

City Manager
Tom Moran

Port Director
Joy Baker

Harbormaster
Lucas Stotts



Nome Port Commission
Jim West, Jr., Chairman
Charlie Lean, Vice Chairman
Derek McLarty
Shane Smithhisler
Scot Henderson
Russell Rowe
Gay Sheffield

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**NOME PORT COMMISSION
RESCHEDULED REGULAR MEETING AGENDA
THURSDAY, JUNE 14, 2018 @ 5:30 PM
COUNCIL CHAMBERS IN CITY HALL**

I. ROLL CALL

II. APPROVAL OF AGENDA

III. APPROVAL OF MINUTES

- 18-04-19 Regular Meeting (Revisions)
- 18-05-17 Regular Meeting

IV. CITIZEN'S COMMENTS

V. COMMUNICATIONS

- Legislative Consultants – End of 2018 Session Report
- 18-05-22 Mayor Letter to Governor Walker – F19 ADDP \$1.6M
- 18-05-23 Mayor Letter to Congressional Delegation – USCG Regulations
- 18-06-01 Elements of Mining/Projects by Region – Alaska Business Monthly
- 18-06-07 House Transportation & Infrastructure -Subcommittee Hearing on USCG and Arctic Maritime Transportation

VI. CITY MANAGER REPORT

- 18-06-08 Manager Report

VII. HARBORMASTER REPORT

- Update on Operations Planning & Repair/Maintenance

VIII. PORT DIRECTOR REPORT/PROJECTS UPDATE

- 18-06-11 Port Director/Projects Status Report
 - Draft Agreement for Nome Wave/Data Buoy Deployment w/ AOOS, NOAA and Marine Exchange

IX. OLD BUSINESS

- None

X. NEW BUSINESS

- Draft Ship Waste Incinerator Proposal – Bristol Engineering
- Coastal Response Research Center – Dispersant Use in Arctic Waters

XI. CITIZEN'S COMMENTS

XII. COMMISSIONER COMMENTS

XIII. NEXT REGULAR MEETING

- July 19, 2018 - 5:30 pm

XIV. ADJOURNMENT

**MINUTES
NOME PORT COMMISSION
REGULAR MEETING
April 19th, 2018**

The Regular Meeting of the Nome Port Commission was called to order at 7:05 pm by Vice-Chairman Lean in Council Chambers at City Hall, located at 102 Division Street.

ADMINISTRATION OF OATH OF OFFICE

Commission Seat "F" Gay Sheffield was sworn in by Harbormaster Stotts.

ROLL CALL

Members Present: C. Smithhisler, C. Lean, C. Henderson; C. Sheffield; C. McLarty;

Absent: C. West, C. Rowe

Also Present: Tom Moran, City Manager; Lucas Stotts, Harbormaster; Joy Baker, Port Director (telephonically);

In the audience: Zoe Grueskin, KNOM; Sandra Medearis, Arctic News;

APPROVAL OF AGENDA

Vice-Chairman Lean asked for a motion to approve the agenda:

A motion was made by Smithhisler and seconded by Henderson.

At the Roll Call:

Ayes: Lean, Henderson, Sheffield, McLarty, Smithhisler

Nays:

Abstain:

The motion **CARRIED**.

APPROVAL OF MINUTES

March 8, 2018 Regular Meeting

Vice-Chairman Lean asked for a motion to approve the minutes:

A motion was made by Sheffield, seconded by McLarty to approve the minutes.

At the Roll Call:

Ayes: Henderson, Sheffield, McLarty, Smithhisler, Lean

Nays:

Abstain:

The motion **CARRIED**.

CITIZENS' COMMENTS

None

COMMUNICATIONS

- 18-03-13 Alaska DOT letter to Mayor re: Port Rd Reconstruction
- 18-04-02 USCG Nome Front Range Light Land Lease Renewal
- 18-04-06 Alaska DHS letter to Manager re: Cape Nome PW17(4) Amendment
- 2018 Port of Nome Ship Schedule

Discussion:

PD Baker explained the renewal on the USCG Front Range Light was an annual event, that also takes place for the rear light near the cemetery.

CITY MANAGER'S REPORT *(18-04-16 Report)*

CM Moran touched on the port-related items in his report, namely; the City Admin's meeting with USCG Admiral McAllister and Admiral Bell regarding their upcoming Change of Command, and the Mayor's and Port Director's scheduled attendance at the Arctic Encounter Symposium on 19-20 April 2018. He relayed a few important facts regarding the ongoing F19 budget process currently underway with the Council, with specific attention to the Nome Public Schools request, and how that impacts the City's budget. As an FYI, he advised the group to let all port users they encounter, that they should be reviewing their assessed tax notices and if any appeal is needed, they MUST be filed by early next week 23-24 April 2018.

Discussion:

Sheffield inquired as to why the USCG leadership didn't visit in summer; put simply, their command changes over in springtime, but their leadership has been in Nome during summer months.

HARBORMASTER'S REPORT *(Verbal)*

HM Stotts started back full-time on 1 April and began performing various maintenance tasks in preparation for the 2018 season. Seasonal staff hiring has been initiated, with Caitlin LeClair hired as Office Manager. This leaves just the Dock Watch position to be filled as Chris Schuneman is returning from Public Works in the role of Assistant Harbormaster. Vessels continue to schedule on the calendar for dock space at the Port, and work is ongoing with collections, office cleaning/organizing, 2018 documents prep, etc. There are frequent requests for snow removal in and around the storage areas, with the significant amount of snowfall – these are being responded to in a timely fashion as weather permits.

Discussion:

Lean inquired about the vessel on Belmont Beach that is slowly being uncovered with the snow melt. Henderson inquired whether dock reservations were in line with previous years – haven't received any for fuel/cargo barges, but it's really too early to tell. Further, Henderson asked about homeported numbers in 2011-2017 vessel tracking stats, and how they've dropped significantly. HM Stotts replied that the number of dredges has declined, but the size of the vessels has increased so utilization of harbor space is higher. Henderson requested whether we could isolate annual revenue by user group; PD Baker replied that the data is in the system, but it will take staff time to extract it correctly – we can look into it. Baker added that the sailboats are NOT included in the homeported stats, and there are frequently many in the harbor. These are considered transient vessels and accounted for as such. Henderson also inquired as to what percentage of the sales tax revenue received into the general fund is port-generated or port-related. CM Moran replied that while we can isolate what companies report what each month, it's difficult to determine how much of those dollars are a result of port activity. There are records that reflect what the port charges for taxable services, but that's all we could clearly identify. Henderson reiterated that basing fiscal decisions on the operating revenue and expenses, without having the data on what sales tax is generated by the port, is not a clear picture. Lean added that there is also the fishery processing that generates revenue outside of tariff fees, but is specifically port-related. CM Moran indicated that as an

enterprise fund, the port is supposed to sustain itself, and whether that allows a subsidy from the general fund, would have to be investigated. Sheffield mentioned this year's lack of ice and how that has allowed the research vessel activity to occur in the region – the NOAA vessel *Oscar Dyson* is operating off of Emmonak, which is extremely unusual this time of year.

PORT DIRECTOR REPORT (Projects Update) (18-04-16 Report)

PD Baker touched on the AOOS buoy mentioned in the report that has been loaded onto the NOAA Ship *Fairweather* for transit to Nome. An AOOS technician will travel to Nome in July and assist Port staff in activating and launching the buoy (with the Port's vessel *Guardian*). This will provide real-time current and wave data.

Q Trucking has completed the dredging excavation in the Snake River – we await the bathymetric survey to be done in June, when the surveyor is in town for the federal dredging contract. Dredge spoils have all been hauled the project site (near the old state trailers).

The USAF has reversed their position on the City paying for a 2nd EBS survey – and AF staff will now be sending someone up in early June to perform the survey. Once complete, the report will be submitted for approval with a request for immediate property conveyance to the City.

Cameras are all installed and operational – I will be working with the finance office to submit the final grant closeout reports.

Discussion:

None

OLD BUSINESS There was none

NEW BUSINESS

Draft Port & Harbor F19 Budget

Discussion:

Lean opened the discussion on the draft budget – suggesting maybe more ratcheting could be done to reduce expenses further? PD Baker replied that had already been done through two previous iterations, and the next option would likely affect staff and annual maintenance. Henderson asked for a mile high view of the general changes from the previous year. CM Moran deferred to PD Baker, who indicated the revenue is typically comparable to previous years unless there is a specific source anticipated that will significantly increase a revenue stream (not currently foreseen in F19). Expenses are done in a similar fashion, but have many more components that drive forecasting, such as capital improvements, repairs, and maintenance, along with operating expenses that typically see annual increases, like, fuel, insurance, labor and materials. Hence, the deficit forecasted for F19 as several of the deferred maintenance projects are now coming due.

Henderson asked if it was correct to assume if revenue was covering operating expenses; PD Baker said in general terms and most years, yes. However, capital expenses and maintenance projects frequently put us in a deficit. Henderson stated he was still confused, as there was a surplus at the end of the F17 fiscal year, so where did that go? PD Baker reiterated points from the tariff discussions that the F17 surplus was used to reduce the existing balance owed to the City's General Fund on previous debt. Henderson reiterated, in his opinion, the general fund sales tax monies and significant surplus the City is sitting on is better used to cover Port capital costs and deferred maintenance when needed, instead of raising tariff rates. CM Moran

acknowledged the point, but reiterated that as an enterprise fund, it will need to be determined if there are restrictions as to how long the City can or will fund the Port, open-ended. It's possible we can run diagnostics to speculate on how much sales reported are generated at the port but there's no way to determine accuracy unless the information is reported in such a manner.

Lean added to the conversation that he did not agree with that approach, as the City has a number of demands on it for services, such as education, to name a big one. The City is making quality of life decisions in Nome about other services as well, and he doesn't think it's reasonable for the Port to achieve all of its goals as desired. And it's up to the Port Commission to provide a sustainable maintenance schedule and give sound recommendations and advice to the Council on budgetary issues, but to say that sales tax wouldn't happen without the port, I'm not ready to go that far. I think we do contribute more than the average person sees it, but I think we're right in there wrestling for the City's general fund with other competing interests, so I voted to raise the tariff and that is why. Sheffield asked for verification if the sales tax was not included in the revenue used at the Port. PD Baker clarified that all revenue generated through tariff fees is received into a separate bank account under the Port of Nome, but all expenses are paid by the general fund, and then reimbursed by the Port on a revolving basis as funds arrive. All of the sales tax generated at the Port goes directly into the general fund as City revenue, and is never counted as Port. CM Moran stated that the crux of the matter is isolating what tax revenue is generated by the port across all services is a difficult task, but the sales tax generated by taxable port services might be a discussion item as that is a clear number that is reported and paid monthly to the City.

McLarty asked if the amount of sales tax generated by the Port can be determined, then couldn't there be some type of donation made by the City to the Port? Anything down that road would require investigation and discussion with Council.

After additional back and forth on the draft budget before the group, the conclusion was reached to remove the cost-share match for the Garco project;

Motion:

The following motion was moved by Henderson and seconded by McLarty:

Recommend the Nome Common Council adopt the draft F19 Port of Nome Operating & Capital Budgets with removal of the \$180,000 cost-share match for the Garco Building Renovation Project (as the federal grant application was not awarded).

At the Roll Call:

Ayes: Henderson, Sheffield, McLarty, Smithhisler, Lean

Nays:

Abstain:

The motion **CARRIED**.

USCG Commercial Vessel Regulations – Nome Offshore Mining Fleet

Discussion:

McLarty asked if a consensus was reached to put a request on City letterhead to the USCG to support some type of action. Lean stated he doesn't think a conclusion was reached but he has a few ideas; 1/no action or support, 2/petition Congress to relocate the boundary line, 3/request a review for a special ruling for a hybrid regulation for what was required on those vessels, specific to this unique fleet at Nome. Lean said in

the USCG work session, there appeared to be some reception to a potential review for considering the uniqueness of this fleet. McLarty added that both options 2 and 3 would take some time to achieve, but he is in hopes that an effort can be made to address the issue without compromising safety or adding liability.

Lean understood there to be an incredible long shot to get the boundary line moved, as Congress will give significant credibility to the USCG's position on that issue. So the question is, how much time and political capital should we devote for this, and it is certainly not without risk. However, it is less than it is in Cook Inlet where the line has been moved. Sheffield asked if there was an element of decreased safety for vessels not meeting the load line requirement. Lean replied that it hasn't really been enforced so I don't think there is a change. HM Stotts added that the USCG Sector has been advising the stricter regulations were coming for the larger mining vessels, and official notice was given in the fall of 2017 for enforcement in the 2018 season. He added that the USCG advised if the boundary line was pushed further off the beach, none of these requirements (load line, survey or certificate of inspection) would be required from large vessels working inside that boundary. McLarty clarified that you still have to be surveyed to be insured, which he thinks must be fairly safe if they're willing to insure you for millions of dollars.

