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

# City of Homer
# Agenda

**Public Works Campus Task Force Regular Meeting**
**Wednesday, April 28, 2021 at 4:30 PM**
**Cowles Council Chambers via Zoom Webinar**
**Dial: +1 669 900 6833 or +1 253 215 8782 or Toll Free (888) 788 0099 or 877 853 5247**
**Webinar ID: 990 6794 3833 Passcode: 716429**

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

**AGENDA APPROVAL**

**PUBLIC COMMENTS UPON MATTERS ALREADY ON THE AGENDA**

**APPROVAL OF MINUTES**

a. Regular Meeting Minutes for April 14, 2021 **page 3**

**VISITORS/PRESENTATIONS**

**REPORTS**

**PENDING BUSINESS**

a. Risk Catalogue and Evaluation **page 11**

- Draft Memorandum to City Council
- Risk Evaluation and Mitigation Table

**NEW BUSINESS**

a. Short & Long Term Mitigation Costs **page 18**

- Memorandum from Member Engebretsen
- Prioritized Mitigation Strategies and Relative Costs Table

**INFORMATIONAL MATERIALS**

a. Inundation Maps **page 22**

b. Resolution 20-125 Establishing the Task Force and Outlining Scope of Work **page 24**

c. Approved Task Force Meeting Schedule - revised April 15, 2021 **page 27**

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

**COMMENTS OF CITY STAFF**

**COMMENTS OF THE TASK FORCE**

**ADJOURNMENT**

Next Regular Meeting is Wednesday, May 14, 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.

Session 21-05, a Regular Meeting of the Public Works Campus Task Force was called to order by Chair Donna Aderhold at 2:30 p.m. on April 14, 2021 via Zoom Webinar from the City Hall Conference Room located at 491 E. Pioneer Avenue, Homer, Alaska.

**PRESENT:** MEMBERS ENGEBRETSEN, ARGUETA, SLONE, VENUTI, KEISER, ADERHOLD, AND BARNWELL

**STAFF:** RENEE KRAUSE, DEPUTY CITY CLERK

**AGENDA APPROVAL**

Chair Aderhold requested a motion to approve the agenda.

VENUTI/BARNWELL - MOVED TO APPROVE THE AGENDA.

Chair Aderhold stated that the agenda required amending to move the Informational Item B to New Business item C so the Task Force can discuss and take action. She requested a motion.

VENUTI/ARGUETA MOVED TO AMEND THE AGENDA TO MOVE INFORMATIONAL MATERIALS ITEM B TO NEW BUSINESS ITEM C.

There was no discussion.

VOTE. NON-OBJECTION. UNANIMOUS CONSENT.

Motion carried.

Chair Aderhold inquired if there was any further discussion on the motion as amended.

VOTE. NON-OBJECTION. UNANIMOUS CONSENT.

Motion carried.

**PUBLIC COMMENTS UPON MATTERS ALREADY ON THE AGENDA**

**APPROVAL OF MINUTES**

A. Regular Meeting Minutes for March 24, 2021

Chair Aderhold requested a motion to approve the minutes.

VENUTI/BARNWELL MOVED TO APPROVE THE MINUTES OF MARCH 24, 2021.

There was no discussion.

VOTE. NON-OBJECTION. UNANIMOUS CONSENT.

Motion carried.

**VISITORS/PRESENTATIONS**

**REPORTS**

**PENDING BUSINESS**

A. Probable Risks Table & Report
   - Draft Memorandum to City Council
   - Risks Table

Chair Aderhold introduced the item by reading of the title and invited Ms. Engebretsen to speak to the memorandum.

Member Engebretsen reviewed the work that the Task Force did at the previous meeting and she was unable to finish the table but will be able to at the worksession. She then addressed her draft memorandum to City Council and wanted consensus on the recommendations 1 and 2.
She reviewed conclusions providing a brief synopsis for Member Barnwell and requested his opinion on them since he was not at those meetings.

Member Barnwell disagreed with Member Slone points on probability that he raised. He stated the following:

- The DGGS report and analysis is authoritative and that the report shows calculations for the probabilities with the different scenarios shown in that report and those are reflected on the maps.
- He should have spoken up in earlier meetings that the information reflected in the report and maps are an assessment of probability in themselves
- The lines on the maps are the result of computer modeling which takes in all the factors – earthquake magnitude, elevations - that are listed in the report.
- DGGS has presented the scenarios with the worst case scenario going right through the Public Works Campus.

