I. ROLL CALL

II. APPROVAL OF AGENDA

III. APPROVAL OF MINUTES
   • 22-09-15 Regular Meeting Minutes

IV. CITIZEN'S COMMENTS

V. COMMUNICATIONS
   • 22-09-30 Post-Storm Technical Site Assessment Nome Harbor/Seawall - USACE
   • 22-10-05 White House National Strategy for the Arctic Region
   • 22-10-08 White House Arctic Strategy puts new emphasis on national security and threats posted by Russia – Alaska Beacon
   • 22-10-13 Strait Science – 6:30pm Thurs Oct 20 – USCG Always Ready/Present

VI. COMMISSIONER UPDATES

VII. HARBORMASTER REPORT
   • 1st QTR F23 HM Report
   • Update on Closing Operations & Maintenance Planning

VIII. PORT DIRECTOR REPORT/PROJECTS UPDATE
   • 22-10-18 Port Director/Projects Status Report
     o Post-Storm Impacts to Port/Harbor Facilities – Damage Submitted to FEMA
     o AAHPA Conference Wrap Up

IX. OLD BUSINESS
   • None

X. NEW BUSINESS
   • Nome Inner Harbor CAP 107 Study Next Steps – Updated Alternatives

XI. CITIZEN'S COMMENTS

XII. COMMISSIONER COMMENTS

XIII. NEXT REGULAR MEETING
   • November 17, 2022 – 5:30pm

XIV. ADJOURNMENT

AFTER THE MEETING - WE WILL BE JOINING THE 6:30PM STRAIT SCIENCE ZOOM CALL FEATURING - ADMIRAL BELL, CDR USCG D17 – ALASKA
The Regular Meeting of the Nome Port Commission was called to order at 6:30 pm by Chairman West at the City Hall Council Chambers.

ROLL CALL
Members Present: Smithhisler, Lean, West, McCann, Sheffield, McLarty

Absent: Rowe

Also Present: Joy Baker

In the audience: Nome Nugget - Megan Gannon

APPROVAL OF AGENDA
Chairman West asked for a motion to approve the agenda.

Motion to approve made by McLarty, seconded by Smithhisler.

At the Roll Call:
Ayes: Lean; West; McCann; Sheffield; McLarty; Smithhisler
Nays: 
Abstain:

The motion CARRIED.

Discussion: none

APPROVAL OF MINUTES
July 22nd, 2022
Motion made by Smithhisler, seconded by McLarty to approve minutes;

Discussion:
• Commissioner Sheffield corrected comments noted in the July 22nd 2022 meeting minutes. Her comment was asking ‘who’ made the decision to make the past USCG visit not a public meeting, not ‘why’ was it not a public meeting.
• McLarty noted the July 22nd 2022 minutes stated the last meeting was at the Public Safety Meeting and needed to be corrected.

At the Roll Call:
Ayes: West; McCann; Sheffield; McLarty; Smithhisler; Lean
Nays: 
Abstain:

The motion CARRIED.
CITIZENS’ COMMENTS

• None

COMMUNICATIONS

• 22-07-08 USCG Hosts Senior Leader Arctic Orientation Visit
• 22-08-03 Next Round of NOAA Chart Cancellations
• 2022 Don Young USCG Authorization Act – Improving Oil Spill Standards (Summary)
• 2022 USCG Authorization Act – Request for Nome’s Written Support

Discussion:

• PD Baker commented that the USCG Authorization Act is on the table for comment prior to going to congress and that the City of Nome will most likely provide comment.
  • Commissioner Sheffield asked if there will be a public meeting giving the community the opportunity to have a group discussion on comments.
  • PD Baker stated she would pass that along to the Mayor.

COMMISSIONER’S UPDATES

• Commissioner Lean stated that the big storm coming up will majorly impact the port from what he feels. He is assisting City officials with setting up an Incident Command System. He is hopeful we will not go as high as +11 ft from MLLW, which is the estimated mid-range of the surge, the minimum is +8ft.
• Commissioner McLarty let the group know that he was running for City Council.

HARBORMASTER’S REPORT

• HM Stotts provided a brief update on the following;
  • New High Mast Lights arriving soon on the last AML barge. Once in-hand we can determine if these will be installed right away, or next spring.
  • SBH lighting issues on Low Dock and East Dock – breakers being tripped every week – we are working with NJUS on the issue.
  • Investigation additional lighting for the floating docks.
  • Seasonal staff; Office Manager- Siobhan Bradly, Deputy Harbormaster – Alex Thomson and Dock Watch – Bob Baranska all worked out very well. Siobhan is now done for the season and Bobs last day is 10.18.22
  • Busy with fuel transfers to Bonanza and NJUS
  • Cruise ROALD AMUNDESEN was just in and was a successful daytrip and PAX turnaround.
  • Thanks to Public Works for assisting with dock surfacing for the cruise ships.
  • Overview of the total 9 cruise ships we have seen throughout the 2022 season.
  • USCG now considers the Port of Nome as a Regulated Facility based on petroleum pipelines.
  • Assisted the USACE, Chris Floyd in capturing offshore soil samples for the expansion project.
  • Build-up of deck runoff and small leaks from various vessels in the Small Boat Harbor has been causing a sheen on the water – staff is dealing with.

Discussion:

• There was some group discussion on the upcoming storm and how everyone thought it was going to impact Nome. Concerns of Front St buildings and possible impacts to those units.
• Commissioner McLarty asked if there would still be a surplus sale this season.
  • HM Stotts responded that most of the impounded items have been paid for and removed from the impound list. The Public Works items have been removed from the list and a future sale for just impounded items is slated for early June 2023.
• Commissioner Sheffield asked about funding for the incinerator the City had planned.
  • PD Baker stated that that funding request was denied and we will be looking for funds.
PORT DIRECTOR’S REPORT

PD Baker provided an overview of the following:

- 22-08-16 Port Director/Project
- AAHPA Conference draft Agenda & Update
- Arctic Deep Draft Port Update
- Arctic Commitment Act (draft bill)

Discussion:

- Chairman West asked about a project closure date for the work Q Trucking is doing on the Thornbush Pad.
  - PD Baker stated that a time extension given, to account for time lost getting customers to relocate large storage items staged within the project area.
- Commissioner McLarty asked if the culvert on the TBS pad would go away and asked for details on what was going to be filled in the project area.
  - HM Stotts responded that the culvert and all low spots between the boat yard and TBS pad would be filled.
  - Chairman West stated he would like to see the low spots filled on the TBS pad with existing material first thing in the spring so we can stop the water from pooling and causing more settlement.
- Chairman West asked on the status with the Corps on the material buildup under the Causeway bridge.
  - PD Baker stated that the Corps is coming up with a plan to use the existing dredge contractor in removing the material in the future.
  - PD Baker commented that the State of Alaska Legislative Grant Agreements have been signed, and funding is in place for covering completion of design, bidding and construction of Phase 1.

OLD BUSINESS

- None

NEW BUSINESS

- Recommend Project(s) for Red King Crab Disaster funding (ADF&G)

Discussion:

- There was group discussion on what items should be investigated to determine ROM costs;
  - Oil Collection Site – additional tank in SBH for increased storage capacity
  - Improving restroom facilities
  - Belmont Beach subsistence landing – improve surfacing at launch site
  - Cranes around Low Dock and East Dock with card access

CITIZENS’ COMMENTS

- Gay Sheffield commented that the NW Campus has an AIS receiving antenna that provides access to marinetraffic.com for the public who can access it for free. Service is not great due to the current position of the antenna, so a higher location to mount would provide better coverage of vessel traffic. Specifically, she asked if they could relocate the antenna to a pole on the Causeway near the new sea ice radar system that just got installed this 2022 season.

COMMISSIONER’S COMMENTS

- McCann commented that he is looking forward to the upcoming Harbormaster conference. Also noted that he hopes someone from the City has gone down west beach to let folks know of the upcoming storm.
• McLarty – No Comment
• Lean – No Comment
• Sheffield – No Comment
• Smithhisler – No Comment
• West commented that Nome has been preparing for the upcoming storm in many ways. Some meetings canceled, folk on the beaches notified, villages notified etc.

ADJOURNMENT
Motion was made by for adjournment at 7:43pm.

APPROVED and SIGNED this 20th day of October 2022.

_____________________________
Jim West, Chairman

ATTEST:

_____________________________
Joy Baker, Port Director
MEMORANDUM FOR RECORD

SUBJECT: Technical Site Assessment of Nome Harbor and Nome Seawall.

1. **Purpose of Inspection and General Information**
A team from the US Army Corps of Engineers Alaska District consisting of Nathan Epps, Scott Haan, Justin Miller and Leif Hammes traveled to Nome on 19 September 2022, to inspect the condition of USACE projects in Nome after the remnants of Typhoon Merbok passed through the region. The storm system passed through the region 17 and 18 September and lingered to the north of the Seward Peninsula on the 19th. Water levels across the western coast of Alaska were elevated by this event with peak water levels in Nome recorded near +10.4 feet MLLW which is approximately 9.1 feet higher than the predicted high tide (Figure 1). The team met with City of Nome Port Director Joy Baker on arrival and conferred with her and Harbormaster Lucas Stotts prior to inspecting USACE projects. The primary concern was the status of the causeway bridge which links the Port of Nome docks to the rest of the community. The team focused on inspecting the bridge that night and the following morning before inspecting the breakwaters and seawall.