Henderson made comments about the amount of money the miners indicated they were spending in Nome, while we are agonizing over the economic challenges, this could be part of the answer. PD Baker commented that putting the Port/City weight behind a boundary change may likely be a wasted effort, but there does seem to be room for discussion for this unique fleet to be given a review for some type of modified regulation specific to their location and operation. Therefore, a suggestion would be to have staff approach Alaska Delegation staff on an informal basis – to vet the potential path of modified regulations.

Lean stated he believes the best option to pursue would be to request consideration be given to adopting some alternative compliance for this fleet. McLarty stated he felt we have an obligation to try and help the users of the Port as they spend a lot of money to use the facility and even if there isn't a likely positive outcome, that we should show our support by taking this action. McLarty further inquired as to whether Dave Young, one of the owners of Arctic Sea Mining, actually gave the Port of Nome some money to show their support and their future investments into the Port? PD Baker replied, they have not given any cash, but they did sign a document that if the City received the Tiger grant for \$13M, they would contribute a certain amount in exchange for dolphins along their property - so they were getting something in exchange for their money, but only if we received the Tiger funds, which we did not. McLarty added, "So they offered?" to which Baker responded, "Yes, they did".

After a little further discussion, it was agreed that PD Baker would make an informal inquiry to the delegation staff, and report back to the Commission.

CITIZENS' COMMENTS

Mark Johnson, speaking as a private citizen, echoed McLarty statement regarding the insurance requirement for the large mining vessels; for insurance companies to insure them, they spend \$300-500K to get into compliance in order to qualify for coverage. In his opinion, these insurance companies aren't going to cover these vessels if unsafe.

Mark's additional comments were budget related – he feels the earlier discussion were more conceptual related in talking about economic conditions. Realistically the overall health of the Port, although cyclical, is showing periods of significant cost savings and good management of expenses – good job to Port staff.

COMMISSIONERS' COMMENTS

C. McLarty – thought work session and meeting were informative and welcome to Gay.

C. Henderson – welcome to Gay. Your experience will make the team that much better. I think the work session was very productive and the meeting, although long and my apologies, was very beneficial. I think pursuit of the incinerator and funding options are great ideas and shows creativity is on the table down the road. I think it's great that we're getting to know our customers and make our products more attractive with long term solutions to our fiscal challenges.

C. Smithhisler – welcome to Gay, I don't weigh in very much, especially when we do have differing opinions, as it makes me think a little bit more.

C. Sheffield – thanks for having me and being patient while I stumble around and figure out the issues you guys have been working with – thank you.

C. Lean – I think this was an excellent meeting, and very happy that Gay is here. I've talked too much tonight, so that's my comment.

SCHEDULE OF NEXT MEETING

The next meeting is RESCHEDULED to May 17, 2018

ADJOURNMENT

Motion was made by Smithhisler for adjournment – meeting adjourned at 8:55 PM.

APPROVED and **SIGNED** this 17th day of May 2018.

Charlie Lean, Vice-Chairman

ATTEST:

Joy Baker, Port Director

**MINUTES
NOME PORT COMMISSION
REGULAR MEETING
May 17th, 2018**

The Regular Meeting of the Nome Port Commission was called to order at 5:30pm by Chairman West in Council Chambers at City Hall, located at 102 Division Street.

ROLL CALL

Members Present: C. Smithhisler, C. Lean, C. West, C. Henderson; C. Rowe, C. Sheffield; C. McLarty;

Absent: None

Also Present: Tom Moran, City Manager; Lucas Stotts, Harbormaster; Joy Baker, Port Director;

In the audience: Zoe Grueskin, KNOM; Sandra Medearis, Arctic News; Mark Johnson, citizen;

APPROVAL OF AGENDA

Chairman West asked for a motion to approve the agenda:

A motion was made by Sheffield and seconded by Smithhisler.

At the Roll Call:

Ayes: Lean, West, Henderson, Rowe, Sheffield, McLarty, Smithhisler

Nays:

Abstain:

The motion **CARRIED**.

APPROVAL OF MINUTES

April 19, 2018 Regular Meeting Chairman West asked for a motion to approve the minutes:

A motion was made by Smithhisler, seconded by McLarty to approve the minutes.

Discussion:

McLarty request that a few edits be considered prior to approval.

First on page 2, under the Harbormaster Report; remove the extra “are” in the sentence regarding response to snow removal requests.

On page 5, under Citizens Comments; Mark Johnson stated he echoed McLarty’s statement regarding vessel insurance; therefore McLarty would like his comment regarding vessel insurance and safety inserted following Sheffield’s question at the bottom of paragraph 2 on the same page.

Also on page 5, paragraph 4, McLarty believes his question regarding Arctic Sea Mining contributing funds to the Port did not receive any reply regarding piling infrastructure, and that his follow up point that they offered to contribute was not included in the minutes.

PD Baker stated that she believed the piling was actually stated on the recording, but offered to review the audio for the specific terms used. Chairman West requested that PD Baker review the audio for clarity, and bring it back at the June meeting.

The motion was amended to table the minutes for review of the audio followed by reconsideration at the June meeting.

At the Roll Call:

Ayes: West, Henderson, Rowe, Sheffield, McLarty, Smithhisler, Lean

Nays:

Abstain:

The motion **CARRIED**.

CITIZENS' COMMENTS

None

COMMUNICATIONS

- 18-04-23 Nome City Council R-18-04-03 Supporting HJR-33 USCG FOL
- IARC Report on 2018 Bering Strait Ice Conditions
- 18-05-07 USCG Icebreaker Program EIS Public Scoping Comments
- USCG -2018-0193 Notice of Intent on Polar Icebreaking Program EIS
- 18-05-03 ADHS/EM Letter to CM Moran re: Cape PW17 Time Extension
- 18-05-09 Outgoing USCG Commandant says Arctic has become priority

Discussion:

PD Baker highlighted that the comment period on the EIS for the USCG Icebreaker Program is open until June 29, 2018. Sheffield stated that the new vessels are making modifications to account for science onboard, but the National Science Foundation did not partner with the USCG on these vessels. Discussion ensued regarding vessel sizes and drafts – the Polar Class (heavy) would be looking for a minimum depth of -38' to -40' MLLW.

CITY MANAGER'S REPORT (18-05-11 Report)

CM Moran touched on a few fliers of City events to spread coverage regarding Clean Up Week, adding in some staff absences coming up. He also mentioned dedication of two ambulance bays next Tuesday in honor of retirees Charlie Lean and Vickie Erickson for their numerous years of service.

HARBORMASTER'S REPORT (Verbal)

HM Stotts reported that things were picking up around the Port & Harbor. Both open positions have been filled; Caitlin LeClair started as the Office Manager this past Monday and Clayton Rodriguez as Dock Watch on Tuesday. Chris Schuneman returned from Public Works on Tuesday and resumed his role as Assistant Harbormaster. Feel free to stop by and introduce yourselves or contact us if you'd like to get a tour of the facilities. As far as maintenance, we have been addressing some rusting issues with the older set of floats so will be working on that prior to launching them for the season. As there is still ice in the harbor, we anticipate being able to complete the coating with sufficient cure time prior to needing to launch. Another round of impounds is in play and once complete, the impounded items will be combined with earlier items and a public auction scheduled at the facility.

Discussion:

Smithhisler asked if there was a routine schedule for recoating the floats; usually in the 5-6 year range, but they are inspected each year at haulout and launch, and any needed maintenance is scheduled accordingly. Lean inquired about the condition of the camel fenders; Stotts replied that they are in great condition, with

only minor loss of cotter pins on the shackles that connect the fenders to the wall by barge chain. Rowe asked who does the labor on the float stripping/coating; Stotts replied, mostly harbor staff with periodic equipment assistance from Public Works. McLarty inquired as to the source and type of paint; Stotts stated the same paint company in Anchorage that has routinely supplied to us, and its 2-part marine epoxy paint. Henderson commended HM Stotts on offering to conduct port security training with the individual tenants which turned a full day event into less than a half hour, which is more efficient for the tenants – thanks.

PORT DIRECTOR REPORT (Projects Update)_(18-05-14 Report)

PD Baker advised the Commission of the recent passage of Alaska SB 142, which includes \$1.6M in legislative funds in design support of an Arctic Deep Draft Port at Nome. This came as a result of Representative Foster, Senator Olson, and our lobbyist, Wendy Chamberlain. Additionally, both the Mayor and I testified before the Senate and House Finance Committees in support of the funding within the Capital Budget. Nome was fortunate enough to remain in the bill through passage, and we await the Governor's signature of the FY2019 Capital Budget for final authorization of the funds.

PD Baker highlighted the practice of ensuring customers are in good standing with the Clerk's Office is back in practice. Anyone showing a property tax balance is being redirected to the Clerk's Office to resolve the issue. Additionally, we are working diligently to ensure that all contractors providing a service at the facility are adequately licensed and insured to cover their business operations on Port property. Those that are in compliance will have their operations advertised on our Amenities Services listing, which is posted on our bulletin board and website, as well as given out verbally to inquiring customers.

PD Baker briefly pointed out the info following her report reflecting emails from other Alaska port facilities on the receipt of general funds to cover operations or projects costs. Responses were received from 10 facilities, all of which operate as an enterprise fund and therefore receive no routine financial support from the municipal general funds. Periodic loans are made when necessary to cover projects, but always repaid. Most all of the raw fish tax and cruise ship head tax is passed to the Port, with a few receiving a portion.

Lastly, PD Baker shared a draft Revenue by User Type report that we were just able to compile prior to the meeting, as a result of a programming tweak by our billing software company. This allowed us to categorize our users by industry, resulting in a revenue report. There are some anomalies that need to be further explored, but it gives a general idea of how the revenue breaks down among users.

Discussion:

Henderson asked as to whether the numbers included everything paid by the users; Baker replied yes. McLarty inquired about the lower 2017 number for the mining industry – Baker replied that was a number she intended to check to ensure all users were categorized correctly. HM Stotts added that he has noticed fewer small operators both in vessels and storage so that would be a factor.

Further discussion ensued about funding priorities and capital expenditures being supported by loans from the general fund or increased tariff rates. At the end of the discussion, Lean recommended that the group consider sending a thank you letter to Senator Olson and Representative Foster for their efforts in securing the \$1.6M in design funds for the Arctic Deep Draft Port under New Business.

OLD BUSINESS

USCG Commercial Vessel Regulations – Nome Offshore Mining Fleet

PD Baker reported that through an informal call with Delegation Staff, it became clear that a formal request for a boundary line move would prove to be a tall order and very involved process. The discussion leaned more favorable toward requesting the USCG to consider evaluating the larger vessels of the unique Nome

offshore mining fleet to determine if alternative compliance may be warranted. Clearly, the responsibility of the safety of mariners falls solely within USCG authority, but the inquiry can be made.

Discussion:

McLarty inquired as to whom the discussion was held with; PD Baker indicated Congressional staff charged with working directly with the USCG on a variety of issues. McLarty added that the Sector ANC staff that came to Nome said it's not up to them to determine if alternate regulations are in order - that was up to Congress. Baker replied that Congress would be involved in the event a boundary change is requested, but for rulemaking, Sector can only enforce the regulations in place. It falls to HQ staff to make determinations on whether changes or new regulations are necessary. Lean echoed that any boundary change must be legislated through Congress, but Congress issued a broad directive to make shipping safe, and the USCG writes the policy. Additional discussion ensued on the best approach to take on the issue.

Motion:

The following motion was moved by Henderson and seconded by Smithhisler:

Recommend Port staff draft a letter to the Alaska Congressional Delegation requesting the USCG conduct a full evaluation of this unique fleet to determine if alternative compliance is warranted, without compromise to safety.

At the Roll Call:

Ayes: Henderson, Rowe, Sheffield, McLarty, Smithhisler, Lean, West

Nays:

Abstain:

The motion **CARRIED**.

NEW BUSINESS

Alaska SB 142 - \$1.6M Support for Design of an Arctic Deep Draft Port at Nome to -40' MLLW

Discussion:

Lean requested that a letter thanking Senator Olson and Representative Foster for their role in support of the \$1.6M in funds for design of an Arctic Deep Draft Port that was included in the FY2019 Alaska Capital Budget that has been sent to Governor Walker for signature.

Motion:

The following motion was moved by Lean and seconded by Henderson:

Recommend Port staff draft a letter of thanks to Representative Foster and Senator Olson for their dedicated efforts in ensuring the \$1.6M remained in the FY19 Alaska Capital Budget passed by the Alaska Legislature on May 12, 2018.