Mr. Barnwell related a conversation with Dr. Salisbury three weeks prior regarding the percentage of probability on the worst case scenario happening, Dr. Salisbury responded that he could not, but asked the question in return, if the City really wanted to take that risk. This science is not as exacting. Member Barnwell expressed that to his professional experience the risk is serious.

Discussion ensued on the applicability of Conclusion 1 as presented in the draft memorandum. Points were made on the following:

- The building is old and is no longer really suitable, not ADA compliant
- If an event happens it will be catastrophic, probability may be low but there is no way to predict an event.
- Materials and supplies need alternative storage locations in reason since they would be required if an event happened.

- Personnel could be assisting in other ways in an event if they were not required to focus on relocating equipment.
- The table clearly identifies that Public Works is a valuable and critical part of the city's infrastructure.
- Plans should be directed at relocating the facility since data does not support investing in the current location.
- Even a smaller event similar to the one that was presented in video from Santa Cruz can cause devastation.
- Focus should be on the consequences not on probability.

A brief discussion ensued on the drafting of the memorandum to City Council from Task Force. The following edits were made to page 9-10 of the packet:

- Lines 27-28 on page 9 of the packet was not quite correct and should be deleted.
- Lines 28-30 is good, but the verbiage of line 29-30 there is a question on who defines what is dependable.
- Add the statement, The State of Alaska Geological Survey which is the authoritative expert has determined a number of scenarios that would cause catastrophic damage to the lower elevations of the coastal part of Homer.
- Add Geological Survey cannot provide a specific probability but the scenarios are based on computer modeling.
- When a warning is received there is no information

Member Keiser joined the meeting at 3:10 p.m. and Chair Aderhold brought her up to speed on the discussion on the table.

Member Keiser provided her understanding of the information and how that would affect the Public Works Campus and resulting damages.

Member Barnwell provided the correct impact that would be experienced by the Public Works Campus in a worst case scenario which could happen tomorrow or 100 years from now. He further explained that even if an event happened and Public Works was not affected as bad as other areas they would be needed to mitigate other areas of the city that it would happen such as the Homer Spit.

Chair Aderhold reminded the Task Force that the maximum inundation is 50 feet which means that Public Works could be 20 feet under water.

Member Engebretsen stated that is the message that needs to be presented to the public along with clarification that even if the water level is only a couple of feet it would erode the areas around the building which would be detrimental to the foundation of the building.

Further comments from the Task Force were made on the following:

- level of water, debris contents in the water and time period with regards to the amount of damage received by the facility
- the unknown science of Cook Inlet, Gulf of Alaska or Shelikof Strait

Member Engebretsen reviewed the requirements of the Resolution 20-125 and noted the items that she would address for the worksession. She initiated a brief discussion on the table to fill in the following:

- RV Holding Tanks capacity
- The existing coverage that the City maintains versus the actual cost of replacement in the vicinity of $12-14 million dollars
- Disruptions to sewer treatment operations and mitigation options would be cleaning and repair of damages to the building, such as replacement of wiring.

Member Engebretsen stated that she would short and long term cost estimates as well as the revised Council memorandum.

Member Keiser noted that the information for the Public Works Facility from the CIP would be really helpful on costs.

Deputy City Clerk Krause will forward that information to Member Engebretsen and include in the packet for the worksession.

Chair Aderhold noted the email submitted by Member Slone supporting the determination of general risk assessment of low, medium and high and that there would be a low risk but high consequence and recommended that the Task Force formally adopt a statement reflecting those determinations or one similar.

Member Barnwell requested clarification of the raw date mentioned and what type of low probability model Member Slone referenced in his email. Member Slone requested a few minutes to review his email.

Chair Aderhold called for a brief break at 3:32 p.m. She called the meeting back to order at 3:36 p.m.

Member Slone stated that his reference was raw data, not raw date. He then reviewed the actions and discussion from the last meeting which at the time the Task Force seemed to concur with that statement regarding the low risk, high consequence analysis. He then figured that they would need to adopt it formally by motion but now it seems that they do not agree with that and reversing the decision.

Chair Aderhold reviewed the discussion on the requirements of the Resolution that tasked them to come up with a probability which is not possible and that they can make that statement at the beginning and they can approve the memorandum before submitting it to Council.

Further discussion points were made on the following:

- The Task Force is not the experts, that is the State of Alaska Geological Survey who is putting the authoritative analysis out there that states the risks Homer is or will face
- There are six different scenarios presented
- Any of them could happen at any time now or in the future
- Do not have to reinvent the probability model, it has already been done
- Decision is needed to determine if the Public Works infrastructure should be exposed to the risks that are outlined in the report.