On 20 September, the team split up into two groups in the morning with Scott Haan and Leif Hammes focusing on the causeway bridge while Nathan Epps and Justin Miller inspected the causeway and main breakwater with the harbormaster from the harbormaster’s boat. The team regrouped in the afternoon to inspect inner harbor facilities and the seawall. The team then followed up on repairs to the bridge on the morning of 22 September before returning to Anchorage.

2. **Causeway Bridge (Federal)**
The team performed a preliminary inspection of the bridge on the 19th upon arrival and determined that its condition was safe for unrestricted use. Prior to the team’s arrival, the storm had washed newly installed riprap scour protection rock from the top of the north abutment cell over the roadway making it impassable for most vehicles. City staff had mostly cleared this material from the roadway, but the resulting erosion had undermined the jersey barriers channeling traffic on the northern approach to the bridge (Photos 1-4). The City had restricted traffic over the bridge to a maximum of a standard pickup truck or passenger vehicle as a cautionary measure in case erosion had damaged the load carrying capacity of the bridge. No damage was evident on the bridge deck or girders. Damage to the newly installed spray metal coating and paint marks were noted on the bottom of the girders as well as damage to the fuel pipe
hangars and power and communication utilities. The harbormaster reported that during the storm, a container had washed off the nose of the causeway and floated north to pass under the bridge which eventually washed up on the beach inside the harbor. Security camera video of the event was reviewed by the inspection team. A more detailed inspection of the erosion around the abutments was performed on 20 September, with a continued recommendation to allow unrestricted travel across the bridge in accordance with its original design. Further observations from the bridge inspection are summarized in photo captions (Photos 45-64). Preventing future damages of this nature will require sealing the gaps between the sheet pile abutment and the bridge girders, deck and end wall. Water forced through these small openings was the apparent mechanism for the observed erosion (Photos 5 & 6). Potential solutions include welding additional steel plates to these gaps and sealing all seams with welds or pouring a high slump concrete plug into this area and preparing the inside surfaces of the sheet pile with headed studs to engage the concrete plug to the structure.

The bridge superstructure is composed of six galvanized steel girders (Photo 57). Steel girder coatings were damaged by the storm (Photos 57-64). A 2022 project repaired the galvanized coatings for girders 3 through 6. Girders 1 and 2 did not have their coatings repaired in the 2022 project. The galvanized coatings for girders 1 and 2 suffered the most storm damage. The girder 1 coatings and girder 2 coatings should be repaired in addition to the new coatings which were damaged by the storm. The grout pad under the steel cap beam at the Northwest and Northeast corners of the bridge should be repaired (Photos 54-56). Steel plate should be welded over the slits in the sheet pile bulkhead at the Northwest and Northeast corners of the cap beam to prevent further undermining of the grout pad under the cap beam (Photo 53). Additional rip rap erosion protection under the corners of the approach rails at the South end of the bridge (Photos 1 & 2).

3. **Causeway Surface (Non-Federal)**
The driving surface of the causeway experienced erosion from the storm surge. The most significant damage appeared to be loss of fill at the seaward edge of the docks. The fill was pushed up against the container stack at the end of the causeway and a pile of rocks several flats deep was observed (Photos 7 & 8). The depth of this scour was approximately 3 to 4 feet around the southeast corner of the dock estimated from the corrosion line on the inside of the sheets and bollards.

4. **Causeway Spur Breakwater (Federal)**
The causeway spur appeared to be in good condition (Photos 9 & 10). The harbormaster noted that the navigation marker base was leaning more than prior to the storm (Photos 31 & 32).
5. **Causeway Armor (Non-Federal)**
The armor stone on the causeway appeared to be in good condition. It appeared that there are steepened sections near the high mast light poles (Photos 29 & 30) as evidenced by irregularities in the contour at the water line, but otherwise the rock showed good stone to stone engagement. It is not known if these irregularities occurred as a result of the recent storm or if this represents an older stable condition. Armor stone on the inner face of the causeway adjacent to the City Dock was in good condition and did not show any signs of stone movement.

6. **Main Breakwater (Federal)**
The harbormaster noted that after the storm, new rock protrusions appeared on the Main Breakwater. The main breakwater was designed as an overtopping structure and wave forces along the crest during a storm surge were likely to be severe. There is a noticeable drop in the crest elevation of the breakwater at the nose (Photos 11, 18 and 19). The slope of the harbor side of the main breakwater appeared to follow the neat line of the structure with no major movement of stone detectable (Photo 17). Stones on the inside of the harbor showed good stone to stone engagement (Photos 12 – 16). The outer slopes of the breakwater had noticeable signs of stone movement. The new protrusions seen from the inside of the harbor appear to be stones on the breakwater crest that had tilted such that the lighter end rotated upwards. Most likely, this means that stones on the seaward shoulder of the crest were displaced during the storm leaving voids that these stones rotated into (Photos 20 & 21). Overall, the seaward slope of the breakwater appeared to be in good condition (Photo 22). Some areas of the breakwater crest have gaps due to the movement and rotation of the crest stones, but otherwise the breakwater slopes are in good condition (Photos 23 – 26).

7. **Inner Harbor (Federal and Non-Federal)**
The harbormaster reported shoaling in the inner harbor as a result of this storm. A shoal was observed on the west side of the entrance channel to the inner harbor (Photos 37 & 38). Sediment removal operations were underway on the spit south of the inner harbor with trucks hauling load of sand off site. During the storm, material washed over this area and into the inner harbor. Deposits were observed on the barge ramp and along the south bulkhead (Photos 39 & 40). Note that sedimentation of the inner harbor is likely to have affected the area within the authorized channel and maneuvering basin as well as locally funded mooring areas.

8. **Seawall (Federal and Non-Federal)**
The seawall was mostly in good condition following the storm. Sediment had built up along the toe of the structure and a walkable beach was present for the entire length of the project. Continued placement of dredged material in front of this structure will improve stability in future events and help break waves farther offshore. Some isolated areas of stone movement were observed at the old harbor entrance channel (Photo 41) and near the east end of the project (Photo 44). There was evidence of movement of fill
behind the wall. Near the satellite dish, sediment had pushed chain link fences shoreward while near the east end of the project, loss of material removed material causing armor stone to tilt landwards into the fill section. Note that the 460 feet of the federal portion of the seawall appeared to be in good condition with no recommendations for repairs.

9. **Summary and Recommendations**
The overall condition of the USACE projects following the remnants of Typhoon Merbok is good. No deficiencies were noted in need of urgent repair.

Stone movement along the seawall and main breakwater should be monitored. Repairs to the crest of the east end of the seawall in the Non-Federal portion of the project are recommended.

Current plans to expand the Port of Nome facilities with new structures will require removal of the main breakwater within the next ten years if fully implemented. The main breakwater functions in its current condition and repairs should be deferred until such time that it becomes apparent that the main breakwater will be required for navigation at the Port of Nome. Should this change in plans occur, additional stone to repair the crest of the main breakwater should be placed.

Repairs to the bridge girder spray metallized coating, the grout pads under the north abutment cap beam and a fix to close the gaps in the bridge abutment should be performed in the next construction to prevent future loss of abutment fill and to minimize potential corrosion on the girders.

10. For additional information please contact Lewis Nathan Epps (phone 907-753-5760), email Lewis.N.Epps@usace.army.mil).

Lewis Nathan Epps  
Chief, Hydraulics &  
Hydrology Section

Encs
2 Maps
1 Figure
64 Photos
Table of Contents

Executive Summary .................................................................................................................................................. 3

Introduction: Our Vision for the Arctic .................................................................................................................. 5

Changing Conditions in the Arctic ......................................................................................................................... 5

Our Approach: Strategic Pillars and Guiding Principles ....................................................................................... 7

Pillar 1—Security: Develop Capabilities for Expanded Arctic Activity ................................................................. 8

Pillar 2—Climate Change and Environmental Protection: Build Resilience and Advance Adaptation, while Mitigating Emissions .................................................................................................................. 10

Pillar 3—Sustainable Economic Development: Improve Livelihoods and Expand Economic Opportunity .......................................................................................................................................................... 11

Pillar 4—International Cooperation and Governance: Sustain Arctic Institutions and Uphold International Law ............................................................................................................................................... 13

The Way Forward .................................................................................................................................................... 14
Executive Summary

The United States seeks an Arctic region that is peaceful, stable, prosperous, and cooperative. The National Strategy for the Arctic Region articulates an affirmative U.S. agenda over the next ten years, from 2022 to 2032, to realize this vision. This strategy, an update of its 2013 predecessor, addresses the climate crisis with greater urgency and directs new investments in sustainable development to improve livelihoods for Arctic residents, while conserving the environment. It also acknowledges increasing strategic competition in the Arctic since 2013, exacerbated by Russia’s unprovoked war in Ukraine, and seeks to position the United States to both effectively compete and manage tensions.

Realizing our vision during this dynamic and challenging period will require U.S. leadership at home and abroad. We will advance U.S. interests across four mutually reinforcing pillars spanning both domestic and international issues.

- **Pillar 1—Security:** We will deter threats to the U.S. homeland and our allies by enhancing the capabilities required to defend our interests in the Arctic, while coordinating shared approaches with allies and partners and mitigating risks of unintended escalation. We will exercise U.S. government presence in the Arctic region as required to protect the American people and defend our sovereign territory.

- **Pillar 2—Climate Change and Environmental Protection:** The U.S. government will partner with Alaskan communities and the State of Alaska to build resilience to the impacts of climate change, while working to reduce emissions from the Arctic as part of broader global mitigation efforts, to improve scientific understanding, and to conserve Arctic ecosystems.