At the Roll Call:

Ayes: Rowe, Sheffield, McLarty, Smithhisler, Lean, West, Henderson

Nays:

Abstain:

The motion **CARRIED**.

CITIZENS' COMMENTS

Mark Johnson spoke as a citizen, stating his interest in learning more about the economic drivers in Nome and encouraged by the recommendation that was made to support the mining industry and believe that's a step in the right direction. He believes supporting the mining, fishing, fueling and other industries are things that help support Nome.

COMMISSIONERS' COMMENTS

C. Rowe – welcome Gay, I believe it was an excellent choice to have you join the group.

C. McLarty – I will revisit a few issues from earlier. Any money that we can invest in furthering the exploration and development of mining in a safe, insurable and profitable way is money well spent. Whether that is through infrastructure development or whatever it may be – I don't back just the mining industry, I would back anything in the fishing or fueling industry, anything that would further economic growth. I think the resources we're sitting on are very specific to this area and I think the rules should be just as specific, and if there's anything we can do about that I'd like to definitely push forward with it, whether that would be a boundary line movement or exception, or a specific vessel definition or whatever way we could possibly push forward on that, I think it would lessen the burden of the economic lull I think we're somewhat sitting on.

C. Henderson – I'd like to thank Joy, I know I've asked for a great deal of tariff and economic info that's not always that easy to produce, but I really appreciate it as I know it takes time. It helps me understand the port's finances better and how the money moves around. I appreciate her patience and it's very helpful.

C. Lean – Gay and Joy been nice to share the climate change information, and how this year as stacked up against previous years for the marine breakup, but the fresh water is on schedule. Along those lines the herring fishery is underway early and definitely early. Not sure if it's a record – could be 1st or 2nd earliest.

C. Sheffield – I haven't forgotten about the incinerator funding so should probably connect with Joy to see if there's a nibble of interest from the groups I'm thinking of. I'm happy to be here.

C. Smithhisler – no comments.

C. West – welcome Gay, a delightful addition with a various background which makes us more versatile. Cleanup week is May 26 – June 2. Early barge arrival for Alaska Marine Lines means early truck activity at the dock. It might be a good idea to issue a traffic advisory for trucks - looking forward to a good season.

SCHEDULE OF NEXT MEETING

The next meeting is SCHEDULED to June 21, 2018

ADJOURNMENT

Motion was made by Sheffield for adjournment – meeting adjourned at 6:55 PM.

APPROVED and **SIGNED** this 14th day of June 2018.

Jim West, Chairman

ATTEST:

Joy Baker, Port Director

Legislative Consultants of Alaska

Overview of the 2018 Legislative session

What were the key issues addressed this session?

The MOST SIGNIFICANT issue before the Legislature was Senate Bill 26. This legislation changes the way the Permanent Fund is utilized going forward and allows the **interest earned** from the Fund to be used to pay for state government operations.

Why was this changed necessary?

The state estimates revenues of \$2.2 billion for the upcoming fiscal year. While oil prices have increased the past six months the shortfall remains at approximately \$2.5 billion. Over the past four years the state drew from the savings accounts to balance the budget deficit HOWEVER, these savings have dwindled from \$13 billion to just over \$2 billion.

Can legislators access the Permanent Fund without a vote of the people?

No. The Permanent Fund **principal** is protected and can't be spent without a Constitutional Amendment and that is difficult to pass. The interest received from investing the Permanent Fund Principal is not protected and **can** be accessed by a simple majority vote of both legislative bodies.

Today the total Permanent Fund's value is \$64.6 billion. Of this amount \$47.0 billion is **PROTECTED NON spendable** principal and \$17.6 billion is **spendable** Earnings Reserve Account funds.

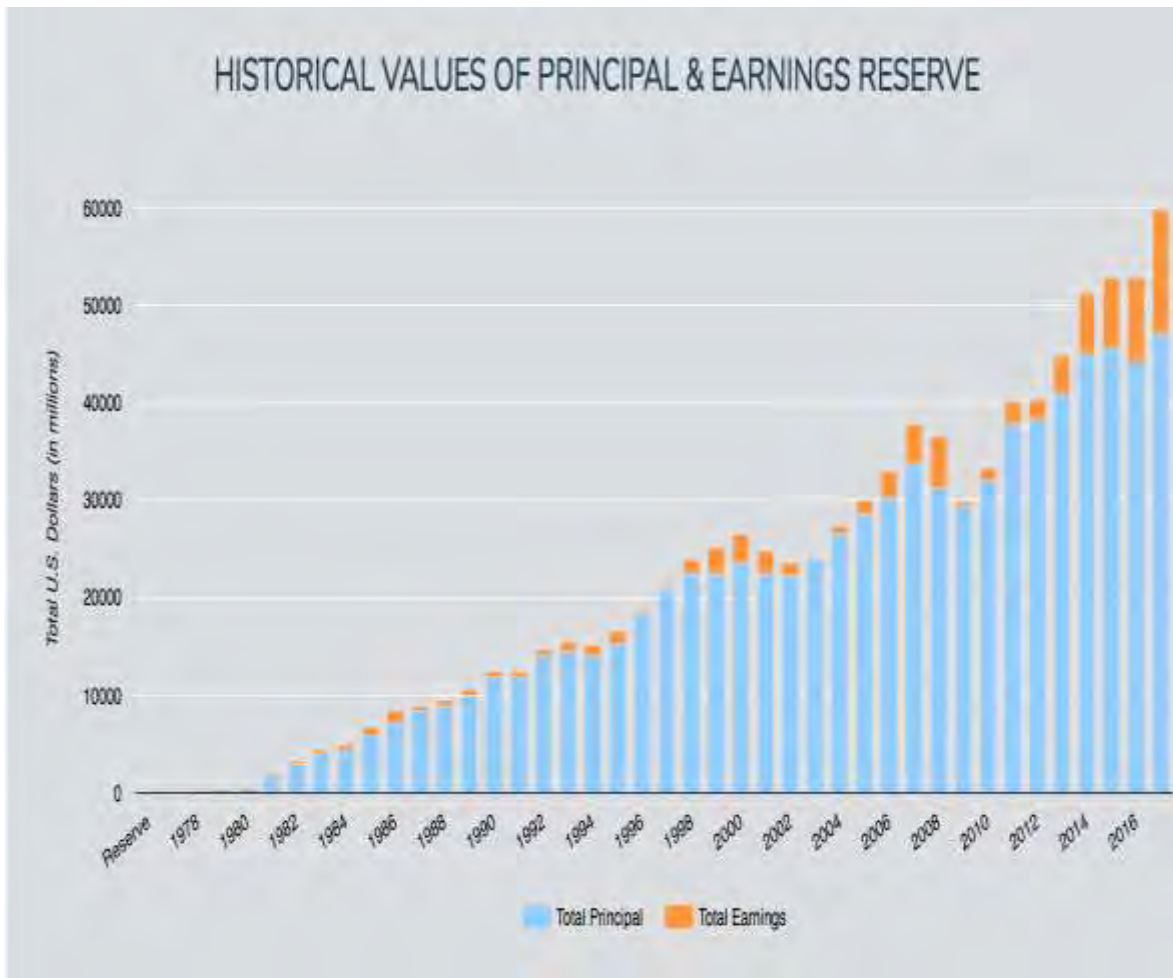
How much was drawn from the spendable portion of the fund?

\$2.8 BILLION.

Both the House and Senate agreed that any draw from the Earnings Reserve (Interest) Account must be structured to protect the fund from market fluctuations and politics. Senate bill 26 established an annual percent of market value draw (POMV) of 5.25 for three years, falling to 5 percent in subsequent years. This means 5.25 percent or \$2.8 billion of the \$64 billion fund is available for withdrawal in FY 2019.

Will this action impact the Permanent Fund Dividend?

Legislators differ on this question. If no action was taken dividend checks would be significantly higher (\$2,700) however, the deficit would result in taxes and significant budget cuts.



What is the next PFD amount?

The Legislature set the dividend amount for the current year at \$1600. Dividends will be paid out of the 5.25 percent POMV draw. This year the total amount required to pay PFD's is \$1.1 billion. This leaves \$1.7 billion to **use to offset the deficit.**

Will this balance the budget?

No, an additional \$700 million will be drawn from the small remaining savings account to cover the remaining deficit. House majority members pushed for taxes to offset this deficit however, Senate members remain strongly opposed to taxes.

How much was spent on capital projects?

The capital budget totals \$1.5 billion, with approximately \$400 million coming from state funds. This amount was higher than the previous two years due to increased pressure from deferred maintenance projects and state match requirements.

Highlights of programs/projects funded by the Legislature.

K-12 – An additional \$20 million in education funding for FY19 (equivalent to a \$78 BSA increase);

Pre-Kindergarten Grants – \$3 million for FY19 and \$3 million for FY20;

AK Travel Industry Association (ATIA) – \$3 million;

Medicaid – \$28 million for Medicaid services to cover the shortfall in this year's budget (this amount, the result of a compromise, is less the \$48 million requested by the Governor and supported by the House Majority Coalition to pay current expenses—the Medicaid budget for next year will likely require supplemental appropriations in 2019.

Public Safety - Increased spending for public safety priorities by \$34 million. There will be more state trooper travel to rural towns and villages and more prosecutors—including a statewide drug prosecutor—to bring criminals to justice.

Senior Benefits Program - \$19 million to continue the Senior Benefits program, which helps more than 12,000 low-income seniors across Alaska.

Senior Citizen Housing - \$1 million

Supplemental Housing Development program - \$3 million

Teacher, Health Worker, and Public Safety Employee Housing - \$2.25 million

Home Weatherization Grant program - \$6 million

Multi-year effort to increase substance abuse treatment - \$12 million

Village Safe Water and Wastewater Infrastructure project – Additional \$4 million

Community Assistance – \$4 million. This is in addition to the \$30 million in the operating budget for community revenue sharing.

Enhanced 9-1-1 Service for Rural Alaska – \$3.5 million;

Alaska State Troopers – \$2 million for crime prevention and response and equipment;

Sexual Assault Kits Backlog Analysis and Storage Equipment – \$2.75 million to address the state’s backlog of untested rape kits.

Port of Anchorage – \$20 million for reconstruction;

Deep Draft Arctic Port - \$1.6 million

Beyond the budgets, what other important issues passed this session?

House bill 233 – Extending the Education Tax Credit

- Extends the Education tax Credit program thru January 1, 2025.
- Provides a step down for the tiered system or “sweet spot” of the education credits. For two years, (2019 – 2020), the credit for contributions between \$100,000 and \$300,000 would be 75%.
- Starting in 2021, sets the amount of the credit at 50% of all contributions
- Allows in-kind donations of equipment. The amount of the contribution will be determined by an appraisal consistent with regulations adopted by the department.

SB 202/HB 367—ANCSA Contaminated Lands

Amends state law clarifying an Alaska Native corporation is not liable for containment, removal, or remediation actions if the contamination occurred on the land before it was transferred under the Alaska Native Claims Settlement Act. This legislation provides important legal protections to Native corporations while efforts are on-going to persuade the federal government to clean up those lands that were contaminated before they were conveyed under ANCSA.

HB 410—Reinstatement of Native Corporations

ANCSA village corporations are dissolved if they miss filing biennial reports to state. HB 410 would allow any currently dissolved village corporations an opportunity to be reinstated.

Relating to the PCE fund

Excess earnings in the Power Cost Equalization fund were appropriated to:

- \$30 million for Community Assistance payments across the state.
An additional \$ 4 million was added in the Capital budget
- \$11 million was put toward the Alaska Energy Authority's Rural Power System Upgrades program
- \$11 million was appropriated to AEA Renewable Energy Project grants.

House bill 331 Relating to oil and gas credits

Allows the Department of Revenue to purchase oil and gas credits at a discounted rate by using funds from the sale of authorized bonds. HB 331 closes out Alaska's remaining financial obligations from the cashable credits program at no additional cost to the state.

House bill 287 – Education funding

Appropriates \$1.3 billion for K-12 education and student transportation in FY19. A provision in the bill funds education in the same amount in FY 20 and adds an additional \$30 million in one time grants to school districts. The \$30 million increase for FY 20 is equivalent to a \$117 increase in the Base Student Allocation (BSA)

Senate Bill 63 – Restricting smoking areas

Bans smoking in all workplaces statewide. Current law already prohibits smoking in certain workplaces across the state -- including healthcare facilities, schools, childcare facilities and public meeting rooms in government buildings. But Senate Bill 63 expands the ban to include private employers too.

The measure encompasses not just bars, restaurants and other venues -- it also includes buses, taxicabs, ferries and any other vehicle used for public transportation. Some Alaska cities -- such as Anchorage, Juneau, Bethel, Barrow, Dillingham, Haines, Skagway, Petersburg, Klawock, Nome, Unalaska and Palmer have already passed similar legislation at the local level, which applies to more than half of the state population.