Deputy City Clerk Krause noted a point of order that the Resolution 20-125 did not require the Task Force to determine probability of a tsunami but the probable risks that would be incurred if one happened. She further noted that page 19 in the packet showed the goals that were requested by City Council.

Member Keiser stated that she agreed with Ms. Krause and then explained why she wanted the Task Force to be formed.

b. Identifying Strategies for the Mitigation of Risks
- Identify strategies for each risk identified in the table

Chair Aderhold introduced the item and opened the floor to discussion.

Member Keiser requested clarification on line 30-32 in the memorandum.

Member Engebretsen explained that they discussed that sentence and it will be removed.

Discussion was facilitated by Member Engebretsen on portions of the table and the following amendments and comments were made:
- Adding information regarding worst case scenario to loss of life in the workers section

A difference of opinion was expressed on the event that would trigger the worst case scenario that would affect the Public Works Campus and the time that would be available to evacuate the facility ensued with Member Slone requesting the time to review the record to bring back to the next meeting his findings and advocated that if the Task Force is to make a decision based on the science then they should defer to the scientists.

Chair Aderhold noted that they were only working on the details and not making any decisions at this meeting. She further commented on the value to the overall discussion and inquired if there were any further comments on that particular topic, adding that if there is no known information, then they must use the information provided in the worst case scenario, noting that if a tsunami caused by an underwater landslide in Kachemak Bay would be a very fast moving event and difficult to respond to quickly.

Member Engebretsen responding to Chair Aderhold that she believed they had all the information needed to complete the table and then recounted the next worksession to review and amend the draft which can then be approved at the Apri1 28th. They will then have a final document ready for the May 10th Council meeting on Goal #1.

c. Short & Long Term Costs for Mitigation Strategies
- Identify short and long term costs involved for each of the mitigation strategies identified for each of the risks shown in the table.

Chair Aderhold introduced the item by reading of the title and open the floor to discussion.

A brief discussion was facilitated by Members Keiser and Engebretsen on the following:

- Is it necessary to move the whole facility or just the majority
- Prior space planning and dimensional issues
    - Requirements for newer equipment used by other departments
- Bring information for review during the worksession

**NEW BUSINESS**

a. Current and Future Needs for the Public Works Department

- Identify and categorize the current and future needs in relation to the facility that the department would require.

Chair Aderhold introduced the item by reading of the title and opened the discussion by commenting on the overlap within the topics since they just touched on this topic but requested any additional future needs that Member Keiser could possibly list.

Member Keiser responded with the following needs for Public Works:

- Additional covered storage for equipment
- Larger mechanical shop
- Office and storage space for Parks Department
- Storage for supplies
- Size of the existing Public Works is roughly 2.5-2.75 acres but this does not include the Animal Shelter or the Water Sewer Treatment Plant, snow storage, etc.
- Conceptual plan is 4.6 acres however some things such as the gravel or sand pile could be maintained at the existing site
- New facility would need to allow for more parking

b. Next Steps

Chair Aderhold reviewed the potential items for the worksession agenda as follows:

- Memorandum to Council and Table

c. Public Works Campus Task Force Approved Meeting Schedule

Chair Aderhold introduced the item noting that this was moved from the Informational materials to address the following concerns expressed regarding the accessibility of the meetings to the public as follows:

- Average person is working during the time the meetings are scheduled.
- Due to the complexity and depth of the discussions it would be hard to follow just by reading the minutes.
- A webpage would not be adequate information for the general public.

Chair Aderhold opened the floor to discussion.

A discussion ensued on the following topics:

- information being available on the website and the public has the ability now to listen and view the meeting at any time;
- Complaints if any, received by the Clerk
- Staff members would prefer a later meeting time since this time does interrupt their normal work day
- Keeping the meeting dates of the second and fourth Wednesdays is preferred due to other city meetings
- Preference for later meeting time expressed by members to accommodate their work schedules.

VENUTI/SLONE MOVED TO AMEND THE MEETING TIME TO START AT 4:30 P.M.

There was a brief discussion on the new time being applicable to the worksessions.

VOTE. NON-OBJECTION. UNANIMOUS CONSENT.

Motion carried.

Member Venuti will inform Councilmember Smith on the change in their meeting time.