- **Pillar 3—Sustainable Economic Development:** We will pursue sustainable development and improve livelihoods in Alaska, including for Alaska Native communities, by investing in infrastructure, improving access to services, and supporting growing economic sectors. We will also work with allies and partners to expand high-standard investment and sustainable development across the Arctic region.

- **Pillar 4—International Cooperation and Governance:** Despite the challenges to Arctic cooperation resulting from Russia’s aggression in Ukraine, the United States will work to sustain institutions for Arctic cooperation, including the Arctic Council, and position these institutions to manage the impacts of increasing activity in the region. We also seek to uphold international law, rules, norms, and standards in the Arctic.

This strategy is intended to serve as a framework to guide the U.S. government’s approach to tackling emerging challenges and opportunities in the Arctic. Our work will be guided by five principles that will be applied across all four pillars.

- **Consult, Coordinate, and Co-Manage with Alaska Native Tribes and Communities:** The United States is committed to regular, meaningful, and robust consultation, coordination, and co-management with Alaska Native Tribes, communities, corporations, and other organizations and to ensuring equitable inclusion of Indigenous Peoples and their knowledge.
• **Deepen Relationships with Allies and Partners:** We will deepen our cooperation with Arctic Allies and partners: Canada, the Kingdom of Denmark (including Greenland), Finland, Iceland, Norway, and Sweden. We will also expand Arctic cooperation with other countries that uphold international law, rules, norms, and standards in the region.

• **Plan for Long-Lead Time Investments:** Many of the investments prioritized in this strategy will require long lead times. We will be proactive, anticipating changes coming to the Arctic over the next several decades and making new investments now to be prepared.

• **Cultivate Cross-Sectoral Coalitions and Innovative Ideas:** The challenges and opportunities in the Arctic cannot be solved by national governments alone. The United States will strengthen and build on coalitions of private sector; academia; civil society; and state, local, and Tribal actors to encourage and harness innovative ideas to tackle these challenges.

• **Commit to a Whole of Government, Evidence-Based Approach:** The Arctic extends beyond the responsibility of any single region or government agency. U.S. Federal departments and agencies will work together to implement this strategy. We will deploy evidence-based decision-making and carry out our work in close partnership with the State of Alaska; Alaska Native Tribes, communities, corporations, and other organizations; and local communities, as well as with the U.S. Congress.
Introduction: Our Vision for the Arctic

The Arctic—home to more than four million people, extensive natural resources, and unique ecosystems—is undergoing a dramatic transformation. Driven by climate change, this transformation will challenge livelihoods in the Arctic, will create new economic opportunities, and could intensify strategic competition among countries. Alaska makes the United States an Arctic nation, which instills authority and responsibility for the stewardship and protection of this region, especially during this period of change.

Despite current tensions stemming from Russia’s unprovoked, full-scale invasion of Ukraine, the United States seeks an Arctic region that is peaceful, stable, prosperous, and cooperative. A peaceful Arctic will have guardrails to manage competition and resolve disputes without force or coercion. Stability results from countries acting responsibly and in accordance with international law, rules, norms, and standards, including freedom of navigation. A prosperous Arctic features healthy and vibrant Arctic communities and sustainable economic growth. We aim to secure these objectives in the U.S. Arctic and throughout the region, working primarily with our allies and partners to solve shared challenges. Russia’s unprovoked war of aggression against Ukraine has rendered government-to-government cooperation with Russia in the Arctic virtually impossible. Over the coming decade, it may be possible to resume cooperation under certain conditions. Russia’s continued aggression makes most cooperation unlikely for the foreseeable future.

Our vision for the Arctic protects and advances U.S. interests in the region, including providing for homeland security and defense; mitigating and building resilience to climate change and ecosystem degradation; expanding U.S. economic opportunities; protecting and improving livelihoods, including for Alaska Native communities; and upholding international law, rules, norms, and standards across Arctic countries.

This National Strategy for the Arctic Region updates its 2013 predecessor and builds on established U.S. Arctic region policy\(^1\) to reflect changes to the strategic environment and to set forth the U.S. government’s approach to realizing this vision. This strategy addresses the climate crisis with greater urgency and directs new investments in responsible economic development to improve livelihoods for Arctic residents, while conserving the environment. It also acknowledges increasing strategic competition in the Arctic since 2013 and seeks to position the United States to both effectively compete and manage tensions. The strategy articulates an affirmative U.S. agenda for the Arctic over the next ten years and provides a framework for how the U.S. government will respond to emerging challenges and opportunities in the region.

Changing Conditions in the Arctic

Climate change in the Arctic—and the resulting diminishing sea ice, thawing permafrost, and ice sheet degradation—creates a cascade of difficulties, as well as some new possibilities. The Arctic Council affirmed in 2021 that the Arctic is warming three times faster than the rest of the

---

world. Climate change is making the Arctic more accessible than ever before, while contributing to rising global sea levels, coastal erosion, more frequent and severe wildfires, and damaged ecosystems. These consequences threaten the livelihoods of Arctic residents and the traditional lifestyles of Alaska Native communities. Changing fish and wildlife migration patterns, combined with the high cost of non-subsistence foods, have exacerbated food insecurity and made cultural traditions more difficult to carry on. Coastal erosion, permafrost thaw, and flooding in Alaska are damaging infrastructure and will force some communities to relocate or invest heavily in infrastructure resilience.

A more accessible Arctic could also create new economic opportunities. Low population densities over a vast geography, high cost of doing business, and lack of financial resources have contributed to long-standing challenges, including limited infrastructure and a reliance on the oil and gas and commercial fishing sectors. These constraints have, in turn, kept cost of living high and stifled opportunities to develop other industries. Diminishing sea ice is gradually opening new shipping routes and could spur economic development. The Arctic’s significant deposits of in-demand minerals essential to key technology supply chains have piqued the interest of governments and businesses across the world. As ice in the Arctic Ocean diminishes and as fish migration patterns shift, commercial fisheries may move into new areas. These changes could generate economic benefits for Arctic residents if appropriately managed, in consultation with those populations. New opportunities will also bring additional challenges, from the potential for new illegal, unreported, and unregulated fishing and greater environmental degradation to risks to maritime navigation, a greater likelihood of accidents, and changes to traditional lifestyles.

The Arctic’s growing strategic importance has intensified competition to shape its future as countries pursue new economic interests and prepare for increased activity. Russia has invested significantly in its military presence in the Arctic over the last decade. It is modernizing its military bases and airfields; deploying new coastal and air defense missile systems and upgraded submarines; and increasing military exercises and training operations with a new combatant-command-equivalent for the Arctic. Russia is also developing new economic infrastructure in its Arctic territories to develop hydrocarbons, minerals, and fisheries and is attempting to constrain freedom of navigation through its excessive maritime claims along the Northern Sea Route. Russia’s war in Ukraine has raised geopolitical tensions in the Arctic, as it has globally, creating new risks of unintended conflict and hindering cooperation. The war has focused Russian military attention on Ukraine, and sanctions levied against Russia following its invasion could complicate Russia’s Arctic economic development and military modernization efforts. Russia’s war in Ukraine redoubled NATO’s unity and resolve and spurred efforts to expand NATO resourcing. It has also enhanced unity with our Arctic partners, as evidenced by Finland and Sweden’s prospective NATO accession.

The People’s Republic of China (PRC) seeks to increase its influence in the Arctic through an expanded slate of economic, diplomatic, scientific, and military activities. It has also emphasized its intention to play a larger role in shaping regional governance. Over the last decade, the PRC has doubled its investments, with a focus on critical mineral extraction; expanded its scientific activities; and used these scientific engagements to conduct dual-use research with intelligence or military applications in the Arctic. The PRC has expanded its icebreaker fleet and sent naval vessels into the Arctic for the first time. Other non-Arctic countries have also increased their presence, investments, and activities in the Arctic.
Our Approach: Strategic Pillars and Guiding Principles

Realizing our vision of a peaceful, stable, prosperous, and cooperative Arctic during this dynamic and challenging period will require U.S. leadership at home and abroad. We will advance U.S. interests across four mutually reinforcing pillars spanning both domestic and international issues. Many of the investments we undertake in the U.S. Arctic will benefit not only residents in Alaska, but also our ability to pursue economic and environmental opportunities and project influence and security across the region. Together, these pillars guide the United States’ affirmative agenda in the Arctic region for the next decade.

- **Pillar 1—Security**: We will deter threats to the U.S. homeland and our allies by enhancing the capabilities required to defend our interests in the Arctic, while coordinating shared approaches with allies and partners and mitigating risks of unintended escalation. We will exercise U.S. Government presence in the Arctic region as required to protect the American people and defend our sovereign territory.

- **Pillar 2—Climate Change and Environmental Protection**: The U.S. Government will partner with Alaskan communities and the State of Alaska to build resilience to the impacts of climate change, while working to reduce emissions from the Arctic as part of broader global mitigation efforts, to improve scientific understanding of climate change, and to conserve Arctic ecosystems.

- **Pillar 3—Sustainable Economic Development**: We will pursue sustainable development and improve livelihoods in Alaska, including for Alaska Native communities, by investing in infrastructure, improved access to services, and support for growing economic sectors. We will also work with allies and partners to expand high-standard investment and sustainable development across the Arctic region.

- **Pillar 4—International Cooperation and Governance**: Despite the challenges to Arctic cooperation resulting from Russia’s aggression in Ukraine, the United States will work to sustain institutions for Arctic cooperation, including the Arctic Council, and position these institutions to manage the impacts of increasing activity in the region. The United States will also work with Arctic Allies and partners to pursue a common approach to advance shared interests and to uphold international law in the region.

