vehicles	Could cause a fuel spill	Move fuel depot
4		Toxicity to people and the environment from chemicals stored at PW, and potential impact on salmon, shorebirds and nearby area	Some oil and hydraulic fluids are stored at PW, but in relatively low quantities (its not a tank farm). Could have short term affect but not expected to cause long term damage. Tsunami would dissipate quickly.	None needed
5		RV holding tank storage	Loss of service	Create a new higher elevation RV dump location
6		Sewer treatment plant flooding and raw sewage escapement	Sewage spills, but cleanup of facility is possible	Facility can not be reasonably moved.
8	Workers	All PW administration and mechanics are located on site	All administrative support and operations for PW would immediately need a new location, along with work stations, phones and IT capabilities	Remote work, or re-home administrative functions in other city facilities. Disruptive to PW and citywide operations.
g		Potential loss of life	Early Warning System provides warning, would take time for water to reach PW, and reach a flood elevation.	PW emergency operations protocol could better track who is on site or do a final sweep at evac. Threat is from the evacuation process, injury or accident during evacuation

	A	В	С	D
1	Impacted Group	Potential Risk/Outcome	Evaluation	Mitigation Options
10		All employees and rolling stock is evacuated during every Tsunami event warning. Takes about 45 minutes.	Staff could be helping with the effort to evacuate the public, freeing up other emergency responders.	In an emergency, injuries are likely and would pull emergency responders away from traffic control and evacuation efforts.
11		Traffic risk for workers and the public as all the rolling stock is evacuated	PW is able to provide its own flagger and traffic control if needed. This is not a pinch point for evacuation operations for staff or the public.	Evacuation goes pretty well because we do it fairly often. Can provide a flagger if needed. Equipment evacuation is smooth; it's the pipes valves tools that cant be evacuated, along with frozen in equipment such as summer parks items.
12				Have started some stashes of water valves etc. but don't have pipe storage, etc.
13		How could PW staff be helping if they were not moving equipment? How could they be helping with response?	Traffic control! Monitor water/sewer infrastructure, could be helping dispatch and other emergency responders. Could help evacuate low lying areas, or spit equipment. Could revise emergency management plan so PW is a resource, and better plan for utilities	
14				
15	City operations	Loss of fueling depot	Immediate need to switch to local service stations. Likely to have fuel shortages for our rolling stock, including ambulances and fire trucks.	Backup fuel storage in another location, move fuel island. Needed for all disasters and in case of supply chain disruptions

	А	В	С	D
1	Impacted Group	Potential Risk/Outcome	Evaluation	Mitigation Options
16		Loss of PW mechanic services due to loss of personal and city tools, parts, materials and shop space	There is substantial investment in the mechanic shop that would be difficult to replace on short notice	Hire out repair services (light vehicles only). Services may not be available or have the expertise needed for emergency vehicles. Short term solution only? No solution?
17				PW building is insured for \$2,500,000, with a \$250,000 deductible
18		Disruption to sewer treatment operations	Cleanup would be required, but the facility could be repaired	Not looking to relocate because the alternatives are not feasible. The deep shafts would remain may need repair/electric etc. but the concrete shafts are stable.
19		Loss of all PW administrative offices	Loss of historical files, including all city projects, paper plans are not replaceable decades of projects	Scan plan sheets and institute electronic records management.
20		Radio and communication systems would be impacted	PRV stations/water system impacted. Reduction in city phone service redundancy which could affect non- emergency phone calls to dispatch	Losing electronics for PRV and lift stations means losing the ability to identify leaks, water breaks, and pump water and pump sewers. Would require people on the ground to do it manually.
21		Ability to supply bulk water at Public Works would be reduced	There are currently two private bulk water providers who could supply water trucks if the water system was functional.	Consider an additional bulk water source in case of disaster (like at the treatment plant).

	А	В	С	D
1	Impacted Group	Potential Risk/Outcome	Evaluation	Mitigation Options
22		Loss of rolling stock	Higher value stock rolls first, lower value stock does not moved - stuff on a trailer, or harder to move like the asphalt machine. Easy to move stuff goes, equipment that does not move does not get evacuated.	Quantify what is not rolling: 20-25% of equipment might not be moveable (repairs, etc.) A few supplies would be frozen in although most are under sheds
23		Parks equipment doesn't move in an evacuation. Loss of lawnmowers, brush cutters, snow blowers, bobcat, traffic signs etc.	We have learned from doing the vaccine events that having enough traffic control people and cones, signs etc. is critical to safe large scale operations.	
24	Equipment	Loss of sand pile	Would not be able to sand roads. Use stockpile for road and water and sewer repairs, especially in winter. Would hinder repair capability.	Store sand pile in a different location
25		Loss of other equipment and materials	Loss of culverts and other materials used for repairs	Consider storing some items (say in a connex) on higher ground.
26		Loss of motor pool equipment shop	elimination of capacity to fix police and fire vehicles, could lose whatever apparatus is currently under repaid such as an ambulance, port	
27		Leaving equipment in an unsecured area after evacuation leaves it vulnerable to vandalism	Currently there are people at PW most of the time, but the site is unsecured. Pipes etc. are more secured (connexes)	Currently the equipment is out of sight, out of mind, so people don't see the equipment. If its moved to Hazel, its much more visible to people. Emergencies bring out the best and worst in people.