**INFORMATIONAL MATERIALS**

a. Resolution 20-125 Creating the Public Works Campus Task Force and Assigning Scope of Work

b. Inundation Maps

A brief discussion was held on including the Tsunami Report in the worksession packet or if the document could be provided on the meeting page on the City website since it was so large. It was determined that the document could be available on the website as all the members had their paper copies from the previous meeting.

**COMMENTS OF THE AUDIENCE**

**COMMENTS OF THE CITY STAFF**

Deputy City Clerk Krause expressed her appreciation for the change in the meeting time to make it easier for the public to attend the meetings and advised the Task Force of the vacancies on the other advisory bodies.

**COMMENTS OF THE TASK FORCE**

Member Venuti commented on the weather warming up and noticed that Member Argueta did not have his bike hanging up on the wall behind him so she was hoping he was able to get out a ride and then noted that Council just approved a Resolution in support of Fairbanks to improve safety for pedestrians and bicyclists. She expressed her concerns for all cyclists safety. Ms. Venuti appreciated everyone's

serving on this Task Force knowing that they serve on multiple committees and its really nice getting to know everyone.

Chair Aderhold thanked everyone and expressed that they had some very good, productive discussions today.

**ADJOURNMENT**

There being no further business to come before the Task Force the meeting adjourned at 4:23 p.m. The next regular meeting is scheduled for Wednesday, April 28, 2021 at 4:30 p.m. A worksession is scheduled on Wednesday, April 21, 2021 at 4:30 p.m. at the City Hall Cowles Council Chambers via Zoom Webinar located at 491 E. Pioneer Avenue, Homer, Alaska.

_____
RENEE KRAUSE, MMC, DEPUTY CITY CLERK

Approved:_____

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To: Mayor Castner and the Homer City Council
From: Public Works Task Force
RE: Risk Catalogue and Evaluation
Date: April 22, 2021

**Introduction**

Resolution 20-125 set out three goals for the task force to address and make recommendations to Council. To date, the group has held eight meetings. The purpose of this memo is to provide a report of our activities so far.

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

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

**Tsunami Report Evaluation**

The Task Force reviewed the Tsunami report, and then heard a presentation by Drs. Suleimani and 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, its very damaging. The report determined a number of Tsunami scenarios that would cause catastrophic damage to coastal areas of Homer.

We quizzed Drs. Suleimani and Salisbury[1] about the probability of the "worst case scenario" happening. They said it was impossible to say because the data in Alaska is

[1] Elena Suleimani, Ph.D.
Research Analyst & Tsunami Modeler
Alaska Earthquake Center, University of Alaska Fairbanks

Barrett Salisbury, Ph.D.
Neotectonic Geologist, Engineering Section
Division of Geological & Geophysical Surveys

not well enough developed to determine the probability of occurrence. This is why they use the "worst case scenario" approach. Dr. Suleimani said it's up to the communities to decide what to do with this information; that is, to decide (a) what would be at risk if the worst case scenario occurred and (b) what the community wanted to do to address the risks. For this reason, we focused on identifying the risks that may be suffered if the worst case scenario happened at the Public Works Campus.

The elevation of the Public Works parking lot is 30 feet. In the worst case scenario, the water could reach 50 feet high, leaving the campus inundated with 20 feet of water. In lesser scenarios, hours long fast moving flood waters could erode the fill that Public Works sits on, causing the loss of the parking lot and potentially threatening the structural stability of the buildings. Additional potential outcomes are discussed in the attached Risk Table.

**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 Hazard Mitigation Plan to further consider risks to the facility. The risks evaluated are specific to the Public Works campus in case of Tsunami - a regional earthquake will be felt city wide and the impacts are not specific to Public Works.

Another issue this process raised is opportunity cost. If Public Works personnel wasn't moving equipment during every Tsunami warning, workers could be helping with the evacuation of people from low lying areas. In the event of a Tsunami and damage to the campus, Public Works staff would be needed to respond to that facility, rather than taking part in the city wide response that will surely be needed. Rather than having the resources to participate in the city emergency response and recovery, the facility will require those resources and personnel to stabilize operations.

**Conclusion of Goal 1 work:**

The Public Works Campus is critical City infrastructure and lies within the maximum tsunami inundation zone. At an elevation of 30 feet, the campus is in a vulnerable location. Planning for the mitigation of a tsunami event can include short and long term strategies. The Task Force recommends, among other solutions, the long term replacement of the Public Works Campus at a higher elevation.

**Next Steps**

The task force will continue its work as outlined in Resolution 20-125. Risk mitigation strategies for short and long term implementation will be provided, with associated costs. The group intends to have the strategies and costs, a report on Goal 2 and deliverables, for a future Council meeting.