This strategy is intended to serve as a framework to guide the U.S. Government’s approach to confronting the new challenges and opportunities in the Arctic. As we turn this strategy into a reality, our work will be guided by five principles, which we will apply across all four pillars.

- **Consult, Coordinate, and Co-Manage with Alaska Native Tribes and Communities**: The United States is committed to regular, meaningful, and robust consultation, coordination, and, as appropriate, co-management with Alaska Native Tribes, communities, corporations, and other organizations—both to ensure Alaska Native communities are partners in decisions affecting them and also because we recognize that Alaska Native experience and knowledge is essential to the success of this strategy. We will support an equitable partnership, including by integrating co-production of
knowledge and Indigenous Knowledge into federal processes and by supporting Tribal self-determination and opportunity.

- **Deepen Relationships with Allies and Partners:** The Arctic is home to some of the United States’ closest allies and partners. Our North American neighbor and Ally, Canada and our European Allies and partners, the Kingdom of Denmark (including Greenland), Finland, Iceland, Norway, and Sweden are essential counterparts in realizing our shared vision for the Arctic. We will continue to deepen our cooperation and improve interoperability and information-sharing. We will also expand Arctic cooperation with other countries that uphold international law, rules, norms, and standards in the region.

- **Plan for Long-Lead Time Investments:** Many of the investments prioritized in this strategy will require long lead times. We will be proactive, anticipating changes coming to the Arctic over the next several decades and making new investments now to be prepared. Among other investments, we will procure additional icebreakers, enhance communications and maritime transportation infrastructure, support communities to build climate resilience, and invest in scientific research.

- **Cultivate Cross-Sectoral Coalitions and Innovative Ideas:** The challenges and opportunities in the Arctic cannot be solved by national governments alone. The United States will strengthen and build on coalitions of private sector; academia; civil society; and state, local, and Tribal actors to encourage and harness innovative ideas to tackle these challenges. We will capitalize on institutions, such as the Ted Stevens Center for Arctic Security Studies, to build strong networks of domestic and international leaders to advance expertise and cooperation in the Arctic. We will also work with stakeholders across the Arctic to facilitate economic, environmental, and cultural linkages.

- **Commit to a Whole-of-Government, Evidence-Based Approach:** The Arctic region extends beyond the responsibility of any single region or government agency. U.S. Federal departments and agencies will work together, through coordinating bodies like the Arctic Executive Steering Committee and the National Security Council, to provide the resources, support, and expertise required to implement this strategy. We will deploy evidence-based decision-making and carry out our work in close partnership with the State of Alaska; Alaska Native Tribes, corporations, and other organizations; and local communities, as well as with the U.S. Congress.

**Pillar 1—Security: Develop Capabilities for Expanded Arctic Activity**

Our highest priority is to protect the American people and our sovereign territory and rights. We are committed to the security of our treaty allies and to supporting our partners in the region. Our security in the Arctic is inclusive of many interests, from national defense and homeland security to safe commercial and scientific activities. However, the Arctic environment poses region-specific challenges that require tailored technology, assets, infrastructure, training, and planning. To secure our interests as attention, investments, and activity grow in the Arctic over the coming decades, the United States will enhance and exercise both our military and civilian capabilities in the Arctic as required to deter threats and to anticipate, prevent, and respond to both natural and
human-made incidents. We will improve our understanding of the Arctic environment and develop whole-of-government capabilities to support expanding activity in the U.S. Arctic region. We will deepen cooperation with Arctic Allies and partners in support of these objectives and to manage risks of further militarization or unintended conflict, including those resulting from geopolitical tensions with Russia. These improvements will contribute to both national security and safety and livelihoods in the State of Alaska.

**Strategic Objective 1.1: Improve Our Understanding of the Arctic Operating Environment**
A deeper understanding of the Arctic operating environment is needed to inform real-time decision-making and respond to changing conditions. We will invest in modernized domain awareness to detect and track potential airborne and maritime threats and improve sensing and observational capabilities, including for sea ice, ship traffic, and weather. For example, we will collaborate with Canada on North American Aerospace Defense Command modernization. We will support expanded observations, modeling, and analytic capabilities to enhance our ability to use gathered data to predict the changing operational environment. We will also improve communications and positioning, navigation, and timing capabilities by developing communications and data networks capable of operating in the northern latitudes. We will work to improve Arctic observing, mapping, and charting; weather, water, and sea ice forecasting; subseasonal and seasonal prediction; emergency preparedness posture; and satellite coverage to enable efficient commerce and to ensure maritime and air safety.

**Strategic Objective 1.2: Exercise Presence to Support Priority Goals**
The United States will maintain and, as driven by requirements, refine and advance military presence in the Arctic in support of our homeland defense, global military and power projection, and deterrence goals. We will continue to conduct regular, transparent, and consistent training, exercises, and episodic deployments with our allies and partners, as well as independently. We will enhance homeland security through measures such as effective maritime security, law enforcement, search and rescue, and emergency response. This includes expanding the U.S. Coast Guard icebreaker fleet to support persistent presence in the U.S. Arctic and additional presence as needed in the European Arctic. We will make targeted investments to strategically enhance security infrastructure as required to enable these aims, while building the resilience of critical infrastructure to protect against both climate change and cyberattacks.

**Strategic Objective 1.3: Maximize Unity of Effort with Allies and Partners**
We will maximize our cooperation with Arctic Allies and partners to enhance our shared security and deter aggression in the Arctic, especially from Russia. We will coordinate closely with our allies and partners to deepen our understanding of Arctic security challenges, improve our collective deterrent and ability to respond to contingencies, and jointly develop and lead shared approaches to address security challenges together, including through expanded information sharing in the region. To improve operational familiarity with the Arctic region, including cold weather operations and interoperability, we will increase our focus on combined exercises and training. We will undertake calibrated and coordinated activities with NATO Allies and Arctic partners with the aim of both defending NATO’s security interests in the region while also reducing risks and preventing unintended escalation, especially during this period of heightened tension with Russia. We will also continue to partner with the State of Alaska and Alaska Native and rural communities on activities such as combined exercises and training on cold weather operations and interoperability.
Pillar 2—Climate Change and Environmental Protection: Build Resilience and Advance Adaptation, while Mitigating Emissions

Climate change generates greater impacts in the Arctic than in many more temperate regions, yielding unstable terrain, vulnerable coasts, changing ecosystems, and a worsening biodiversity crisis. More than 60 percent of Alaska Native communities are considered environmentally threatened due to climate change. Historically, these communities have faced barriers to accessing federal resources. We will support efforts to build Alaskan communities’ resilience in the face of dramatic changes on the Arctic’s horizon. We will also reduce emissions of greenhouse gases from the Arctic as part of global mitigation efforts, invest in scientific research, and protect and conserve Arctic ecosystems. In so doing, we will partner with Alaska Native Tribes, communities, corporations, and other organizations; the State of Alaska; and public, private, academic and non-governmental sectors at home and abroad to harness the full range of knowledge and resources required to meet these goals.

Strategic Objective 2.1: Advance Community Adaptation and Climate Resilience
Climate change is forcing some Alaskan communities to relocate entirely, move multiple buildings and homes, or protect vulnerable infrastructure while remaining in place. Communities also face other climate challenges, including adverse impacts on food security due to changes in the availability of and access to subsistence resources and increased vulnerability to drought and wildfires. We will support communities as they face these challenges, providing data and financial and technical assistance to enable community adaptation and resilience planning. We will collaborate with Alaska Native communities to determine preferred solutions for these and other climate challenges, and we will coordinate across federal, state, and local agencies to define dedicated roles and responsibilities to deliver whole-of-government support.

Strategic Objective 2.2: Pursue International Initiatives to Mitigate Emissions in the Arctic
The United States will work to reduce localized emissions of carbon dioxide, methane, and black carbon, through both existing and new bilateral and multilateral initiatives as appropriate to complement our global mitigation efforts. Mitigation should also include protection of habitats that store carbon, such as forests, tundra, and coastal marshes.

Strategic Objective 2.3: Expand Research to Better Understand Climate Change and Inform Policy Decisions
It is essential to better understand the ways the Arctic environment is rapidly changing, to anticipate future changes, and to understand the Arctic’s impact on climate change globally and extreme events regionally. The United States will advance our monitoring and predictive capacity with better data collection and integration, new observational tools and data, and

---

2 “Environmentally threatened” communities are defined by the Denali Commission’s Village Infrastructure Protection program as communities experiencing significant impacts to infrastructure from erosion, flooding, and/or permafrost degradation.
improved regional and global climate models. We will also support research on marine ecosystems, wildlife, and fisheries; the design and construction of Arctic infrastructure; and health crises afflicting Arctic populations. To support science-based decisions, we will also explore research to improve our understanding of issues such as the potential emissions and health threats resulting from permafrost thaw. International scientific partnerships and co-production of knowledge with Alaska Native communities will have a multiplier effect on this research. Coordinated research on the environmental and societal impacts of climate change in the Arctic and the Arctic’s role in global climate dynamics should be guided by the Interagency Arctic Research Policy Committee’s (IARPC) and the U.S. Arctic Research Commission’s (USARC) research plans.3

**Strategic Objective 2.4: Conserve and Protect Arctic Ecosystems, including through Indigenous Co-Production and Co-Management**

The United States must continue to pursue multilateral initiatives and research to conserve and protect Arctic biodiversity, ecosystems, habitats, and wildlife, expanding on concepts like the Northern Bering Sea Climate Resilience Area.4 Conservation in the Arctic is consistent with the America the Beautiful Initiative5, which sets out our national goal of conserving 30 percent of America’s lands and waters by 2030, as well as our international commitments to conservation and climate. We will work to preserve essential habitats, halt biodiversity loss, and manage natural resources using an ecosystems-based approach. We will accelerate work to clean up contaminated lands in Alaska. We will also explore nature-based solutions to reduce flood and erosion risk, increase ecosystem resilience, store carbon, and deliver co-benefits such as habitat protection. To carry out this work, we will support co-production of knowledge to develop, as appropriate, co-managed conservation initiatives. We will ensure we have the capabilities required to prepare for, prevent, and respond to oil spills and other environmental disasters in the Arctic and to reduce harmful pollutants and improve waste and water management.