	А	В	С	D
1	Impacted Group	Potential Risk/Outcome	Evaluation	Mitigation Options
		After initial phase, could equipment go	Fragmenting affect on operations during	
		someplace else (mitigation) can we re-house it	the response/recovery timeframe, until	
28		around the city? Effect on operations?	a new PW facility could be established.	

1	CITY OF HOMER
2	HOMER, ALASKA
3	City Manager/
4	Public Works Director
5	RESOLUTION 20-125
6	
7	A RESOLUTION OF THE CITY COUNCIL OF HOMER, ALASKA,
8	CREATING A PUBLIC WORKS CAMPUS TASK FORCE AND
9	ESTABLISHING THE SCOPE OF WORK AND PARAMETERS UNDER
10	WHICH THE TASK FORCE WILL CONDUCT ITS WORK.
11	
12	WHEREAS, In 2019, the Alaska Division of Geological and Geophysical Surveys published
13	updated Tsunami Inundation Maps for Homer; and
14	
15	WHEREAS, The information for these maps was derived by numerically modeling worst-
16	case scenarios of inundation from tsunami waves generated by earthquakes and submarine
1/	landslides, including local underwater slope failure scenarios for Kachemak Bay; and
18	WHEPEAS The maximum landslide generated tounamilies mediated shows the evicting
19	Hoath Street campus of the City's Public Works Department could be fleeded by as much as
20	16.4 – 32.8 feet: and
22	10.4 - 52.6 feet, and
23	WHEREAS. Under some scenarios, the first wave could appear within one hour after the
24	earthquake and further, landslide-generated waves could hit low-lying areas while the ground
25	was still shaking from an earthquake; and
26	
27	WHEREAS, Currently, when a Tsunami Warning is issued, Public Works personnel
28	immediately begin evacuating major pieces of heavy machinery and other mobile equipment
29	from its campus to higher ground and the evacuation process takes at least forty-five minutes;
30	and
31	
32	WHEREAS, The Department does not currently evacuate materials and supplies, which
33	would be needed in the event an earthquake or tsunami causes damage to the City's water,
34	sewer or road infrastructure; and
35	
36	WHEREAS, The estimated costs to properly prepare for such recovery, by creating
37	stockpiles of necessary materials, supplies and equipment, would be substantial; and
38	WILEDEAG For these researce side of the little in the litt
39	WHEREAS, For these reasons, risks of personal injury, property damage and even loss
40	of the could be fligh, either during the tsunami event itself or during recovery.
41	

Page 2 of 3 RESOLUTION 20-125 CITY OF HOMER

42	NOW, THEREFORE, BE IT RESOLVED that the City Council of Homer, Alaska, hereby			
43	creates the Public Works Campus Task Force for the following purposes:			
44	1. Goal #1 – Evaluate the risks of personal injury, property damage and loss of life in			
45	the event a tsunami floods the Public Works Campus.			
46	a. Scope of Work –			
47	i. Review the findings of the 2019 Updated Maximum Estimated			
48	Tsunami Inundation report published by the Alaska Division of			
49	Geological & Geophysical Surveys			
50	ii. Develop system for evaluating risks			
51	iii. Catalog and evaluate risks			
52	<ul> <li>Deliverables – Report of Findings of probable risks</li> </ul>			
53	c. Timeframe – Report to be submitted by January 31, 2021			
54	<ol><li>Goal #2 – Develop strategies for mitigating identified risks</li></ol>			
55	a. Scope of Work –			
56	i. For each risk identified under Goal #1, identify strategies for			
57	mitigation, including estimated short term and long term costs			
58	b. Deliverables – Report summarizing strategies and cost estimates			
59	c. Timeframe – Report to be submitted by February 28, 2021			
60	3. Goal #3 – Make recommendations.			
61	a. Scope of Work –			
62	i. Develop system for evaluating strategies			
63	ii. Evaluate strategies			
64	b. Deliverables – Report summarizing evaluation process and identifying			
65	preferred options			
66	c. Timeframe – Report to be submitted by March 31, 2021			
67				
68	BE IT FORTHER RESOLVED the Public Works Campus Task Force will be made up of 7			
69	members, with 3 City Residents, 2 Councilmembers, and 2 City Staff.			
70	RE IT FURTHER RECOUVED. The Mayor will nominate annainteas to the Task Fores from			
/1	BE IT FORTHER RESOLVED, The Mayor will nominate appointees to the Task Force from			
72	the pleasure of the Council and may be removed from their position by a majority of the			
75	Council at any time without cause			
75	Council at any time without cause.			
76	PASSED AND ADOPTED by the Homer City Council on this 22rd day of November, 2020			
77	ASSED AND ADOFTED by the nomer city council on this 25° day of November, 2020.			
78	CITY OF HOMER			
79				
80				
81	Lee ABhim			
82	KEN CASTNER, MAYOR			
83	11 10 3 11 1964 1 1 1964			
84				