**Attachments**

1. **Risks Spreadsheet**
2. **Resolution 20-125**

4/21/21 WS draft PWTF

Risks, Evaluation and Mitigation

| | A | B | C | 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. |
| 7 | | | | |
| 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. |
| 9 | | 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 |
| 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. |

4/21/21 WS draft PWTF

Risks, Evaluation and Mitigation

| | A | B | C | D |
|---|---|---|---|---|
| 1 | **Impacted Group** | **Potential Risk/Outcome** | **Evaluation** | **Mitigation Options** |
| 11 | **Workers** | 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. Have started some stashes of water valves etc. but don't have pipe storage, etc. |
| 12 | | Opportunity Cost. How could PW staff be helping if they were not moving equipment? How could they be helping with response? | Could be providing traffic control! Monitoring 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 | |
| 13 | | | | |
| 14 | **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 |
| 15 | | 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? |
| 16 | | 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. |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | **Impacted Group** | **Potential Risk/Outcome** | **Evaluation** | **Mitigation Options** |
| 17 | **City operations** | 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. |
| 18 | | 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. |
| 19 | | 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. | If needed, water can be provided via fire hydrants or at the Water Treatment Plant, depending on the nature of the service disruption. |
| 20 | | Loss of rolling stock | Higher value stock rolls first during an evacuation. 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 |
| 21 | | 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. | Mobilize the cone and sign trailer as part of an evacuation. Consider storing some supplies off site. |
| 22 | **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 |
| 23 | | 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. |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | **Impacted Group** | **Potential Risk/Outcome** | **Evaluation** | **Mitigation Options** |
| 24 | | 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 | |
| 25 | | 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. |
| 26 | | After initial phase, could equipment go someplace else (mitigation) can we re-house it around the city? Effect on operations? | Fragmenting affect on operations during the response/recovery timeframe, until a new PW facility could be established. | |
| 27 | | | | |

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To: Public Works Task Force
From: Julie Engebretsen, Deputy City Planner
Date: April 22, 2021
RE: Short and long term mitigation costs

**Resolution 20-125**
**Goal #2** - Develop strategies for mitigating identified risks

a. Scope of Work-
   i. For each risk identified under Goal #1, identify strategies for mitigation, including estimated short term and long term costs
b. Deliverables - Report summarizing strategies and cost estimates

**Requested Actions:**

1. Work through the table as a group to get ideas.
2. Is a table a good way to present this information? …should this become a word document with paragraphs instead? Suggestions welcome!
3. See conundrum below