**Pillar 3—Sustainable Economic Development: Improve Livelihoods and Expand Economic Opportunity**

While diminishing sea ice is a stark indicator of accelerating climate change, it will offer increased accessibility in the Arctic and could create new economic opportunities. We will pursue these potential opportunities, while also protecting the environment. We will work closely with allies and partners to support high-standard investment and sustainable development across the region. The U.S. government will help create the conditions to catalyze responsible, inclusive, and transparent economic development in Alaska and across the Arctic. In particular, we will invest in infrastructure, improve access to services, and support the development of industries that expand economic opportunity for local communities, support the energy

---

transition, and build the resilience of U.S. supply chains. We will carry out this work without compromising sensitive Arctic ecosystems and in partnership with Indigenous and local communities. We recognize that the Alaskan economy, like the economies of several other areas in the Arctic, still depends heavily on revenue from hydrocarbon development. We will work with the State of Alaska to support efforts to diversify its economy; create a just energy transition, including for impacted workers; and ensure energy security and affordability during this transition. We will make inclusive economic growth a priority and work to improve livelihoods in Alaska, including for Alaska Native communities.

Strategic Objective 3.1: Invest in Infrastructure
In 2021, the United States enacted the largest investment in physical infrastructure in nearly a century, including historic investments in transportation, broadband, clean water, energy infrastructure, and resilience. These investments will boost economic capacity and productivity and support millions of jobs and trillions of dollars in economic activity over the next decade, including in Alaska. We will support development of much-needed infrastructure in Alaska that serves responsible development, food security, stable housing, climate resilience, and national defense needs as driven by requirements. In particular, we will invest in advanced telecommunications infrastructure in Alaska, including broadband and 5G for Alaska Native and rural communities, recognizing this technology will serve as a platform for a range of needs, from the expansion of the knowledge economy to remote education and telemedicine. We will support development of a deep draft harbor in Nome, as well as development of smaller ports, airfields, and other infrastructure, in consultation with the State of Alaska and Alaska Native communities, to tackle the high cost of living, facilitate responsible development, and improve incident response and recovery while minimizing impacts to the surrounding environment and local communities. As we pursue these infrastructure investments, we will explore opportunities to leverage public-private partnerships and innovative financing mechanisms. We will seek multiplier effects through investments that benefit Alaskan communities while also enabling the United States to project presence and influence across the region. We will work with Arctic Allies and partners to protect critical infrastructure and improve investment screening for national security purposes.

Strategic Objective 3.2: Improve Access to Services and Protect Subsistence Lifestyles and Cultural Traditions
In pursuing sustainable development that is equitable and aligned with Alaska Native communities’ needs, we will protect subsistence lifestyles and improve access to reliable and affordable services, including healthcare, education, energy, housing, water and sanitation, and public safety. We will renew efforts to provide climate-resilient water and sanitation infrastructure for the 31 Alaska Native communities still without dependable in-home running water. We will also work to improve access to affordable energy by developing renewable energy generation, storage, transmission, and distribution. We will explore opportunities to expand Indigenous cooperative and co-management agreements and to fight the epidemic of missing and murdered Indigenous peoples. Indigenous Knowledge will inform decisions about Alaska’s fish and wildlife resources and help navigate the threats posed to Alaska’s subsistence lifestyles.
Strategic Objective 3.3: Develop Emerging Economic Sectors in Alaska
U.S. Government agencies will expand support for sustainable development of renewable energy, critical minerals production, tourism, and knowledge economy sectors in Alaska with the aim of creating sustainable growth and well-paying jobs in Alaska and responsibly developing alternative industries in Alaska to support a just energy transition, while protecting biodiversity and promoting co-ocean use. We will explore new programs to catalyze private sector investment in Alaska. We will seek to strengthen the resilience of U.S. supply chains by exploring the potential for sustainable and responsible critical mineral production in Alaska while adhering to the highest environmental, labor, community engagement, and sustainability standards. Development efforts will be carried out in partnership with the private sector; State of Alaska; Alaska Native communities; and stakeholders, including representatives of labor, impacted communities, and environmental justice leaders, and will be accompanied by assessments of their associated environmental impacts.

Strategic Objective 3.4: Work with Allies and Partners to Increase Responsible Arctic Investment, including in Critical Minerals
In the broader Arctic region, we will work with our allies and partners—including through the potential use of relevant U.S. Government mechanisms and development programs, such as the Export-Import Bank, U.S. International Development Finance Corporation, and U.S. Trade and Development Agency—to expand private sector-led investment and pursue sustainable economic development in the Arctic, including in critical minerals. We will explore methods to enable enhanced U.S. government support for strategic investments and to incentivize private sector investment in the Arctic. We will strengthen capacity across the Arctic region to screen prospective investments based on national security, environmental sustainability, and supply chain resilience concerns. Across our development efforts, we will continue to employ the best practices that distinguish the United States and our partners from our competitors: transparency and accountability; high environmental, labor, community engagement, and sustainability standards; equity and ethics; and local partnerships supported by sound, sustainable financing.

Pillar 4—International Cooperation and Governance: Sustain Arctic Institutions and Uphold International Law
The United States seeks to uphold international law, rules, norms, and standards; close potential gaps in governance; preserve freedom of navigation; and protect U.S. sovereign rights, including with respect to the extended continental shelf. The United States values the unique spirit of international cooperation that has generally characterized the Arctic since the end of the Cold War. Russia’s brutal war in Ukraine has made this cooperation in the Arctic virtually impossible in the Arctic at present. However, maintaining cooperation with our allies and partners in the near-term remains essential to advancing our objectives for the region. Over the past quarter century, the United States has been integral to the development of the governance architecture enabling this regional cooperation. The United States helped create the Arctic Council and the Arctic Coast Guard Forum and chaired negotiations that produced a series of international
agreements pertaining to the Arctic region, such as the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean (CAO Fisheries Agreement).

As the Arctic becomes more accessible and as strategic competition intensifies, we will maintain our leadership role in the Arctic. We will sustain the existing multilateral fora and legal frameworks dedicated to solving shared challenges in the region, recognizing that Arctic countries have the primary responsibility for addressing these challenges. While emphasizing existing frameworks, we will remain open to developing new bilateral and multilateral partnerships as needed to advance scientific cooperation and other U.S. interests in the Arctic.

**Strategic Objective 4.1: Sustain the Arctic Council and Other Arctic Institutions and Agreements**

The United States will seek to maintain the Arctic Council as the principal multilateral forum for the Arctic by working through the Council whenever possible, in line with broader U.S. policy on Russia, and making funding for U.S.-led Arctic Council activities more consistent. We will also work to advance implementation and enforcement of existing international agreements, including the CAO Fisheries Agreement, the International Maritime Organization’s Polar Code, and the Agreement on Enhancing International Science Cooperation in the Arctic. For other Arctic institutions, such as the Arctic Coast Guard Forum and the Forum of Arctic Research Operators, we will expand U.S. engagement and leadership, pursue new partnerships and arrangements that advance shared interests, and prepare for increased and evolving activity in the region, including to manage increased maritime activity, promote sustainable economic development, and advance conservation and scientific research. We will bring whole-of-government tools to bear to support this work, including by expanding our diplomatic presence across the Arctic with additional personnel and posts.

As noted above, Russia’s war of aggression against Ukraine has rendered government-to-government cooperation with Russia in the Arctic virtually impossible at present. Over the coming decade, the United States recognizes that it may be possible for some cooperation to resume under certain conditions. In the meantime, we will work with our allies and partners and other governments that uphold the rule of law to sustain the effectiveness of the Arctic Council and other Arctic institutions and to hold all members accountable for their responsibility to uphold international law, rules, and standards globally.

**Strategic Objective 4.2: Protect Freedom of Navigation and Continental Shelf Limits**

The United States will protect navigation and overflight rights and freedoms across the Arctic and will delineate the outer limits of the U.S. continental shelf in accordance with international law as reflected in the United Nations Convention on the Law of the Sea (UNCLOS). We will also continue to support joining UNCLOS and to vigorously defend U.S. interests, which are best served by widespread adherence to the international rule of law.

**The Way Forward**

The Arctic is undergoing transformational change. The Arctic Ocean may see ice-free summers as soon as 2030, flooding and wildfires will increase in frequency, new economic opportunities could emerge, and geopolitical tensions may grow. The United States, must therefore prepare for and shape this transformation by taking action now to manage these challenges and pursue new
opportunities. This strategy lays out the U.S. approach for doing so. By working together with a range of partners, including Arctic Allies and partners, the State of Alaska, Alaska Native communities, local governments, businesses, and universities, we will undertake a whole-of-government endeavor to realize an Arctic region that is peaceful, stable, prosperous, and cooperative.
White House Arctic strategy puts new emphasis on national defense and threats posed by Russia

BY: YERETH ROSEN - OCTOBER 8, 2022 5:00 AM
A new Arctic strategy released on Friday by the White House acknowledges some big changes in the region over the past decade – the rise of military threats posed by Russia, the largest Arctic nation.