Page 3 of 3 RESOLUTION 20-125 CITY OF HOMER

85 ATTEST:

86 87 Jacoh NUN 88

89 MELISSA JACOBSEN, MMC, CITY CLERK

- 90 91
  - Fiscal Note: Staff time and advertising.





Public Works 3575 Heath Street Homer, AK 99603 orks@cityofhomer-ak.gov

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publicworks@cityofhomer-ak.gov (p) 907- 235-3170 (f) 907-235-3145

# Memorandum

TO: Katie Koester, City Manager

**FROM:** Carey S. Meyer, City Engineer/Public Works Director

DATE: February 6, 2020

SUBJECT: New Public Works Facility

Public Works needs a new facility:

- 1) Our existing facility is in the Tsunami Inundation Zone (potential for a 30' wall of water moving through the site).
- 2) Current building square footage is not adequate (not enough office/operational space, Motor Pool bays to small, no room for growth).

Included in the current Capital Improvement Plan is a conceptual cost estimate for this project (see attached). The new facility could cost \$12,400,000 (including land, design and construction).

When a new facility is constructed, the existing Public Works site could be turned into a park (adjacent to the animal shelter, conservation easement property, and the Beluga Slough) with convenient access to the public. The contemplated Beluga Slough Trail would provide additional access to the park. The site could provide for overflow RV camping and snow storage during the winter months.

Public Works has evaluated potential sites for a new facility. The most practical, from our perspective, is the site shown on the attached map. It provides the necessary acreage for current and future needs and efficient access to the central business area/major City public buildings, with access onto both Heath Street and Lake Street. No off-site road or utility extensions would be required. Surrounding land uses are similar in nature to Public Works operations (HEA).

Grants (including DHS Disaster Mitigation) would help fund the design and construction of this facility. Grants are not normally available to purchase land. The purchase of land can be used as a match for grant/loan funding. The new facility would support general fund operations as well as water and sewer personnel. Potential local funding sources for land purchase, design and construction would be both general fund and water/sewer fund reserve accounts.

Purchase of land for a new Public Works facility would establish the permanent location of the Public Works Department. If, for example, the decision is made to demolish the HERC building that houses building maintenance personnel; a new maintenance facility could be build where it should be.

**Recommendations**: Land purchase be discusse City Council work session.

## **CIP Project – New Public Works Facility**

**Project Description & Benefit**: The Public Works Department has outgrown its facilities (located at the bottom of Heath Street). The new Tsunami Inundation map shows the potential for a 30' high wave moving through the complex. Building maintenance (located in HERC 2) may soon need a new location. A new facility, providing room for current and future administrative /customer support personnel; road, drainage, building, water, sewer, motor pool maintenance activities; and equipment/materials storage should be planned for. The essential services provided by Public Works (before, during and after a disaster) will require a new site and associated structures/maintenance support infrastructure.