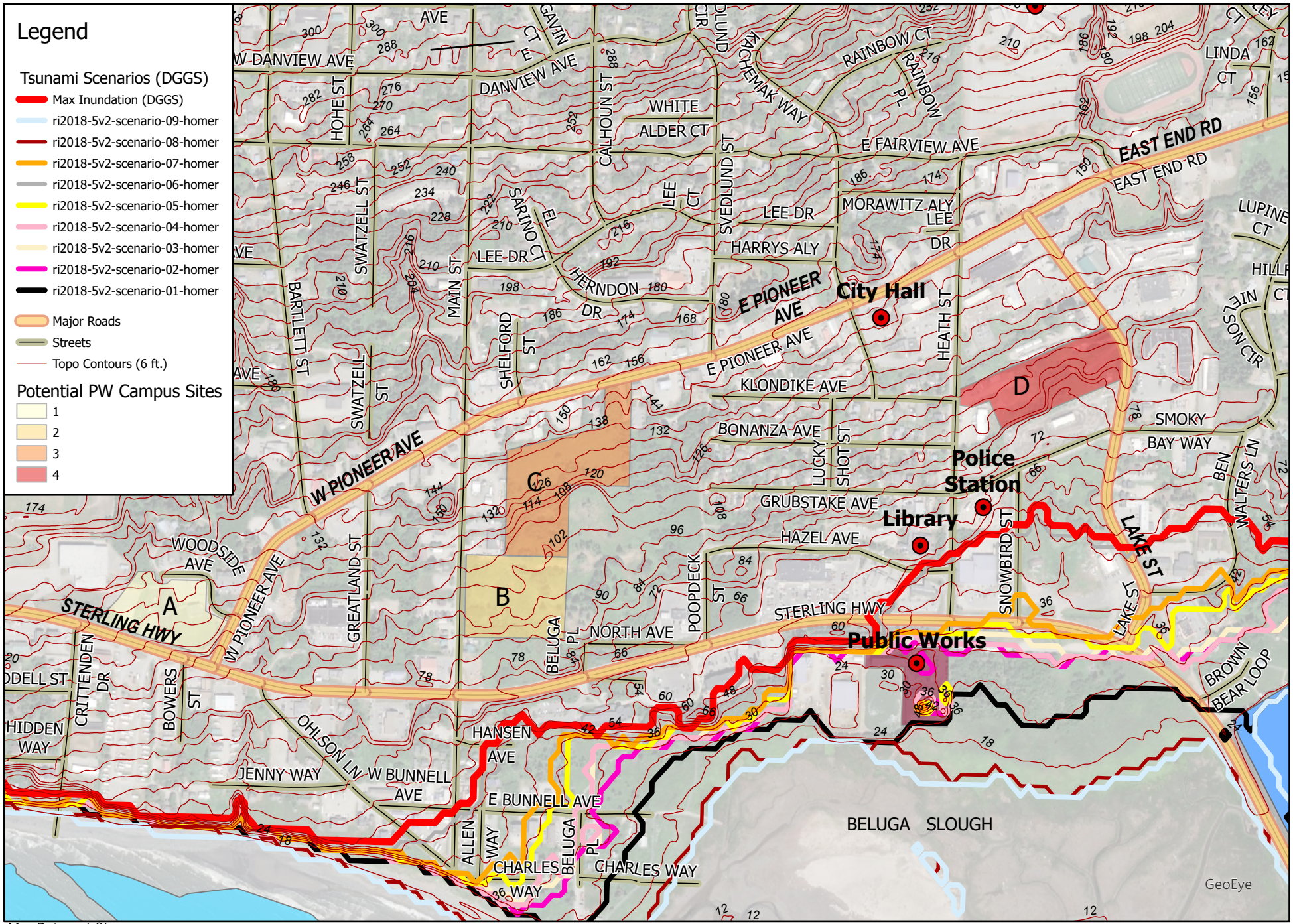
*Conundrum…*

The resolution (line 56) asks for mitigation strategies for all the risks identified, including long and short term costs. As I went through the risks table, some of the items are opportunity costs. There isn't a tangible dollar value. For example, if PW wasn't evacuating equipment, they could be helping to knock on doors in low-lying areas and evacuate people. The city is paying wages either way. I don't have a solution at the moment for how to take all the risks and turn them all into a dollar value. These risks/opportunity costs may be better captured in our final report with preferred alternatives. Open to any and all suggestions on how we might proceed on a report to Council.

**Attachment: 4/22/21 costs table**

| | A | B | C | D |
|---|---|---|---|---|
| 1 | **Potential Risk/Outcome** | **Mitigation Options** | **Timeframe- short term/long term** | **Cost** |
| 2 | | | | |
| 3 | Loss of fueling depot | Move fuel island. | Short term opportunity | Fuel island is already under design for replacement? Status? I.e. are we already spending that $? |
| 4 | Loss of PW mechanic services due to loss of personal and city tools, parts, materials and shop space | Hire out repair services (light vehicles only). Services may not be available or have the expertise needed for emergency vehicles. Short term solution only? Move facility. | Long term cost | |
| 5 | Loss of all PW administrative records | Short term: Scan plan sheets and institute electronic records management. | Shorter term opportunity | e-document management program |
| 6 | Loss of PW administration office | Short term: Remote work, or re-home administrative functions in other city facilities. Long term: Move offices | Long term cost | |
| 7 | Radio and communication systems would be impacted | Would require people on the ground to do check infrastructure manually due to loss of communications infrastructure. | Long term cost | High cost. If the campus moves, and would be part of a larger communications package. Unlikely to be a standalone mitigation measure. |
| 8 | Loss of rolling stock | Higher value stock rolls first during an evacuation. 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. | Long term cost | 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 |
| 9 | RV holding tank storage | Create a new higher elevation RV dump location | Long term cost | |
| 10 | Loss of signs, traffic cones, traffic control supplies | Mobilize the cone and sign trailer as part of an evacuation. Consider storing some supplies off site. | | No cost? Operational change? Cut from this table? |

| | A | B | C | D |
|---|---|---|---|---|
| 1 | **Potential Risk/Outcome** | **Mitigation Options** | **Timeframe- short term/long term** | **Cost** |
| 11 | Parks equipment doesn't move in an evacuation. Loss of lawnmowers, brush cutters, snow blowers, bobcat, traffic signs etc. | Relocate parks equipment | Long term cost | |
| 12 | 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. Or, accept the loss of the sand pile. | | Store sand pile in a different location… maybe |
| 13 | 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. | Short term? | |
| 14 | Leaving equipment in an unsecured area after evacuation leaves it vulnerable to vandalism | Create secured area at a higher elevation | Short term? | |
| 15 | After initial phase, could equipment go someplace else (mitigation) can we re-house it around the city? Effect on operations? | Fragmenting affect on operations during the response/recovery timeframe, until a new PW facility could be established. | Long term cost | |