A heavier emphasis on national defense is the biggest difference between the new Biden administration strategy and its predecessor, released in 2013 by the Obama administration.

The 15-page document said the strategy “acknowledges increasing strategic competition in the Arctic since 2013, exacerbated by Russia’s unprovoked war in Ukraine, and seeks to position the United States to both effectively compete and manage tensions.”

Security is identified as the first of four strategic pillars guiding White House policies on Arctic affairs. The others are climate change and environmental protection, sustainable economic development and international cooperation and governance.

While the 2013 strategy also identified security as one of the policy pillars, that document did not mention Russia as a security threat. The new strategy, in contrast, makes multiple specific references to Russia.

“Russia’s war of aggression against Ukraine has rendered government-to-government cooperation with Russia in the Arctic virtually impossible at present,” the new strategy says in one of those references.

To achieve national strategic goals, the new White House document lists several concrete policies.

To help Alaska Native communities threatened by climate change, for example, the administration plans to make it easier to get access to federal resources to build resilience. That includes more coordination work with tribal governments, Native corporations, the Alaska state government and other entities, the document says.

To promote economic development, the White House “will support development of much-needed infrastructure in Alaska that serves responsible development, food security, stable housing, climate resilience, and national defense needs as driven by requirements,” the document says. It lists telecommunications and the planned deep-draft
port in Nome as key infrastructure investments.

To boost security and protect the national interest, “the United States will enhance and exercise both our military and civilian capabilities in the Arctic as required to deter threats and to anticipate, prevent, and respond to both natural and human-made incidents,” the new strategy says.

Alaska’s two U.S. senators gave the new strategy mixed reviews.

In statements, Sen. Lisa Murkowski and Sen. Dan Sullivan, both Republicans, said they welcomed the new emphasis on national defense.

Sen. Lisa Murkowski said the strategy contains many “positive elements.”

“For example, I’m pleased with the administration’s emphasis on security, infrastructure, climate adaptation and resilience, greater consultation with the State of Alaska and Alaska Native Tribes and Corporations, and its elevation of Arctic diplomacy through the creation of the Arctic Ambassador position – all of which I have called for,” she said in a statement. The heavier emphasis on military security is appropriate, as has been demonstrated by the recent incident in which two Russians sailed over the Bering to Alaska's St. Lawrence Island to request asylum, she said.

However, she criticized it for what she characterized as too little discussion of resource development and an omission of oil and gas development.

Sullivan, in his statement, said he appreciated the “full-throated support for increasing America’s operational capabilities, infrastructure, and Coast Guard and naval vessels in the Arctic, and for elevating the voices and interests of the people who actually live in the Arctic—Alaskans who’ve inhabited these lands for millennia.”

However, he faulted the document for its emphasis on climate change, which he said shows the Biden administration “will continue to focus on shutting down responsible resource development, like oil, natural
gas, and critical minerals in Alaska.”

Sullivan, in his statement, dismissed the 2013 strategy as being “filled with mostly pictures,” though that Obama administration document did not include a single image other than the presidential seal. However, a Department of Defense Arctic strategy released in November of 2013 did contain illustrations.
ALWAYS READY, ALWAYS PRESENT
US COAST GUARD IN THE ARCTIC

Thursday, October 20 • 6:30pm
The US Coast Guard has been in Alaska since 1867 and maintains a continuous presence in the region. With increased worldwide attention on Alaska’s Arctic, US Coast Guard missions, relationships, and presence are more important than ever. The US Coast Guard Commander for Alaska will discuss 2022 events and operations, including noteworthy ship patrols. Hear plans for what to expect this winter and into 2023 in the Bering Strait region.

Join us via Zoom:
https://tinyurl.com/3j56b9vf
Meeting ID: 841 2875 9898, Passcode: 911234
Or call: 253-215-8782
Memo

To: Glenn Steckman – City Manager
From: Lucas Stotts – Harbormaster
CC: Joy Baker – Port Director; Nome Port Commission
Date: October 5, 2022
Re: 1st Quarter Report F2023

Office/Accounting:
Seasonal coverage worked out for the July-Sept portion of the front desk customer service, but we are still hopeful for a year-round candidate for the new position. Both Alex Thomson, Deputy Harbormaster and Bob Baranska, Dock Watch have done a great job this summer season assisting in tracking user’s gear, freight, billing and various maintenance tanks around the facility, oil spill cleanup and more.

Port Staff have been busy planning, budgeting and dealing with compliance issues along with reconciling customer accounts. Additional statistical efforts are also underway to facilitate tracing the Ports fiscal health, including a thorough scrub of our accounts receivable list to collect on past due accounts.

Operations:
July – September is the busiest time of the seasonal port activities, mainly, in the number of commodity vessels we receive over these months. During this quarter, we had 8 of our 9 cruise ships (the 9th on Oct 1st) as well as dozens of commercial freight vessels each week in and out of the facility. The Port of Nome saw several large southerly low-pressure systems build in the region which cause elevated surge and wave impact, preventing operations at the Causeway facility. 2022 has seen an increase in large storms vs previous seasons, some of which have come earlier than previous years and have had more intensity/ high water and waves.

This quarterly period proved to be another very busy season for moving gravel and rock with Brice, Bering Pacific, Ridge and others transporting various gravel materials across the region. We have been advised there are several large projects planned for the 2023 season, which upon award, could potentially be another record gravel export season for Nome.

A total of 9 cruise ships made port calls in Nome in the 2022 season. This is down from a once scheduled 23 ships for the season, most of which were cancelled due to having Russia ports on their original sailing voyage. Shoreside operations for each of these calls went very well for vessels moored at the Causeway docks, as well as those at anchor that were lightering PAX to the Floating Docks in the Small Boat Harbor.
As cruise ships calling on Nome get larger, we are able to accommodate some by allowing them to lay across multiple docks. This is possible due to the mooring limitations being based on vessel length, not draft (depth). This allows for more safe and secure passenger transfers and provisioning operations. Still, there were several calling on Nome in 2022 that exceeded port specs as they were over 500ft in length, and beyond the safe navigational draft of -20ft MLLW, and therefore had to lighter PAX to the Small Boat Harbor Floating Docks.

The changing climate, marine environment and more vessel activity in the region all contribute to the Port of Nome receiving more requests for port calls, and longer durations at the dock, all necessary to accommodate vessel resupply and refueling, maintenance, repairs, and exchanging crew and gear. Increased shoulder seasons are allowing more vessels to operate in the Bering Sea earlier in the spring and later into the fall.

Most commercial freight operations expect to be done in the region and head south for the winter in early October. I anticipate our local gold dredges to stay in the water until the ice forces them out sometime in late October or November.
Maintenance:

Port staff will continue or have done the work on all below maintenance items throughout the summer season into Fall.

- Work with users to find the best place to store dredge and fishing vessels for the winter months on Port property that do not interfere with fall operations and still ensures they can launch early in the spring without being blocked.

- Finalize all summer and winter commercial and local storage billing.

- Work with users on major facility cleanup planned for spring of 2023, delivering notices that some items will need to be move in the spring to allow for future development and a new layout.

- Fall facility annual cleanup.

- Maintain surfacing for cargo laydown areas for village freight on Lower IP. Add surfacing material to low areas and rock to cruise ship landing areas for reduced mud.

- Rebuild dock faces and lowland lay-down areas after large September storm that washed away material.

- Clean sand out from South Wall area of Small Boat Harbor that packed under walkway and onto walkway area.

- Installed tide gauge boards to give staff and users a visual indicator to the current water levels in the facility.

- Continue to weld and service hand rails on South Wall ladders.

- Replace remaining ring buoy lines with line bags to provide further reach and protection room UV rays.

- Perform annual maintenance on port vehicles and install new radios and hand lighting units.

- Removed all existing lighting units to remove hazard from High Mast Light poles. New HML’s are arriving on AML’s last barge of the season and will be installed this fall or first thing in the spring.

- GARCO cleanup in preparation for winter use of Port and PWR for gear storage.

- Surface grading and washout repair from heavy commercial equipment traffic and fall erosion due to storms.

- Constructed new VHF radio bank at Port Office with inventory and maintenance spreadsheet to track long term issues and servicing needs.

- Work with PND to determine need for High Ramp Dolphin repair to rubber and through-bolts for pilings.

Vehicle Status:

2002 FORD F350 Flatbed (Fair) – New water cooler/tune up in fall. Needs new bed (rust from calcium/sand)

2005 CHEVY Trailblazer (Bad) – Blown engine, inoperable, moved to the surplus pile

2010 Guardian SAR/Workboat (Good)

2010 Guardian Trailer (Good)

2012 GMC Sierra Crew Cab 4X4 (Good)

2014 FORD F250 4X4 (Good)

2020 TuffBoat Work Skiff (Good)

2020 TuffBoat Work Skiff Trailer (Good)
Memo

To: Glenn Steckman – City Manager
From: Joy L. Baker – Port Director
CC: Mayor Handeland & Common Council; Port Commission
Date: October 18, 2022
Re: Monthly PD Report/Capital Projects Update – October 2022

Administrative:
The Alaska Association of Harbormasters & Port Administrators (Harbor) Conference that was to be held in Nome late last month, was relocated to Anchorage to free up hospitality resources locked down in Nome by the conference. Although disappointing to not host the group in Nome, we did find an available meeting space at the Captain Cook Hotel, and the conference turned out well. Final agenda attached.