This project will most likely be completed in phases -

- Concept design, selection of a new location and property purchase (\$1,750,000)
- Design of new facilities (\$830,000)
- Construction of new facilities (\$9,775,000)

Future Public Works Footprint/Cost Estimate					
Use	SF	0	Const. Cost		
Building - Office	3000	\$	1,200,000		
Building - Motor Pool	4500	\$	2,250,000		
Building - Water/Sewer	3000	\$	1,275,000		
Building - Building Maintenance	2500	\$	937,500		
Building - Parks	1500	\$	562,500		
Building - Heated Vehicle Storage	3000	\$	750,000		
Total Building	17500	\$	6,975,000		
Parking - Customer/Employee	30000	\$	450,000		
Large Equipment Storage	20000	\$	400,000		
Small Equipment Storage	10000	\$	250,000		
Gravel Storage	7500	\$	10,000		
Sand Barn	5000	\$	875,000		
Material Storage	7500	\$	75,000		
Access Corridors	5000	\$	150,000		
Watering Pont	1000	\$	100,000		
Total Parking/Storage/Misc.	86000	\$	2,310,000		
Construction		\$	9,285,000		
Design		\$	928,500		
Inspection		\$	371,400		
Furnishings		\$	200,000		
1% for Art		\$	69,750		
Total Design/Constrcution		\$	10,854,650		
Land Purchase	5 acres	\$	1,500,000		
Total Project		Ś	12 354 650		

Based on an evaluation of current and future needs (see table), it is expected that a new site containing all Public Works maintenance facilities would require 4.6 acres. Ideally, this site would be located outside the tsunami inundation zone; within or close to the Central Business District; and compatible with adjacent land uses. The existing Public Works site could be converted into public summer use open



Existing Public Works building

space (adjacent to the animal shelter, Beluga Slough, and conservation land); and in the winter provide for snow storage in an environmentally sensitive manner.

**Plans & Progress**: Proposed plan is to prepare a concept design in 2020/2021; purchase property in 2025; design facility in 2026/2027; begin construction in 2029, with a new facility ready in 2030. Availability of funding would change these time periods.

Use	SF	(	Const. Cost
Building - Office	3000	\$	1,200,000
Building - Motor Pool	4500	\$	2,250,000
Building - Water/Sewer	3000	\$	1,275,000
Building - Building Maintenance	2500	\$	937,500
Building - Parks	1500	\$	562,500
Building - Heated Vehicle Storage	3000	\$	750,000
Total Building	17500	\$	6,975,000
Parking - Customer/Employee	30000	\$	450,000
Large Equipment Storage	20000	\$	400,000
Small Equipment Storage	10000	\$	250,000
Gravel Storage	7500	\$	10,000
Sand Barn	5000	\$	875,000
Material Storage	7500	\$	75,000
Access Corridors	5000	\$	150,000
Watering Pont	1000	\$	100,000
Total Parking/Storage/Misc.	86000	\$	2,310,000

## **Future Public Works Footprint/Cost Estimate**

Construction	\$	9,285,000
Design	\$	928,500
Inspection	\$	371,400
Furnishings	\$	200,000
1% for Art	\$	92,850

2,310,000

Total Design/Constrcution		\$ 10,877,750
Land Purchase	4.6 acres	\$ 1,150,000

	Total Project	\$	12,027,750
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www.cityofhomer-ak.gov

Office of the City Clerk 491 East Pioneer Avenue Homer, Alaska 99603

clerk@cityofhomer-ak.gov (p) 907-235-3130 (f) 907-235-3143

## Memorandum

TO: PUBLIC WORKS CAMPUS TASK FORCE

FROM: RENEE KRAUSE, MMC, DEPUTY CITY CLERK

DATE: APRIL 15, 2021

SUBJECT: APPROVED MEETING SCHEDULE WITH REVISED MEETING TIME

Below is the revised meeting schedule and report timelines as approved by the Task Force.

This schedule reflects the additional worksession as of the April 14, 2021 Meeting date.

Meeting Time	Task	Report Date	Meeting Dates	Status of Meeting
2:30 p.m.	<ul> <li>Report of Findings of Probable Risks</li> <li>Catalog &amp; Evaluate Risks</li> <li>Develop System for Evaluating Risks</li> <li>Review Findings</li> <li>Draft Report</li> </ul>	May 10, 2021	2/10/21 Reg Mtg 2/18/21 WS 2/24/21 Reg Mtg 3/10/21 Reg Mtg 3/24/21 Reg Mtg	COMPLETED COMPLETED COMPLETED COMPLETED
2:30 p.m. 4:30 p.m.	Report of Strategies including Cost Estimates - Identifying Strategies for Mitigation of Risks Identified O Short & Long Term Costs for mitigation strategies - Draft Report	May 10, 2021	4/14/21 Reg Mtg 4/21/21 WS 4/28/21 Reg Mtg 5/12/21 Reg Mtg 5/26/21 Reg Mtg	COMPLETED
4:30 p.m.	Report on Evaluation Process and Identifying Preferred Options - Develop system for evaluating strategies - Evaluate strategies - Draft Report	August 9, 2021	6/9/21 Reg Mtg 6/23/21 Reg Mtg 7/14/21 Reg Mtg 7/28/21 Reg Mtg	