Map Date: 03/18/21
Data Sources: KPB, COH, DGGS (GIS data, elevation), DGGS Report: RI 2018-5 v. 2
Esri satellite imagery 2020.
Map by: C.E.Barnwell

N

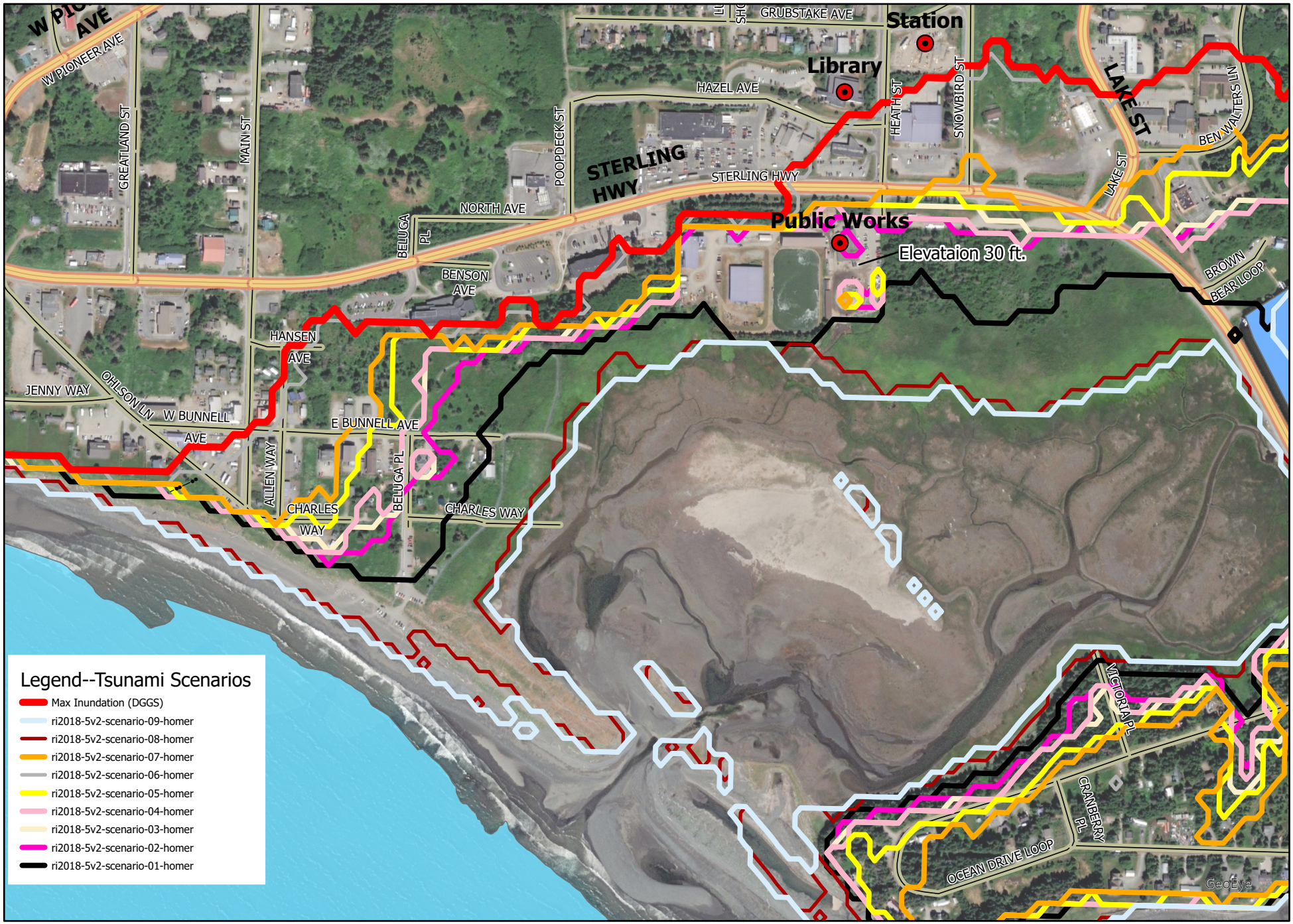
0 0.07 0.15 0.3 Miles

0 0.07 0.15 0.3 Kilometers

22

City of Homer
PUBLIC WORKS SITE TASK FORCE
MAP 1 - TSUNAMI RISK ZONES

CITY OF HOMER




Map Date: 03/18/21
Data Sources: KPB, COH, DGGS (GIS data, elevation), Esri satellite imagery 2020.
Map by: C.E.Barnwell