In hindsight, the association board of directors, the membership, and my team were very thankful the conference was moved, with many making supportive comments during the event, and personnel from many state/federal agencies speaking on the storm and it’s impacts. Additionally, once the conference was relocated, a staff member at the Port of Valdez, decided to pull together numerous valuable items for a silent auction to be held the night of the final banquet (Thursday), with all proceeds going to the Western Alaska Disaster Recovery Fund, being managed by the Alaska Community Foundation.

Causeway:
Arctic Deep Draft Port – Nome Modifications Pre-Construction Engineering & Design (PED):
The City Council approved awarding the NOAA NMFS environmental permitting application work to PND, and the subcontractor is making good progress on this fast-track task they have been assigned. The City is preparing the Work-In-Kind (WIK) package that contains efforts taken on by the City that the Corps would’ve done under normal circumstances. These costs therefore qualify as part of the City’s cost-share to the Corps under the PED agreement for Pre-Construction, Engineering & Design. (PND’s subcontractor continues making progress on the NMFS permitting application, and the Project Manager and myself have been collaborating to adjust various milestone dates, as well as discussing longer-term issues that involve the 2nd and 3rd phases of the project.

Local Service Facilities (LSF) Design Integration:
Design teams have increased meetings to twice weekly, with one-on-one calls occurring frequently to work through smaller issues, as the 95% Nov deadline approaches. As the pace accelerates, a couple of more complex issues have required more communication than normal, in an effort to avoid delays. These primarily involve locations where the designs intersect, requiring a great deal of back checks to ensure accuracy and clarity in the design. Both teams are excited to see the 100% design milestone on the near-horizon (Dec), with the package then proceeding on to many layers and milestones through the Corps’ program requirements to construct a large General Investigations project.
Sediment at Causeway Bridge and Bridge Repairs:
The Corps contractor (Bristol Construction) has completed the bridge repairs, which resulted in a much shorter closure of the Causeway bridge than the contractor anticipated. Public Works has been dressing up the road shoulders and bridge approaches as manpower and weather have allowed. The project to remove sediment from under the bridge is expected to be awarded throughout the winter and performed in the summer of 2023. (Post-storm damage determined by Corps to be mostly erosion of subsurface materials, with scour protection rock washing up and across the road. Bridge was cleared for normal use - City Public Works crews cleaned up debris and repositioned jersey barriers.)

Arctic Port Reception Facility – Solid Waste Disposal (Incinerator):
This project has been submitted to the US DOT MARAD PIDP program for funds to finish design, procure, ship and construct a solid waste disposal facility to incinerate regulated waste from galleys in foreign ships. The demand for this type of waste disposal is growing with all the cruise ship traffic transiting the Arctic. The PIDP funds are expected to cover 80% of the costs, while a separate grant submitted on 13 May 2022 to the Denali Commission, is expected to cover the 20% match funds. PIDP awards expected to be announced in Sep of 2022. (Denali Comm. did not fund, stipulating it should be user funded.)

Harbor:
Inner Harbor CAP 107 Study (Deepen/Widen the Inner Basin):
After a long hiatus, a call was held with the new Project Manager, Chief of the PM’s, and the Civil Works Chief, to determine how best to move forward with this project. As the 3-year study window expires 6 May 2023, the goal is to get 95% design drawings completed by 6 Dec, hold a Tentatively Selected Plan (TSP) Milestone by 14 Dec 2022, and submit final report by 20 Apr 2023.

Launch Ramp Replacement Project:
Bathymetric surveyors are in town to evaluate areas of shoaling in the inner harbor to allow the City to determine the level of concern based on survey results. One of these areas is the approach to the ramps on the west side of the river. (More to come on results of the hydrographic surveys.)

Port Industrial Pad:
West Nome Tank Farm (Property Conveyance):
After some delay, the City/NJUS/Port will virtually meet with the Air Force and the Alaska Dept of Environmental Conservation (ADEC) during the week of 24 Oct 2022. The intent is to work through areas of conflict within the draft Quit Claim Deed provided by the Air Force, in order to reach an agreement with all parties, and finalize the conveyance of the property.

Thornbush Laydown Site Development:
The City was recently advised that this project was not awarded a grant from the US DOT RAISE Grant program, but additional funding sources continue to be sought.

Port Rd. Improvements (ADOT Project cost-shared with City/Port):
Recent information from DOT’s Northern Region website, indicates construction solicitation will be advertised in March 2023, with construction to follow project award.

*Italics reflects no change in project information from previous report.*
Additional details available upon request.
ALASKA ASSOCIATION OF HARBORMASTERS AND PORT ADMINISTRATORS
ANNUAL FALL CONFERENCE
HOSTED BY THE PORT OF NOME

MONDAY, SEPTEMBER 26 - FRIDAY, SEPTEMBER 30, 2022
Hotel Captain Cook
Anchorage, Alaska
The City/Port of Nome is proud to welcome you to the Annual Alaska Association of Harbormasters & Port Administrators Conference in Anchorage, Alaska, this 26th of Sept 2022.

First and foremost, we commend each of you for the speed in which travel plans were adjusted for a combined 80+ people, materials and supplies, and on very short notice. As you know, this was deemed a necessary action after the remnants of Typhoon Merbok slammed into Western Alaska. It was quick thinking by the Board, even while some communities in the region were still in flood conditions and housed in evacuation shelters. Therefore, on behalf of Mayor Handeland and the Nome Common Council, a sincere thank you goes out to the AAHPA Board for prioritizing the needs of Western Alaska, and enabling Nome’s limited resources to be utilized in support of critical assessments and recovery that was just beginning.

As Nome’s theme was intended to be on the Arctic, this storm is a vivid example of how things continue to change in the Arctic. The stronger storms have historically occurred in and around the fall time of the year, with lighter storms occurring in mid-summer, but the patterns are changing, as well as the frequency of the storms. As a novice, yet a witness to the changing weather, I look forward to presentations on weather.

However, the weather is not the only thing changing in the Arctic, as vessel traffic has doubled since 2009, and shows no signs of reversing that trend. As the ice continues to recede, shoulder seasons expand each year, with research, government, tankers, cruise ships and cargo moving into the region sooner, and staying longer.

The number of cruise ships transiting Arctic waters has dramatically increased, with Nome having more than 23 calls originally scheduled for 2022, and only those with port calls in Russia cancelling. The 2023 schedule shows a similar number, and we are hearing cruise companies are building more ships with ice-hardened hulls. Speaking of Russia, we all know our military is watching this region with open eyes, and understands the infrastructure that is necessary to support our maritime defense assets. This too is changing, and although it doesn’t happen quickly, it is progressing, and Alaska’s ports/harbors will also experience the effects of this fleet migration.

Yes, the Arctic is changing, and these changes impact not only ports/harbors in the immediate area, but across the entire state. These vessels stop in ports on northbound and southbound voyages, adding to the traffic already seen by those facilities, and thereby driving the industry to provide more services, hire more staff, improve and expand their facilities, which increases maintenance costs - all requiring the support of healthy funding streams.

We look forward to engaging with all of you, and hope you enjoy the speakers, exhibitors and each other.

Thank you for hanging with us through the venue change; and a HUGE thanks to Angel Holbrook, Secretary, and Portland Highbaugh, our AML planner, for turning this thing on a dime and making it happen!

LUCAS STOTTS – HARBORMASTER

JOY BAKER – PORT DIRECTOR
2021-22 AAHPA BOARD OF DIRECTORS

President (2023)
Bryan Hawkins (Homer)

Vice President (2022)
Peggy McLaughlin (Dutch Harbor/Unalaska)

Treasurer/Secretary (2023)
Stan Eliason (Sitka)

Director Seat 4 (2022)
Vacant

Director Seat 5 (2023)
Norm Regis (Seward)

Director Seat 6 (2022)
Tony Schinella (Cordova)

Director Seat 7 (2023)
Shawn Bell (Haines)

Director Seat 8 (2022)
Dave Borg (Whittier)

Past President
Carl Uchytil (Juneau)

Executive Secretary
Angel Holbrook (Ketchikan)

PORT OF NOME AND CITY STAFF

Joy Baker
Port Director

Lucas Stotts
Harbormaster

Siobhan Bradley
Office Manager

Caitlin LeClair
Accounting Clerk

Alex Thompson
Deputy Harbormaster

Bob Baranska
Dock Watch

Cole Cushman
Public Works Director

Chris Schuneman
Public Works Foreman

Gray Harrison
City IT

Cheryl Thompson
City Manager Executive Assistant

Marguerite La Riviere
Library Director

Thank you to the AAHPA Board of Directors, and the City and Port of Nome staff for their work on this year’s conference. The conference would not have been possible without the hard work and dedication of each and every one of them.
2022 CONFERENCE SPONSORS

ARCTIC CHAR - IĞALUQPIK - CONFERENCE

Scottco Marine

moffatt & nichol

ARCTIC FOX - TIGIĞANNIAQ - LUNCHEON SPONSOR

Jacobs

ARCTIC TERN - TIQITAAQ - REGISTRATION WEBSITE

COWI

BELUGA WHALE - SITUAQ - BREAKFAST SPONSORS

Graphite One

TRANS PAC MARINAS

BROWN BEAR - AKOAQ - WELCOME RECEPTION

HDR

CARIBOU - TUTU - EXHIBITOR RECEPTION

QUINTILLION

QuintillionGlobal.com  #PoweredByQuintillion
KING CRAB - QAQUQ - CONFERENCE ATTENDEE GIFTS

CROWLEY®
Crowley Fuels Alaska

ALASKA MARINE LINES™

KETCHIKAN PORTS AND HARBORS

MUSKOX - UMIŅMAQ - AAHPA BANQUET

PND
Engineers, Inc.