HB 135—School Construction Grant Program.

This bill extends the time given to school districts to raise matching funds for state school construction grants.

HB 111—Ending Oil Tax Credits.

This bill revised Alaska's tax regime and successfully eliminated tax credits for oil companies. A bill passed this year (HB 331) to pay off the remaining cashable credits through bonding, at no interest cost to the state, this will put this issue behind us once and for all.

HB 106—Alaska Civil Legal Services Fund HB 106

Provides a funding mechanism for Alaska Legal Services by allowing the Legislature to appropriate 10 percent of court filing fees to the non-profit annually. This will amount to about \$300K per year.

HB 212— REAA and Small Municipal School District Fund.

This bill adds school major maintenance to the purposes for which money from the fund can be used. This should allow the state to more quickly address the backlog of school maintenance needs in rural regions.

HB 236 – Relating to the Senior Benefits program.

Extends the Senior Benefits program until the year 2024.

This program provides modest monthly payments to low income elders throughout the state.

SB 92—Derelict Vessels Bill.

This bill will help coastal communities and communities on navigable rivers avoid huge liabilities that come with vessels that are abandoned in or nearby their harbors. It puts in place measures that better documents ownership and responsibility while also raising funds that can be put toward dealing with abandoned vessels.

HB 78—Indigenous Peoples Day

Establishes the second Monday in October as Indigenous Peoples Day. Coinciding with Columbus Day, the October Monday now also recognizes, honors, and celebrates the first people of Alaska and the Americas.

House Bill 79 – Relating to Workers' Compensation

House bill 79 was introduced by Gov. Bill Walker and designed to make the workers' compensation administrative and legal functions more efficient and less costly. The bill was pared down significantly during the committee process

The final version of the bill:

- Moved reporting to electronic filing and payments
- Protected independent contractors from being classified as employees for purposes of workers' compensation.
- Established a legislative worker's compensation working group to work on new legislation for consideration during the next legislative session.

Education:

One of the "winners" this past legislative session was Education. Below is a brief outline of bills passed relating to Education.

Funding

1. Most importantly, the legislature passed two-years worth of funding with a \$20 million increase for the coming fiscal year (FY19) and a \$30 million increase for FY20.
1. \$6 million for pre-kindergarten education. \$3 million for FY 2019 and \$3million for FY 2020
2. Enacted legislation designed to incentivize innovative education curriculum, attaching \$19.5 million to fund the multi-year effort (SB 104.)

Additionally, they passed legislation:

- Authorizing the re-hiring of retired teachers (SB 185)
- Reducing the financial penalties for school consolidation (SB 216).
- Increasing the local match share timeline requirement (HB 135)

- Creating the public school trust fund (HB 213). The fund will receive money from the proceeds of a PFD-based raffle. 50% of the proceeds will go toward education above the foundation formula.

?

- Extended the education tax credits (HB233).
- The University of Alaska also received an additional \$10 million of funding over last year.



May 22, 2018

The Honorable William Walker
Office of the Governor
P.O. Box 110001
Juneau, Alaska 99811-0001

RE: NOME ARCTIC DEEP DRAFT PORT DESIGN – \$1.6M (FY2019 Capital Budget)

Dear Governor Walker,

The City of Nome was very thankful to be included in Senate Bill 142, the draft FY2019 Capital Budget, with \$1.6M in continued support of an Arctic Deep Draft Port at Nome. The timing of these additional match funds is critical to ensure the project can progress into the design phase without delay. It is with this urgency in mind that I ask for your full support in signing SB 142 with Nome's funding intact.

Based on additional provisions provided in Section 2006 of the Water Infrastructure Improvements for the Nation (WIIN) Act, the U.S. Army Corps of Engineers was able to move off pause and into a Nome-specific study. The existing Nome data gathered during the joint regional study between the Corps and the State provides for an expedited timeline to define the broader justifications needed to ensure the long-term viability and welfare of western Alaska's coastal communities.

In order to be positioned to cost-share with the Alaska Corps District for the Preconstruction, Engineering & Design (PED) phase, the City respectfully request the \$1.6M funds identified in SB 142 remain throughout final execution of the FY2019 Budget. The City looks forward to continued support from the State of Alaska in the pursuit of an Arctic Deep Draft Port at Nome: a project that will significantly improve the dynamic of economic development along Alaska's coastline, while serving to protect the nation's natural resources and domestic security.

As Arctic vessel traffic continues to increase and political unrest escalates worldwide, the need for maritime infrastructure grows more critical – to support the strategic placement of national security assets, and to ensure the protection of the environment, mariners, and the natural and subsistence resources vitally important to Alaskans and the nation. The paradigm of maritime shipping is shifting to the north, and Alaska is at the forefront of the developing Arctic theatre. In order to achieve a new level of diversity to our state's economy, we must be ready.

Sincerely,

CITY OF NOME

Richard Beneville
Mayor

CC: Senator Donny Olson
Representative Neal Foster



May 23, 2018

Dear Senator Murkowski, Senator Sullivan, and Congressman Young:

Earlier this year, the Nome Port Commission was approached by members of the local gold dredge fleet to express concerns regarding U.S. Coast Guard regulation of their vessels. The Coast Guard has taken steps to implement vessel inspection and regulations covering "seagoing barges" and has communicated to operators of the larger vessels in the gold dredge fleet that they will be subjected to these requirements for the 2018 operating season.

These regulations are intended to cover non-self-propelled vessels 79 feet and over, built in 1986 or later (or 150 gross tons or more if built in 1985 or before), that make voyages beyond the Boundary Line. In Nome, the Boundary Line is at the beach, and the gold dredge fleet, including the larger vessels in question here, only operates within the 3 mile limit of state resource lands managed by the Alaska Department of Natural Resources.

Specific aspects of the regulations that have been raised with the Commission as potentially unnecessary for this fleet include the load line certificate and certificate of inspection – as these are regulations applicable to seagoing domestic and foreign cargo shipping vessels involved in maritime commerce on the open ocean. The mining vessels operating offshore of Nome represent a very unique, near-shore specialty fleet (the only one of its kind in the U.S.) and therefore warrant a more in-depth evaluation for determining regulations suitable to this fleet type.

Because this is a complex federal issue, I am writing to request the Delegation's assistance in facilitating a dialogue with the Coast Guard to evaluate options and determine whether an alternative compliance approach may be feasible. The Commission strongly supports measures to minimize risks and ensure that the gold dredge fleet operates safely. At the same time, this is an important component of Nome's local economy and we would like to avoid overly burdensome regulations that may not enhance safety.

We appreciate your help and look forward to working with you and your staffs to address this important issue.

Sincerely,

CITY OF NOME

Richard Beneville
Mayor

CC: Nome Port Commission
Joy Baker, Port Director
Tom Moran, City Manager

Elements of Mining

Operating and potential projects by region

By Isaac Stone Simonelli

When people in the Lower 48—and even plenty of those here in the Last Frontier—think about mining in Alaska, they think gold. With the state producing 14 percent of the nation's gold in 2014, they think gold for a good reason. From the Southeast to the Interior, mining operations and continued exploration efforts, both large and small, reveal glimmering prospects for those hunting the precious metal.

However, the vast geological diversity in the state provides numerous mineral opportunities beyond gold, many of which are either already being tapped by active mines or in exploration stages. Perhaps the most strategic mining developments revolve around rare earth elements (REEs), which can be found in everything from TVs and camera lenses to cancer treatment drugs and the technology that makes it possible to harvest energy from renewable sources.

“Nationally, identification of areas with critical-mineral potential is important for ensuring secure domestic supplies of REEs and other elements critical for technological and industrial uses,” says Melanie Weldon, chief of the Mineral Resources Section of the Division of Geological & Geophysical Surveys, Alaska Department of Natural Resources. “For Alaska, development of REEs would provide jobs, economic-development opportunities, and increased revenue to state and local governments, and, depending on land status, to Native corporations as well.”

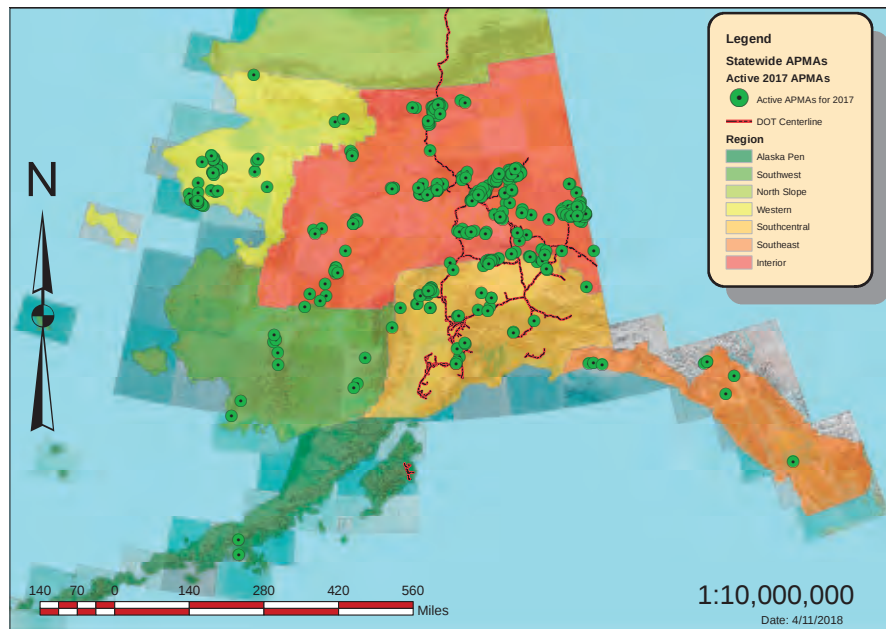
In addition to REE exploration, 2017 saw continued mining of coal, zinc, lead, silver, and gold at established mines—while millions of dollars were poured into various regions of the state as companies looked to extend the lives of their mines as well as develop new areas with significant economic potential.

In Alaska there are twenty active mineral exploration projects, six large-scale mines, and hundreds of smaller placer gold operations in every region of the state except for the North Slope.

Interior Operations

Fort Knox, operated by Toronto-based Kinross Gold, produced 285,933 ounces of gold by the third quarter of 2017, hitting a milestone as it poured its 1 millionth ounce from the Walter Creek Arctic Heap Leach on January 24. The mine is the largest and longest-running (operating for more than twenty years) of the two hardrock operations in the state.

“This is a great milestone for Fort Knox and has been an instrumental part of extending



This map highlights all of the active APMAs (Applications for Permits to Mine in Alaska) that the Alaska Department of Natural Resources Division of Mining, Land, and Water received for the 2017 Mining Season.

the life of the property. I see our Arctic Heap Leach as a testament to our commitment to innovation as a company. My thanks goes out to the many folks, throughout the entire company, that have helped achieve this milestone,” says Eric Hill, vice president and general manager of Fort Knox.

Part of Kinross’ commitment to the mine and the community, which depends on Fort Knox jobs, is continued exploration. In December, Kinross gained the mineral rights to a 709-acre parcel of land known as Gilmore, located immediately west of the Fort Knox mine. Kinross expects to initiate the permitting process for mining at Gilmore by year end.

“As a result, Kinross added 2.1 million gold ounces in estimated measured and indicated resources and 300 gold ounces in estimated inferred resources at Fort Knox,” says Anna Atchison, a Fort Knox spokeswoman. “We also converted approximately 260 gold ounces of mineral resources, which was mainly from the East wall of the Fort Knox pit, to proven and probable reserves. The conversion offset some of the reserve depletion in 2017 and resulted in an increase to Fort Knox’s estimated mine life by approximately one year.”

On pace to pour its 4 millionth ounce of gold in 2019, Sumitomo Metal Mining’s underground Pogo Mine, which passed its ten-year milestone in 2016, produced about 271,000 ounces of gold last year.

The company has been investing more than \$10 million a year on exploration and struck gold—literally—with some of its most recent results.

“So we just turned the rig, drilling a shallower hole coming across,” Pogo Exploration Superintendent Gabe Graf told a crowd at the Alaska Miners Association Biennial Conference held in Fairbanks in March. “And this hole, we hit 17.5 feet of 1.739 ounces per ton. Very good—very excited about that.”

If the test hole drilled in Delta Junction near the current mine is a fair sample, ore extracted from that area would produce 1.7 ounces of gold per ton—well above the amount needed to turn a healthy profit.

“The early information that we’re getting back from exploration between last year and of course some information this year shows that there’s a lot of potential north of the property,” Pogo General Manager Chris Kennedy told UAF-operated KUAC in a March interview. “The Fun Zone shows a lot of potential. The West Goodpaster shows a huge amount of potential.”