Major Roads
Minor Streets

N

0 250 500 1,000 Feet

0 55 220 Meters

23

City of Homer
PUBLIC WORKS SITE TASK FORCE
MAP 2-- DETAIL

**CITY OF HOMER**
**HOMER, ALASKA**

City Manager/
Public Works Director

**RESOLUTION 20-125**

A RESOLUTION OF THE CITY COUNCIL OF HOMER, ALASKA, CREATING A PUBLIC WORKS CAMPUS TASK FORCE AND ESTABLISHING THE SCOPE OF WORK AND PARAMETERS UNDER WHICH THE TASK FORCE WILL CONDUCT ITS WORK.

WHEREAS, In 2019, the Alaska Division of Geological and Geophysical Surveys published updated Tsunami Inundation Maps for Homer; and

WHEREAS, The information for these maps was derived by numerically modeling worst-case scenarios of inundation from tsunami waves generated by earthquakes and submarine landslides, including local underwater slope failure scenarios for Kachemak Bay; and

WHEREAS, The maximum landslide-generated tsunami, as modeled, shows the existing Heath Street campus of the City's Public Works Department could be flooded by as much as 16.4 – 32.8 feet; and

WHEREAS, Under some scenarios, the first wave could appear within one hour after the earthquake and further, landslide-generated waves could hit low-lying areas while the ground was still shaking from an earthquake; and

WHEREAS, Currently, when a Tsunami Warning is issued, Public Works personnel immediately begin evacuating major pieces of heavy machinery and other mobile equipment from its campus to higher ground and the evacuation process takes at least forty-five minutes; and

WHEREAS, The Department does not currently evacuate materials and supplies, which would be needed in the event an earthquake or tsunami causes damage to the City's water, sewer or road infrastructure; and

WHEREAS, The estimated costs to properly prepare for such recovery, by creating stockpiles of necessary materials, supplies and equipment, would be substantial; and

WHEREAS, For these reasons, risks of personal injury, property damage and even loss of life could be high, either during the tsunami event itself or during recovery.

NOW, THEREFORE, BE IT RESOLVED that the City Council of Homer, Alaska, hereby creates the Public Works Campus Task Force for the following purposes:

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.
    a. Scope of Work –
        i. Review the findings of the 2019 Updated Maximum Estimated Tsunami Inundation report published by the Alaska Division of Geological & Geophysical Surveys
        ii. Develop system for evaluating risks
        iii. Catalog and evaluate risks
    b. Deliverables – Report of Findings of probable risks
    c. Timeframe – Report to be submitted by January 31, 2021
2. Goal #2 – Develop strategies for mitigating identified risks
    a. Scope of Work –
        i. For each risk identified under Goal #1, identify strategies for mitigation, including estimated short term and long term costs
    b. Deliverables – Report summarizing strategies and cost estimates
    c. Timeframe – Report to be submitted by February 28, 2021
3. Goal #3 – Make recommendations.
    a. Scope of Work –
        i. Develop system for evaluating strategies
        ii. Evaluate strategies
    b. Deliverables – Report summarizing evaluation process and identifying preferred options
    c. Timeframe – Report to be submitted by March 31, 2021

BE IT FURTHER RESOLVED the Public Works Campus Task Force will be made up of 7 members, with 3 City Residents, 2 Councilmembers, and 2 City Staff.

BE IT FURTHER RESOLVED, The Mayor will nominate appointees to the Task Force from a list of applicants; nominees must be approved by City Council. All appointees shall serve at the pleasure of the Council and may be removed from their position by a majority of the Council at any time without cause.

PASSED AND ADOPTED by the Homer City Council on this 23rd day of November, 2020.

CITY OF HOMER

KEN CASTNER, MAYOR

ATTEST:

MELISSA JACOBSEN, MMC, CITY CLERK

Fiscal Note: Staff time and advertising.

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