PTARMIGAN - AĞAZHAGIQ - BREAKS

NORTHERN LOGISTICS, LLC
GLOBAL DIVING & SALVAGE, INC.

WALRUS - UĞUAQ - AUDIO VISUAL

COOK INLET TUG & BARGE
THE AAHPA WOULD LIKE TO THANK THE FOLLOWING SPONSORS FOR THEIR GENEROUS DONATIONS TO OUR SCHOLARSHIP FUND:

Pacific Pile & Marine

Transpacific Marinas
# AGENDA

**UNLESS OTHERWISE STATED, ALL CONFERENCE SESSIONS WILL TAKE PLACE IN THE MIDDECK AT THE HOTEL CAPTAIN COOK**

### Monday, September 26: Pre-Conference

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Hosted By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1700 - 2000</td>
<td>WELCOME RECEPTION</td>
<td>HDR Alaska</td>
</tr>
<tr>
<td></td>
<td><strong>Quarter Deck - Hotel Captain Cook</strong></td>
<td></td>
</tr>
<tr>
<td>0700 - 0800</td>
<td>BREAKFAST AND REGISTRATION</td>
<td>Transpac Marinas</td>
</tr>
<tr>
<td>0800 - 0815</td>
<td>OPENING REMARKS AND WELCOME</td>
<td>John Handeland, Mayor, City of Nome</td>
</tr>
<tr>
<td>0815 - 0830</td>
<td>U.S. SENATOR DAN SULLIVAN</td>
<td></td>
</tr>
</tbody>
</table>
| 0830 - 0945 | PHASED DESIGN AND CONSTRUCTION OF AN ARCTIC DEEP DRAFT PORT AT NOME | Jathan Garrett, AK Corps District  
**Joy Baker, City of Nome PM**  
**Bryan Hudson, PND Engineers**  
**Ken Morton, Nome Joint Utility**  
**Karl Hulse, CRW Engineers** |
| 0945 - 1015 | BREAK                                      | Global Diving     |
| 1015 - 1100 | CGCYBER: WHY CYBER MATTERS                 | Captain Leanne Lusk - Sector Anchorage - Captain of the Port |
| 1100 - 1200 | COAST GUARD DISTRICT 17 - ALASKA           | Nathan Moore, District 17 CDR  
**Captain Michelle Bas, Chief of Prevention** |
| 1200 - 1330 | LUNCH                                     | Jacobs Engineering |
| 1330 - 1415 | CALL OF THE PORTS (PART ONE)               |                   |

### Tuesday, September 27

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Hosted By</th>
</tr>
</thead>
<tbody>
<tr>
<td>0830 - 0945</td>
<td>2022 AAHPA ANNUAL CONFERENCE - HOSTED BY THE PORT OF NOME</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Speaker/Details</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1415 - 1455</td>
<td><strong>ECONOMIC TRENDS, CHALLENGES &amp; OPPORTUNITIES</strong></td>
<td>Mike Fisher, VP, Northern Economics</td>
</tr>
<tr>
<td>1455 - 1525</td>
<td><strong>BREAK</strong></td>
<td>Hosted by Global Diving</td>
</tr>
<tr>
<td>1525 - 1605</td>
<td><strong>TRANSFORMING ARCTIC COMMUNICATIONS WITH FIBER</strong></td>
<td>Ben Cuttriss, VP of Strategic Initiatives, Quintillion</td>
</tr>
<tr>
<td>1700 - 2000</td>
<td><strong>EXHIBITORS RECEPTION</strong></td>
<td>Hosted by Quintillion, Whale’s Tail - Hotel Captain Cook</td>
</tr>
</tbody>
</table>

**Wednesday, September 28**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>0700 - 0800</td>
<td><strong>BREAKFAST AND REGISTRATION</strong></td>
<td>Hosted by Graphite One</td>
</tr>
<tr>
<td>0800 - 0845</td>
<td><strong>GRAPHITE ONE NOME PROJECT UPDATE</strong></td>
<td>Mike Schaffner, Sr. Vice President of Mining</td>
</tr>
<tr>
<td>0845 - 0925</td>
<td><strong>PORTS &amp; HARBORS INFRASTRUCTURE</strong></td>
<td>Commissioner Ryan Anderson, State of Alaska, DOT&amp;PF</td>
</tr>
<tr>
<td>0925 - 1000</td>
<td><strong>INFRASTRUCTURE FUNDING PROGRAMS</strong></td>
<td>Garrett Boyle, Executive Director, Denali Commission</td>
</tr>
<tr>
<td>1000 - 1030</td>
<td><strong>BREAK</strong></td>
<td>Hosted by Northern Logistics</td>
</tr>
<tr>
<td>1030 - 1115</td>
<td><strong>LIVING IN A CHANGING ARCTIC</strong></td>
<td>Gail Schubert, President/CEO, Bering Straits Native Corporation</td>
</tr>
<tr>
<td>1115 - 1200</td>
<td><strong>WHARF CONSTRUCTION ALTERNATIVES AT THE PORT OF ALASKA</strong></td>
<td>David Ames, Program Manager PAMP, Jacobs Engineering</td>
</tr>
<tr>
<td>1200 - 1330</td>
<td><strong>LUNCH - ON YOUR OWN</strong></td>
<td></td>
</tr>
<tr>
<td>1330 - 1415</td>
<td><strong>ARCTIC WATCH</strong></td>
<td>Steve White, Executive Director, Marine Exchange of Alaska</td>
</tr>
</tbody>
</table>
1415 - 1500  CHANGING ARCTIC FISHERIES
Duane Stevenson, NOAA Marine Fisheries

1500 - 1530  BREAK
Hosted by Northern Logistics

1530 - 1630  CALL OF THE PORTS (PART TWO)

---

Thursday, September 29

0700 - 0800  BREAKFAST AND REGISTRATION

0800 - 0845  COAST GUARD - SECTOR ANC - OPERATIONS UPDATE & MARINE TRANSPORTATION SYSTEM RECOVERY
Captain Leanne Lusk - Sector ANC, Captain of the Port
Dan Payne, Marine Transportation System Recovery Specialist

0845 - 0920  NOAA CHARTING & NAVIGATION UPDATES
Hadley Owen, Navigation Manager, NOAA Alaska

0920 - 1000  PORT & HARBOR INFRASTRUCTURE FUNDING
Catherine Simons, USDOT - MARAD

1000 - 1030  BREAK
Hosted by Matson

1030 - 1110  ABANDONED AND DERELICT VESSELS
Aaron Timian, Program Coordinator, Alaska DNR - ADV

1110 - 1200  CRUISE TRENDS & THE ARCTIC
Renee Limoge Reeve - VP of Gov’t & Community Relations, CLIA

1200 - 1330  LUNCH - ON YOUR OWN

1330 - 1410  A TRANSITIONING BERING STRAIT REGION
Gay Sheffield – UAF Alaska Sea Grant

1410 - 1450  HARBOR MONITORING & CLEAN HARBOR ACTIVITIES IN ALASKA’S HARBORS
Maryann Fidel; Sarah Aspens - Water Quality, Alaska DEC

1450 - 1520  BREAK
Hosted by Matson

1520 - 1600  POLLUTION SURVEY & PILOT PROJECT
Tav Ammu, Alaska Clean Harbors
1730 - 2030  BANQUET - RAFFLE - AWARDS
49th State Brewing
Hosted by PND Engineers

Friday, September 30

SESSIONS TODAY WILL TAKE PLACE IN THE ENDEAVOR ROOM ON THE LOWER LEVEL OF THE HOTEL CAPTAIN COOK

0700 - 0800  BREAKFAST

0800 - 0845  MAINTAINING ONGOING OPERATIONS DURING MODIFICATIONS AT THE PORT OF ALASKA
David Ames, Program Manager PAMP, Jacobs Engineering

0845 - 1045  GENERAL MEMBERSHIP MEETING

1045  CLOSING COMMENTS
3 New Alternatives
Nome 107
Where we are

• 3-year study limit expires 6 May 2023, and study terminates.
• Need TSP on 14 Dec 2022 to accommodate post TSP edits DQC, ATR Public Review.
• Funding: after budgeting for ATR, DQC.....PDT has ~150K to complete.
• Short on time, Short on funding.
FWOP
Alt A

- Approach and turn basin for West Dock
- Snake River Channel
Alt B

- Adds area off Belmont point, no engineering justification.
- Adds cost without a clear benefit
- Would need an Other social effects/safety justification
- Easy approach is as a Betterment
Alt C

- East ramp offset removes need for a Programmatic Agreement for Archeology. More than 6 months required.
Paths forward

• Add “new” alternative(s) to previous alternatives, screen all old alts out.

  Minimizes cost and time-less alternatives less analysis
  Verifying Policy/NEPA compliance

• Analyze all new alternatives—more time and effort due to additional analysis

• Need a TSP alternative identified by ~1\textsuperscript{st} of Dec.

• 408 study path.