This year, Sumitomo plans to spend \$21 million on exploration to gain a better grasp of the potential of Fun Zone, Goodpaster, and other prospects closer to the mine.

However, it’s not all gold driving the mining industry in the Interior. The region is also home to the family-owned, all-Alaskan Usibelli coal mine established in 1943 by Emil Usibelli.

Coal from the mine is transported to six Interior Alaska electrical power plants, where it produces 29 percent of the power for the region.

“The mine produces approximately 1.4 million tons of coal per year—a huge jump from the 10,000 tons produced in 1943,” Usibelli

Coal Mine stated in a news release last year. This year, the mine prepares to celebrate its 75th anniversary.

Southcentral, Southeast Operations

Hecla's Greens Creek mine gushed with silver last year as it produced 8.4 million ounces of the precious metal and 50,854 ounces of gold, according to the company.

"Our mines are performing well due to the strength of our operating teams and consistent and disciplined capital programs that have improved these long-lived mines," Phillips S. Baker Jr., Hecla's president and CEO, said in a news release. "Greens Creek continues growing throughput, primarily due to increased efficiency at shift change as we utilize new technologies like remote monitoring systems and automated use of the LHD."

The company, which operates the mine on Admiralty Island, had a strong first quarter this year with 1.9 million ounces of silver, though gold production, at 13,118 ounces, was down.

"Lower gold production, when compared to the first quarter of 2017, was due to lower ore grades as a result of mine sequencing, partially offset by higher mill throughput," the company explains.

Also producing in Southeast is Coeur Mining Inc., which announced year-end production results from its Kensington Mine: 115,094 ounces of gold. The results demonstrate a significant year-over-year decrease due primarily to lower than expected grades during the first nine months of the year. However, fourth quarter production increased by 27 percent, resulting in the highest fourth quarter since 2013.

The US Army Corps of Engineers Alaska District extended the public scoping period for Pebble Mine, located in the Bristol Bay region, from April 30 to June 29 to allow for further stakeholder comments.

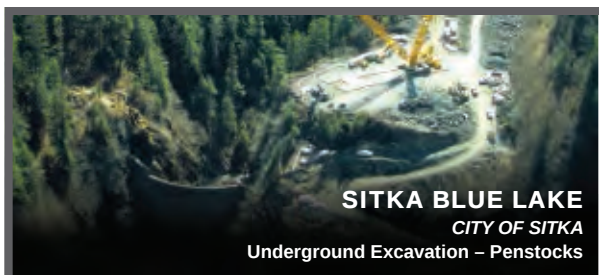
The mineral exploration project by Northern Dynasty, which is investigating a world-class porphyry copper, gold, and molybdenum deposit, has seen major swings in support from the Environmental Protection Agency. First when EPA Administrator Scott Pruitt moved to withdraw the Obama administration's proposal to block the mine under the Clean Water Act and then when Pruitt later reversed his decision to allow for further public comment.

Though further stakeholder comments are being sought, the wheels are still rolling forward with the Pebble project.

"We've filed our application; it's been accepted as complete by the [US Army Corps of Engineers]," Tom Collier, CEO of the Pebble Limited Partnership, has said. "That process is moving along, and it's moving along efficiently and effectively."

Though Pebble Mine has caught headlines around the world, the race to secure REEs makes Ucore's Bokan Mountain exploration on Prince of Wales Island increasingly important. The project was advanced nearly to the permitting stage by 2014 but has been largely dormant in recent years.

A total of fifteen rare earth elements are present at Bokan, with the top dogs being dysprosium, terbium, and yttrium.

 SITKA BLUE LAKE CITY OF SITKA Underground Excavation – Penstocks	 POGO MINE SUMITOMO METAL MINING 2004 to Present
 ALLISON LAKE COPPER VALLEY ELECTRIC Project Access Tunnel	 KENSINGTON MINE COEUR ALASKA Exploration Development Jualin
 LAKE DOROTHY ALASKA ELECTRIC LIGHT AND POWER Penstock Tunnel and Underground Lake Tap	

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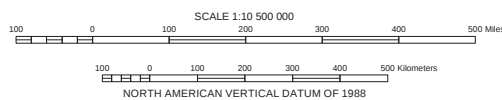
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North American Datum of 1983



EXPLANATION OF MAP SYMBOLS

[Darker shades indicate areas of potential within named mineralization belts; lighter shades show areas of potential outside of these belts]

HIGH POTENTIAL	MEDIUM POTENTIAL	LOW POTENTIAL	
High certainty	High certainty	High certainty	Unknown
Medium certainty	Medium certainty	Medium certainty	Belt boundary
Low certainty	Low certainty	Low certainty	Physiographic boundary
			Deposit location

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Suggested citation: Karl, S.M., Jones, J.V., III, and Hayes, T.S., eds., 2016, Annotated mineral resource potential for REE-Th-Y-Nb-U-Zr deposits associated with peralkaline to carbonatitic intrusive rocks, plate 2 in GIS-based identification of areas that have resource potential for critical minerals in six selected groups of deposit types in Alaska: U.S. Geological Survey Open-File Report 2016-1191, 99 p., 5 appendices, 12 plates, scale 1:10,500,000, <http://dx.doi.org/10.3133/ofr20161191>.

Map of areas of Alaska with REE potential.

USGS

The company stated earlier this year that AIDEA received authority from the Alaska Legislature for a \$145 million finance package for the future development of the Bokan Mine and processing facilities, a portion of which is intended to develop a proximal REE separation facility. Ucore selected Ketchikan, which is thirty-two miles northeast of Bokan and allows for marine transportation of the mined materials, as an ideal site for this cutting-edge Strategic Metals Complex.

The race to develop both REE mines and processing facilities, which have to wrestle with the tightly interlocked elements, comes as the United States maintains staggering dependence on the Chinese REE market.

“China’s dominant position as the producer of over 95 percent of the world output of rare-earth minerals and rapid increases in the consumption of rare earths owing to the emergence of new clean-energy and defense-related technologies, combined with China’s decisions to restrict exports of rare earths, have resulted in heightened concerns about the future availability of rare earths. As a result, industrial countries such as Japan, the United States, and countries of the European Union face tighter supplies and higher prices for rare earths,” Pui-Kwan Tse wrote in the abstract of a 2011 USGS report titled “China’s Rare-Earth Industry.”

As of January 2018, the US net import reli-

ance for REE increased to 100 percent, with the major import source being China, followed by Estonia, France, and Japan.

Though the Ucore project at Bokan Mountain is perhaps the closest REE mine to come to fruition in Alaska, USGS has identified large swaths of Alaska with various levels of potential for the ever-increasingly important minerals.

Western Operations

The ball continues to roll for the Donlin Gold Mine as the US Army Corps of Engineers has completed and published the final Donlin Gold EIS. The world-class gold project is expected to mill 53,500 tonnes per day,

producing an average of 1.1 million ounces of gold every year for the first twenty-seven years.

The project, equally owned by Barrick Gold Corporation and NOVAGOLD Resources, spent \$8 million on a drill program last year, drilling twenty-four holes for project-economics optimization. According to the Alaska Department of Natural Resources, the proven and probable reserve sits at 34 million ounces of gold. NOVAGOLD Resources and Barrick Gold have not yet committed to developing the site but are now waiting on a Record of Decision as to whether or not the project will be issued a wetlands permit. Other major state and federal permits are also required.

The combined silver production from Greens Creek mine and Red Dog Mine, near Kotzebue, account for more than half of all the silver mined in the United States. However, Red Dog Mine (operated by Teck Alaska) is primarily a zinc mine—one of the largest in the world.

“We are pleased with the significant improvements in recovery at our Red Dog operations in the last few months, and consequently production will now exceed previous guidance for the year by approximately 50,000 tonnes,” Don Lindsay, Teck president and CEO, said in a news release. “As well, our exploration results at our nearby Aktigiruk deposit show its potential to be one of the best undeveloped zinc deposits in the world.”

The project, a partnership between NANA and Teck Alaska, estimates that production of contained metal in 2018 will be in the range of 525,000 to 545,000 tonnes of zinc and 95,000 to 100,000 tonnes of lead.

According to a February release, “From 2019 to 2021, Red Dog’s production of contained metal is expected to be in the range of 475,000 to 525,000 tonnes of zinc and 85,000 to 100,000 tonnes of lead.”

Mineral Resources Offer Economic Boost

With the vast geological diversity and growing need for the United States to wean itself off foreign supplies of essential mineral resources, from REEs to copper, mining potential in Alaska cannot be underestimated.

“Alaska is comparable in size to much of the western USA. Alaska has significant potential for hosting many mineral-deposit types due to its diverse geology and large area of under-explored land. Alaska has many REE geochemical anomalies and occurrences, and the Bokan Mountain REE deposit, but much more exploration work needs to be conducted in order to know Alaska’s true REE potential,” Werdon says.

With mining companies spending millions in local communities through exploration projects, mineral separation research and development, and extraction, the industry continues to bolster Alaska’s economy. ✪

Isaac Stone Simonelli is a freelance journalist and former managing editor for the Phuket Gazette.

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Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC 20515

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Ranking Member

Katherine W. Dedrick, Democratic Staff Director

June 1, 2018

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Coast Guard and Maritime Transportation
FROM: Staff, Subcommittee on Coast Guard and Maritime Transportation
RE: Hearing on “Maritime Transportation in the Arctic: The U.S. Role”

PURPOSE

The Subcommittee on Coast Guard and Maritime Transportation will hold a hearing on Thursday, June 7, 2018, at 11:00 a.m., in 2167 Rayburn House Office Building to examine U.S. infrastructure needed to facilitate safe and efficient maritime transportation in the Arctic. The Subcommittee will hear from the United States Coast Guard (Coast Guard or Service), the National Oceanic and Atmospheric Administration (NOAA), scientists, and policy experts.

BACKGROUND

The Arctic region is the area north of the Arctic Circle, North Latitude 66.5622°. The Arctic Ocean dominates the Polar region, covering six million square miles (15.6 million square kilometers). Arctic temperatures range from an average winter temperature of -40° F (-40° C) to an average summer temperature just under 32° F (0° C).

The U.S. Arctic, as defined in statute¹, encompasses U.S. territory north of the Arctic Circle and along the Alaskan coast, including the Aleutian Islands. Three Arctic seas - the Bering, the Chukchi, and the Beaufort - border Alaska and these seas have historically been frozen for more than half the year. The U.S. Arctic Exclusive Economic Zone contains 568,000 square nautical miles (SNM), of which less than half is considered by NOAA to be “navigationally significant”. NOAA has designated 38,000 SNM of the navigationally significant areas as survey priority locations in the Arctic and estimates that it could take up to 25 years to conduct modern hydrographic surveys in the priority locations, if resources remain at their current level.²

¹ The Arctic Research and Policy Act of 1984, as amended (Public Law 98-373)

² NOAA National Ocean Service, <https://oceanservice.noaa.gov/economy/arctic/>, accessed May 21, 2018.

Currently, most cargo ship traffic is not trans-Arctic; rather it is regional, focusing on the transport of natural resources and general cargo to and from widely dispersed communities. While there has been a recent increase in shipping activity, that increase is more related to a rise in commodity prices than with the melting of Arctic ice.³ While all areas of the Arctic are seeing increased vessel activity, the Northern Sea Route along the Eurasian Arctic coast continues to account for the bulk of Arctic shipping activity.⁴

Vessel traffic between the North Atlantic and the North Pacific through the Arctic requires transit through the Bering Strait, located along the U.S. boundary with Russia. Since 2008, the Coast Guard has been collecting data on vessel transits in the U.S. Arctic and uses the annual transit count as a general indicator of vessel activity in the Arctic.⁵ In the past decade, the overall trend is towards increasing maritime activity, although traffic activity differs by vessel type (see Figure 3).

The International Code for Ships Operating in Polar Waters (Polar Code) adopted by the International Maritime Organization (IMO) in November 2014 went into effect on January 1, 2017.⁶ The Polar Code requirements are intended to improve vessel safety and prevent pollution from vessels in the Arctic, and includes provisions on ship construction, ship equipment related to navigation, crew training, and ship operation. The Code applies to passenger and cargo ships of 500 gross tons or more engaged in international voyages.

International cooperation in the Arctic is largely facilitated through the Arctic Council, which was established in 1996 with the signing of the Ottawa Declaration. The Council is made up of the eight Arctic nations (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States). Organizations representing Arctic indigenous peoples also have permanent participant status on the Council. As of May 2018, 13 non-Arctic Nations have observer status on the Arctic Council (France, Germany, Italian Republic, Japan, The Netherlands, People's Republic of China, Poland, Republic of India, Republic of Korea, Republic of Singapore, Spain, Switzerland, United Kingdom).⁷ The Council is a consensus based, intergovernmental forum

Arctic Boundary as defined by the Arctic Research and Policy Act (ARPA)

All United States and foreign territory north of the Arctic Circle and all United States territory north and west of the boundary formed by the Porcupine, Yukon, and Kuskokwim Rivers; all contiguous seas, including the Arctic Ocean and the Beaufort, Bering and Chukchi Seas, and the Aleutian chain.¹



Figure 1. The Arctic as defined in U.S. statute.

Source: United States Arctic Research Commission



Figure 2. Arctic shipping routes. Source:

Modified from The Arctic Institute

³ Ronald O'Rourke, Congressional Research Service. *Changes in the Arctic: Background and Issues for Congress*. April 24, 2018.

⁴ Ibid

⁵ U.S. Coast Guard. Port Access Route Study: In the Chukchi Sea, Bering Strait, and Bering Sea. Preliminary Findings. 23 December 2016. Docket Number USCG-2014-0941 and USCG-2010-0833.

⁶ <http://www.imo.org/en/MediaCentre/HotTopics/polar/Pages/default.aspx>, accessed May 21, 2018.

⁷ <http://www.arctic-council.org/index.php/en/about-us/arctic-council/observers>, accessed May 21, 2018

that works to promote environmental, social, and economic aspects of sustainable development in the Arctic.

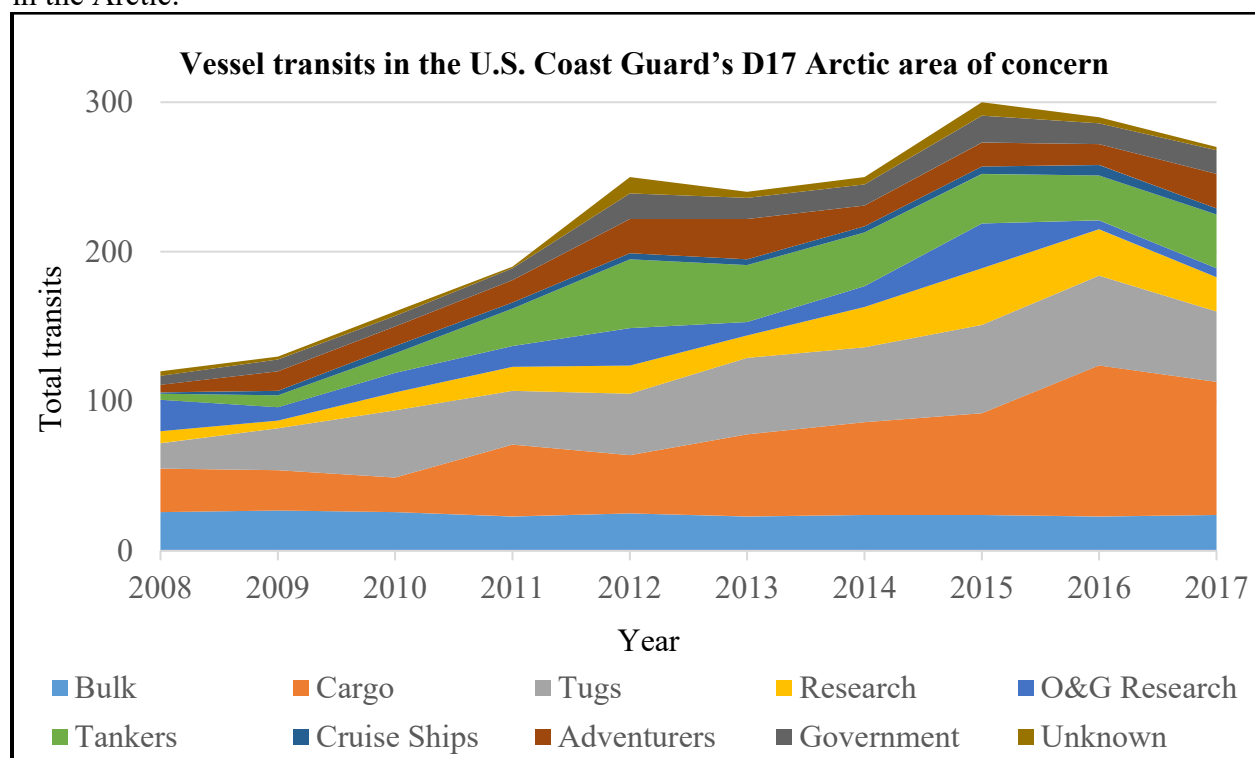


Figure 3. Vessel transits in the U.S. Coast Guard's D17 Arctic area of concern. The "D17 Arctic area of concern" is defined as an area north of the Bering Strait to the North Pole, east into the Canadian Arctic to Banks Island and west into Russia past the Russian port of Pevek. Source: Modified with data provided by the U.S. Coast Guard and from Figure 5 in the U.S. Coast Guard. Port Access Route Study: In the Chukchi Sea, Bering Strait, and Bering Sea. Preliminary Findings. 23 December 2016. Docket Number USCG-2014-0941 and USCG-2010-0833.

The Arctic Council maintains a web-portal, the Arctic Shipping Best Practice Information Forum, where participants share information relevant to operating in accordance with the newly established IMO Polar Code.⁸ The Forum facilitates the exchange of information and best practices between participants on specific shipping topics, including hydrography, search and rescue logistics, industry guidelines, and ship systems.

While U.S. agencies have a physical presence and substantial interests in the Arctic, the Coast Guard has experience, material assets, and installations located throughout Alaska, establishing it as a key maritime operational presence in the U.S. Arctic. In Alaska, the Coast Guard maintains the Seventeenth District offices in Juneau and the Service's largest installation in Kodiak.⁹ In addition to continuous operations from year-round facilities, the Coast Guard conducts seasonal operations, as part of its Operation Arctic Shield, in locations such as Kotzebue, Nome, and Utqiagvik (formerly Barrow).¹⁰ With no assets permanently stationed above the Arctic Circle, the Service's seasonal presence includes employing mobile command and control platforms, such as large cutters and ocean-going ice-strengthened buoy tenders, and establishing seasonal air and communications capabilities by deploying and leasing assets and facilities. These mobile and seasonal assets and facilities have proven to be important enablers

⁸ <https://pame.is/arcticshippingforum>, accessed May 21, 2018

⁹ The 17th District encompasses over 3,853,500 sq. miles and over 47,300 miles of shoreline throughout Alaska and the Arctic.

¹⁰ <https://www.pacificarea.uscg.mil/Our-Organization/District-17/Arctic-Shield/>, accessed May 21, 2018

for addressing front-line priorities in the region, including search and rescue operations, maritime border security, critical intelligence gathering, emergency response, and marine environmental protection and law enforcement.

Since 2012, the Coast Guard has implemented Arctic Shield operations, with the objectives to perform Coast Guard missions, enhance Arctic maritime domain awareness, broaden partnerships, and enhance and improve preparedness, prevention, and response capabilities. The Service deployed a number of assets as part of its Arctic Shield 2017 operations, including Coast Guard Cutter (CGC) HEALY, a medium icebreaker; CGC SHERMAN, a high endurance cutter; CGC ALEX HALEY, a medium endurance cutter; CGC MAPLE, a seagoing buoy tender; and two Coast Guard MH-60 Jayhawk helicopters from Air Station Kodiak, Alaska which were forward deployed to Kotzebue, Alaska. Arctic Shield 2017 included Operation Arctic Guardian, an oil spill exercise near Utqiagvik, Alaska, engagement with nine remote Alaskan villages, a historic transit of the Northwest Passage by CGC MAPLE and joint operations with the Royal Canadian Navy, as well as the completion of 28 search and rescue cases which resulted in 20 lives saved.

A decade-long effort to provide the United States with the capabilities necessary for assured access to the Arctic has recently found footing in Congress and the Nation's first new heavy icebreaker in more than 40 years is expected to be delivered by 2023. The Coast Guard and Navy have established a Joint Program Office to capitalize on experience and best practices from both Services, and Congress has appropriated over \$350 million to accelerate the design process for a new icebreaker. Additional funding is under consideration for Fiscal Year 2019 appropriations.

While much of the Nation's focus regarding the Arctic in recent years has been on the critical need for new icebreakers, new vessels are far from the only need in the region. A report conducted by the Homeland Security Operational Analysis Center identified four major gaps in Coast Guard Arctic Capabilities, including unreliable communications, lack of adequate maritime domain awareness, scarcity of available assets and supporting infrastructure, and institutional difficulty to identify, articulate, and close capability gaps.¹¹ The report states that if these capability gaps are not closed by the 2030s, the Coast Guard risks facing substantial vulnerabilities in several of its missions in the Arctic, including search and rescue, marine safety, ice operations, marine environmental protection, and ports, waterways, and coastal safety.¹²

Numerous governmental and academic reports have identified infrastructure and operational challenges to maritime transportation in the U.S. Arctic, including limited satellite coverage and architecture to support voice and data communications, the lack of a deep-draft port (accommodating ships with a draft of up to 35 feet), hazardous weather and ice conditions, and the lack of channel marking buoys and other floating visual aids to navigation, which are not possible due to continuously moving ice sheets.¹³ In order to ensure safe and efficient maritime

¹¹ Homeland Security Operational Analysis Center (2018) *Identifying Potential Gaps in the U.S. Coast Guard Arctic Capabilities*.

¹² Ronald O'Rourke, Congressional Research Service. *Changes in the Arctic: Background and Issues for Congress*. April 24, 2018.

¹³ Arctic Council (2009) *Arctic Marine Shipping Assessment*; U.S. White House (2013) *National Strategy for the Arctic Region*; U.S. Government Accountability Office (2014) *Maritime Infrastructure: Key Issues Related to Commercial Activity in the U.S. Arctic over the Next Decade*; Alaska Arctic Policy Commission (2015) *Final Report*; U.S. Committee on the Marine

transportation in the region, it is necessary to conduct surveys to improve nautical charts, improve communications capabilities, improve weather forecasting and modeling, construct a deep-draft U.S. Arctic port, and develop community and regional emergency response networks in preparation for vessel and aircraft accidents and environmental damage related to increased ship traffic and industry.

In addition to known infrastructure requirements, the Coast Guard is exploring the need for the creation of new vessel routing measures to reduce the risk of marine casualties and increase the efficiency and predictability of vessel traffic in the U.S. Arctic.¹⁴ The Coast Guard is also conducting several Arctic-focused research projects including methodologies to minimize environmental damage from spilled oil in extreme cold, enhanced navigational capabilities in the Arctic, establishing exposure limits for Search and Rescue team members in extreme cold, and developing a classification system of ice conditions.¹⁵

Other efforts to improve Arctic capabilities include the International Arctic Ocean Buoy Program, which maintains an international network of drifting buoys in the Arctic Ocean to provide meteorological and oceanographic data for real-time operational and research purposes. Additionally, legislation has been introduced in the 115th Congress to reauthorize funding for U.S. ocean observing systems, both for the Arctic and other U.S. regions.

Transportation System (2016) *A Ten-Year Prioritization of Infrastructure Needs in the U.S. Arctic*; Council on Foreign Relations (2017) *Arctic Imperatives, Reinforcing U.S. Strategy on America's Fourth Coast*; Center for Strategic and International Studies (2017) *Maritime Futures, the Arctic and the Bering Strait Region*; Homeland Security Operational Analysis Center (2018) *Identifying Potential Gaps in the U.S. Coast Guard Arctic Capabilities*.

¹⁴ U.S. Coast Guard. Port Access Route Study: In the Chukchi Sea, Bering Strait, and Bering Sea. Preliminary Findings. 23 December 2016. Docket Number USCG-2014-0941 and USCG-2010-0833.

¹⁵ U.S. Coast Guard. Acquisition Directorate. Research, Development, Test & Evaluation. *FY18 RDT&E Project Portfolio*. March 2018. Examples: Next Generation Arctic Navigational Safety Information System (proj #6211), Arctic Operations Support (proj #6210), Robust Maritime Arctic Communications (proj #6213), Safety Parameters for ICE Operations (proj #5301), Response to Oil in Ice (proj #4701), Ice Condition Risk Assessment Tool (proj #6512), and Arctic Technology Evaluation 2018 (proj #62101).

WITNESS LIST

Admiral Charles W. Ray
Vice Commandant
United States Coast Guard

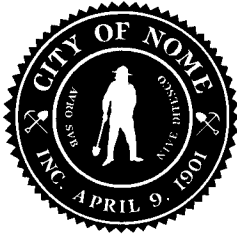
Mr. David Kennedy
Senior Arctic Advisor
National Oceanic and Atmospheric Administration

Ms. Heather A. Conley
Senior Vice President for Europe, Eurasia, and the Arctic
Center for Strategic and International Studies

Dr. Lawson Brigham
Faculty and Distinguished Fellow
International Arctic Research Center
University of Alaska Fairbanks

Ms. Molly McCammon
Executive Director
Alaska Ocean Observing System

Rear Admiral David W. Titley, USN (Ret.)
Professor of Practice
Department of Meteorology and Atmospheric Science
Pennsylvania State University



CITY OF NOME

City Manager's Office

P.O. Box 281

Nome, Alaska 99762

907.443.6600

t Moran@nomealaska.org

City Manager's Report

From: Tom Moran, City Manager
To: Nome City Council
Date: May 30 – June 8, 2018

- Congratulations to our May Employee-of-the-Month, Roy Walluk (DPW/NVFD). Not only did Roy work tirelessly throughout Spring Clean-Up (like all of his Department of Public Works colleagues), but he also rescued a drowning ATV motorist on Thursday, May 17th. Needless to say, Roy went above-and-beyond the call of duty, and we're lucky to have him as both an employee and a volunteer.
- Speaking of Spring Clean-Up, it formally ended on Saturday, June 2nd in Anvil City Square with the annual bike drawing at 4:00 PM. Special thanks to Chery Thompson for organizing the event, Public Works for laboring tirelessly, AKDOT for donating additional trucks around town, the Lions Club for serving food to all hungry participants, and especially to our volunteer "truck-sitters": KNOM, KICY, ACSA, and Marguerite La Riviere's very own Girl Scout Troop!
- Thanks to Bryant for serving as Acting City Manager while I was out of town for the week of June 4th. He's getting to be an expert at the often-exasperating chore.
- The Planning Commission met on Tuesday, June 5th to discuss revisiting DOT's Bicycle and Pedestrian Plan for Greg Kruschek Avenue. Nome Eskimo Community has expressed interest in partnering with the City to finally achieve construction of a walkway like the one along Nome-Teller Highway. If you'd like any further details, feel free to reach out to Deputy Clerk Christine Piscoya (who serves as the staff liaison to the Commission).
- A reminder that the Arctic Resiliency Workshop will be taking place at the Mini from June 12th to 14th. Though this particular event is geared more towards our outlying villages, Nome is the host and our own NVAD/NVFD will be presenting on conducting rural SAR (search and rescue) operations. **There will be a free cookout for participants at the Fire Hall on Wednesday, June 13th at 5:00, FYI.**
- Clerk Hammond will be gone the week of June 18th for continuing education at the Northwest Clerks Institute in Tacoma, Washington. If you have any Clerk-related requests, I'll be happy to assist.
- As always during budget season (though it thankfully draws to a close), Julie's budget calendar is attached. *Attachment 1.*



Memo

To: Tom Moran – City Manager
From: Joy L. Baker – Port Director *JLB*
CC: Mayor & Nome Common Council
Nome Port Commission
Date: 6/11/2018
Re: Port & Harbor Report/Projects Update – June 2018

The following provides a status update on active issues and projects pertaining to the Port & Harbor. *(Notes in italics represent no change in that project since last report.)*

Administrative:

At the May Port Commission Meeting, discussion continued on regulations the USCG has begun enforcement of that specifically pertain to the larger vessels within the mining fleet. A consensus was reached to ask the Congressional Delegation to request that the USCG perform an evaluation of the Nome offshore mining fleet to determine whether alternative compliance may be warranted since there are no regulations specific to this one-of-a-kind maritime fleet.

At the upcoming June meeting, issues for discussion are; 1/impacts of use of dispersants in the Arctic as a response measure for large scale oil spills, and; 2/an evaluation of Bristol Engineering's proposal to develop 95% design and cost estimate of an incinerator facility to allow the facility to accept regulated galley waste from foreign vessels.

The F18 Port Budget at 31 May shows 98.2 % revenue – with 69% expended. Port personnel, with the help of Public Works staff, have been busy with season opening tasks of launching floats, ladders and fenders, as well as pre-season maintenance of vehicles, water trailer and the harbor-owned vessels. A number of home-ported vessels have already launched for the season, keeping office staff busy with pre-launch form requirements and payment. Training of new staff continues, but both are proving to be quick study's and great additions to the team.

Causeway:

Arctic Deep Draft Port – Modification Feasibility Study (MFS):

The Army Corps Alaska District's Project Delivery Team (PDT), in partnership with City staff, is the group tasked with updating and compiling the data for the expansion of the Nome Port to deeper water. Efforts are underway to prepare an initial draft packet of conceptual alternatives and study scope ROM's to present to the HQ Vertical Team at the Alternatives Milestone Meeting (AMM) near the end of June 2018. Although a required milestone, it appears this is basically a courtesy step to allow Division and HQ staff a brief glimpse of the targeted approaches being used by the PDT on each project, and promote awareness/visibility along the vertical chain of command.

Inner Harbor:**Snake River Moorage & Vessel Haulout Facility:**

Q Trucking's subcontractor is scheduled to perform a bathymetric survey on 11 June 2018, with results expected within the week. Change Order #05 has been drafted to reflect a small amount of additional material to be added to the Thornbush pad in the next ten days to further enhance drainage - fully expending the DC-108 State grant. A field inspection of the additionally placed fill and PND's review and approval of the bathymetric survey on the river will achieve all work associated with this project, and adequately meet the 30 June 2018 funding deadline.

Port Industrial Pad:**Industrial Pad Development (Thornbush Site):**

This phase of pad development is complete with the developed area calculated to approximately 9.2 acres.

West Nome Tank Farm (Property Conveyance):

The USAF has scheduled to be in Nome in late June to conduct the additional Environmental Baseline Survey, with a report immediately following. Upon completion of the final report, the USAF will submit to their HQ office with a request to expedite final property conveyance to the City.

External Facilities:**Cape Nome:**

The conflict over GPS survey data showing sufficient armor stone in place in the reworked versus results of the bathymetric survey showing deficiencies has been resolved. Change order #02 has been prepared and submitted to the contractor for review. The CO covers a few task-related changes as well as reduced armor stone quantities resulting from the change in sea floor discovered at the beginning of construction. Final completion of this repair project is anticipated for mid to late summer 2018 – with project funding deadline of 27 December 2018.

A variety of other projects continue for the off-season period for various planning, design and funding phases. Additional information can be made available on request

Areas of Responsibilities

Version: Draft May 31, 2018

Between

Alaska Ocean Observing System, Anchorage, AK
1007 West 3rd Ave, Suite 100
Anchorage, AK 99501

and

Coastal Data Information Program (CDIP), La Jolla, CA
8855 Biological Grade
Isaacs Hall, Suite 100, UCSD
La Jolla, CA 92093

and

Marine Exchange of Alaska
1050 Harbor Way
Juneau, AK 99801

and

Port of Nome
PO Box 281
307 Belmont Street
Nome, AK 99762

This document defines the Areas of Responsibilities between the Alaska Ocean Observing System (AOOS), the City/Port of Nome and the Coastal Data Information Program (CDIP) with operating and maintaining a wave buoy offshore of Nome, Alaska beginning the summer of 2018.

Purpose

Nome is the northernmost deep-water port in Alaska that is called on by tankers, tugs and barges, dredgers, passenger ships, government vessels, fishing and research vessels. As Nome is located on the Southern Seward Peninsula, vessels navigating the entrance are exposed to open water off Norton Sound and the Bering Sea, which can pose a challenge when combined with the current.

The safe and efficient operation of the Port of Nome is important to the communities in northwest Alaska. However, the increased maritime activity at the port is presenting an elevated risk of a marine casualty that could disrupt cargo operations, negatively impacting neighboring communities. A recent study of the port's maritime operations (Final Report on Nome Operating Procedures, Jun 24, 2017 by Captain Ed Page) identified the need for local, accurate wind, current and wave information to be provided to mariners that could aid vessels with ensuring safe entry and departure through the narrow breakwater opening to the outer port.

In 2017, the City/Port of Nome and the Marine Exchange of Alaska (MXAK) requested the Alaska Ocean Observing System's (AOOS) support for engineering and installation of a wave and current sensor buoy at the entrance to Nome's outer harbor. The U.S. Army Corps of Engineers (USACE) has also expressed interest in having a wave/current sensor near the harbor entrance. In response to this request, AOOS, which has an existing partnership with the Coastal Data Information Program (CDIP) for a wave buoy in lower Cook Inlet, requested that an additional wave buoy be placed offshore Nome. In exchange, AOOS has agreed to work with the Port of Nome and the MXAK to develop a partnership to support the

operation and maintenance of the buoy in Nome. The Datawell CDIP wave and current buoy will provide critical near real time wave height, direction and current speed and direction information to mariners operating in the Nome Port and Harbor. Operators will be able to check on significant current sets and wave conditions prior to making their approach, enhancing maritime safety. It will also provide information for local operators in the region, including dredge barges, fishing vessels, tourist boats and ships, and recreational users.

This document describes the project and outlines the roles and responsibilities of each party involved in the agreement. The parties to this agreement agree to notify the project lead (AOOS) should a conflict arise that may require a change to this agreement, or prevents accomplishment of this agreement.

Obligations of the Parties:

The parties to this agreement shall abide by the terms of this agreement to achieve the following goals according to each party's roles/responsibilities:

AOOS: AOOS agrees to provide operation and maintenance (O&M) support and insurance for safe operation of a CDIP buoy off the Port of Nome starting in July 2018. AOOS will also work closely with partner the Marine Exchange of Alaska (MXAK) in making the data available to all mariners through the AIS system, as well as posting a link to the near real-time data display on the AOOS Data Portal and the City of Nome's website. Responsibilities include:

1. Coordination of logistics for shipment of the buoy to and from CDIP (La Jolla, CA) to Nome, Alaska;
2. Coverage of expenses related to shipping of the buoy from CDIP to Nome;
3. Coverage of expenses related to a CDIP technician's travel to Nome to assist the Port of Nome with deployment and recovery of the buoy in 2018 (summer deploy, fall recovery), and possibly later as needed or recommended;
4. Coverage of expenses related to appropriate training of the Port of Nome personnel dedicated to this project effort to safely deploy and recover the buoy system;
5. Coverage of material costs for mooring anchor/chain;
6. Coverage of expenses related to shipping buoy from Nome to CDIP for routine calibration and repairs (every 2 years for a full-time deployment, 3-4 years for partial year usage, or as needed);
7. Coverage of operations and maintenance costs for replacement batteries, paint, minor repairs to the buoy and materials required to sustain the mooring in Nome (including new mooring hardware as needed).

Coastal Data Information Program (CDIP): CDIP will cover central infrastructure costs including real-time data processing services and delivery of near real time data plus capital cost for one Datawell Waverider ® buoy with currents.

The City/Port of Nome: The City/Port of Nome accepts long-term responsibility for launching, retrieval and basic on-site maintenance, and will secure over-wintering storage for the buoy inside a heated facility. Nome will provide a vessel/ship and technical personnel support (a boat operator and 1-2 personnel) for safe deployment and recovery of the wave buoy and mooring off the Port of Nome in the summer and prior to freeze-up in the fall. Responsibilities include:

1. Providing access to an appropriate marine vessel/boat equipped with a winch system, A-Frame or drop-down bow door system that can safely deploy a 1400 lb anchor and 450 lbs buoy in up to

100 feet of water. Note: the anchor is not recovered, rather the buoy is recovered using acoustic release;

2. Providing personnel who can be trained to assist with deployment (early open water season) and recovery (prior to freeze-up), with the intention that these persons will be able to deploy and recover, including buoy rescue operations, the wave buoy in the future with or without CDIP technicians;
3. Agreeing to work with AOOS and partners on responding to buoy needs during the deployment, including the possible recovery should the buoy break loose or relocating the buoy should there be an issue with the position of the mooring. Conducting on-site maintenance of the buoy and mooring as allowed, to include:
 - a. basic buoy inspection at deployment and recovery;
 - b. making photos of the buoy available to CDIP Buoy Program technician;
 - c. on-site inspection of buoy and implementing minor repairs with guidance from CDIP Buoy Program technician (e.g., touch-up painting);
 - d. mooring assembly/disassembly prior to deployment and after recovery prior to over-winter storage;
 - e. buoy and mooring material cleaning at guidance of CDIP Buoy Program technician after recovery prior to over-winter storage;
4. Making efforts to safely recover the buoy if it goes adrift, which includes maintaining a list of vessels available for such recovery. CDIP will require the contact information for three people to call in case the buoy goes offsite (in priority order);
5. Providing transport of the buoy between the warm storage facility to the vessel during deployment and recovery efforts, and keeping the buoy in a secure and safe location during all these activities;
6. Providing local (Nome) indoor heated storage (must be above 40 deg F) for the buoy during winter months, and maintaining the buoy to avoid exposure to freezing point conditions during transit to and from storage;

NOTE: The Wave Buoy contains sensors that cannot freeze. Once frozen, the entire buoy system will need to be returned to the manufacturer in the Netherlands.

7. The City/Port of Nome will report any issues they encounter regarding the buoy directly to the CDIP program persons listed below.

techs@cdip.ucsd.edu

(includes Julie Thomas, Jim Behrens, Andrew Gray, Victor Aguilar and Les Hanson).

Marine Exchange of Alaska: The Marine Exchange of Alaska will work towards making real-time CDIP wave and current data available through the Automated Information System (AIS).

Funding

This agreement is not a commitment of funds to any of the participating organizations.

Each party to this agreement shall give credit to the wave buoy in this fashion:

“Support for this buoy and data is provided by the U.S. Army Corps of Engineers Coastal Data Information Program (CDIP), the Alaska Ocean Observing System, the Port of Nome and the Marine Exchange of Alaska.”

Duration

This document is at-will and may be modified by mutual consent of authorized officials from AOOS, the City/Port of Nome, CDIP and the Marine Exchange of Alaska. This document shall become effective upon signature by the authorized officials from the AOOS, the City/Port of Nome, CDIP, and the Marine Exchange of Alaska and will remain in effect until modified or terminated by any one of the partners by mutual consent. In the absence of mutual agreement by the authorized officials from AOOS, the City/Port of Nome and CDIP, this agreement shall end on December 31, 2023.

Contact Information**AOOS**

Carol Janzen, Ph.D.
Director of Operations and Development
Alaska Ocean Observing System
1007 West 3rd Ave, Suite 100, Anchorage, AK 99501

Carol Janzen: 907-891-6543
janzen@aoos.org

CDIP

James Behrens or Julie Thomas
Program Managers
Coastal Data Information Program (CDIP), Scripps Institution of Oceanography, UCSD
8855 Biological Grade
Isaacs Hall, Suite 100, UCSD
La Jolla, CA 92093

Jim Behrens: 858-534-1662
619-972-1923 Cell
jb@cdip.ucsd.edu

Julie Thomas: 858-534-3034
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jthomas@ucsd.edu

City/Port of Nome

Joy Baker, Port Director
Lucas Stotts, Harbormaster
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Nome AK 99762
Main office: (907) 443 - 6619

Joy Cell: (907) 304-1905
jbaker@nomealaska.org

Lucas Cell: (907)-304-1906
lstotts@nomealaska.org

MXAK

Bill Benning
Chief Technical Officer

Marine Exchange of Alaska
1050 Harbor Way
Juneau, AK 99801

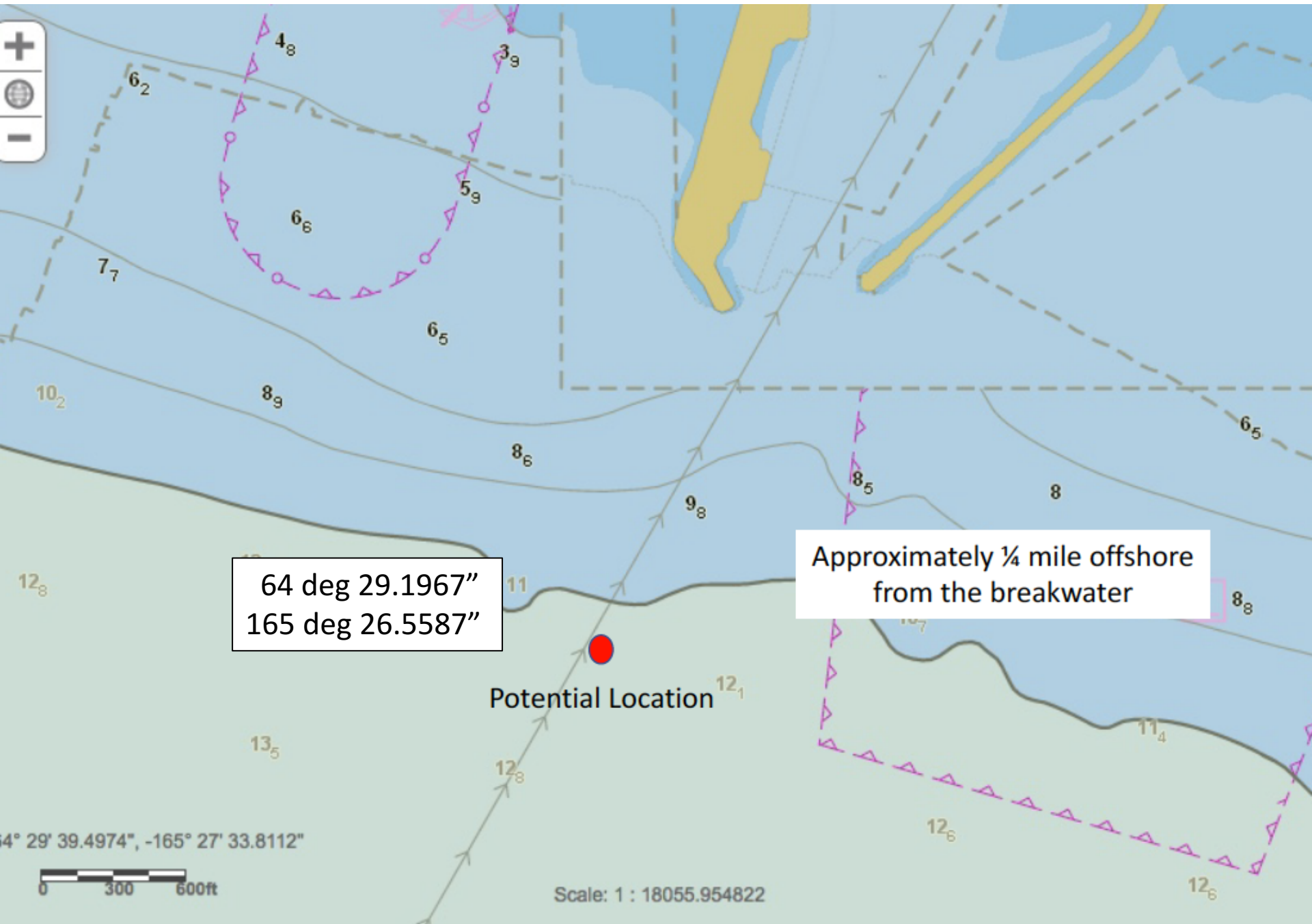
Bill Benning: (907) 463 3937
Main Office: (907) 463 2607
billbenning@mxak.org

_____ Date: _____
Alaska Ocean Observing System (AOOS)
Molly McCammon, AOOS, Executive Director

_____ Date: _____
Coastal Data Information Program (CDIP)
Julie Thomas, CDIP, Program Manager

_____ Date: _____
City/Port of Nome
Joy Baker, Port of Nome, Port Director

_____ Date: _____
Marine Exchange of Alaska
Captain Ed Page, Executive Director





June 6, 2018

Thomas Moran
City of Nome
102 Division Street
Nome, AK 99762

Subject: Nome Solid Waste Incinerator

Dear Mr. Moran:

Bristol Engineering Services Corporation (Bristol) is pleased to submit a design fee proposal to the City of Nome for a new solid waste incinerator for international marine waste. We understand the Port of Nome's initiative to develop a Port Waste Reception Facility. The addition of an incinerator will allow acceptance of international waste. Bristol has developed the following design fee and scope of work based on correspondence with the Port Commission, design sub-consultants, past projects, and independent research of our own.

SCOPE OF SERVICES

The project will consist of the design of a solid waste incinerator at the Nome Municipal Landfill at Beam Road. The incinerator will be housed in a Pre-Engineered Metal Building (PEMB). Bristol will assist the City with selection of an incinerator as part of the design process. The design will also include a cart enclosure at the Port, and the selection of carts and an appropriate haul vehicle for the carts. The project includes a 95% cost estimate, the development of an Air Permit in accordance with 18 AAC 50, and requests for construction approval from DEC Solid Waste and the State of Alaska Division of Fire and Life Safety.

Bristol has assembled a team of architects and engineers consisting of the following firms:

- Civil Engineering - Bristol
- Structural Engineering – Bristol
- Surveying – George Krier
- Architectural Design – GDM
- Electrical Engineering – EDC, Inc.
- Mechanical Engineering – EDC, Inc.
- Geotechnical Engineering – Golder Associates
- Cost Estimating – HMS, Inc.

Bristol has developed the following scope of services to outline the project approach and anticipated work. The following is a list of tasks for the solid waste incinerator:

Task 1: General Project Management

This task provides general project management services of the civil portion of the contract. Items under this task may include monthly status updates, project scheduling, Owner meetings, general management, project start-up and closeout, and other miscellaneous services.

Task 2: Geotechnical Report

Golder Associates will provide geotechnical recommendations based upon existing data from prior site investigations. Additional test pits are not anticipated at this time. Please see attached fee estimate from Golder for a detailed description of their proposed SOW.

Tasks 3 – 6 : Civil & Surveying / Structural / Mechanical & Electrical / & Architectural Code Review

Bristol will manage the preparation for the design package and all design firms for the timely completion and submittal of documents. Deliverables will consist of a concept design, draft design and final design.

Surveying

George Krier will complete a design survey of the lot, which will document site features and provide the designers with a base map for the building siting.

35% Draft Design Package

- All exterior elements of site design including site layout, building foundation plan, building structural details, grading plan, pad details, and typical details.
- Utility design will be limited to electrical power.
- All interior elements of a facility including full details of mechanical and electrical systems, slab on grade, structural details, roofing plans, and interior layout plans.
- Design plans shall consist of architectural drawings; and civil, mechanical, electrical, and structural engineering drawings.
- Preliminary specifications will be developed in bound, book format.
- Submit Draft Design Package to the City for review.
- Nome will review design and provide Bristol comments. Concurrently, Bristol will conduct an internal QA/QC review.
- Bristol will plan to attend design review meetings telephonically. Project specific trips are not anticipated.
- Bristol will coordinate all review comments with the design team.
- Architectural code review for PEMB development.

95% Draft Design Package

- Develop 95% design package that addresses all comments from previous design submittal.
- Conduct internal QA/QC review on 95% design package and incorporate comments into design.
- Submit Draft Design Package to the City for review.
- Bristol will attend design review meetings telephonically.
- Bristol will coordinate all review comments with other designers.

Final Design Package

- Develop final design package that addresses all comments from previous design submittal.
- Conduct internal QA/QC review on final design package and incorporate comments into design.
- Submit the Final Design Package to the City. Plans and specifications will be signed and sealed by the Designer or Record for each discipline, ready to go out to bid.

Task 7: Permitting

This will consist of the following subtasks:

- Air Permitting: Prepare an application for a Minor Air Permit, in accordance with 18 AAC 50.502-560. Minor permits are required for one or more incinerators with a cumulative rated capacity of 1,000 pounds or more per hour. "Minor" Sources are regulated by the State: Title I Permit (construction permit issued before Oct 1, 2004, Permit to Operate issued before Jan 18, 1997, or minor permit). Minor Permit Application: <http://dec.alaska.gov/air/ap/constructionperapp.html>.
- State of Alaska Division of Fire and Life Safety: Submit the 95% design package to State of Alaska Division of Fire and Life Safety office for plan review and acceptance.
- ADEC Solid Waste Permit: Submit the 95% design package to State of Alaska Solid Waste Division for plan review and acceptance.

Task 8: Cost Estimating

HMS, Inc. will provide an estimate based on the 95% draft design. Please see attached fee proposal from HMS, Inc.

ASSUMPTIONS

- Construction administration and bidding services are not included in the proposed SOW. On-site inspection during the construction phase is not include in this estimate.
- No archaeological support services are included.
- Design submittals will be provided as half-size hard copies (11x17 plan sheets), and in electronic format. The required number of full-size drawings will be provided for ADEC and State Fire Marshal permitting.
- Permit review fees are not included, and will be paid directly to the agencies by the City to eliminate markup.
- Specifications will be bound, book-type specifications.
- Deliverables will include three design package submittals; 35% draft design, 95% draft design and final design.
- If an Environmental Report, wetlands investigation, USACE Jurisdictional Determination request, USACE application, or coordination with the FAA is required, Bristol can provide these services for an additional fee.
- An update to the Nome Solid Waste Permit or Landfill Operations Plan is not included in this SOW. This update would take place under the existing Task Order #5.

DELIVERABLES

- Geotechnical Memorandum
- 35% draft drawings and specifications

- 95% draft drawings and specifications
- Final design drawings and specifications
- Air Permit
- State Fire Marshall Submittal
- Electric Utility Extension Application
- 95% Cost Estimate

SCHEDULE

This work would be expected to be completed by March 31, 2019 assuming a NTP is provided by July 1, 2018. The period of performance of this Contract will end on December 31, 2019.

FEE PROPOSAL

We propose to furnish the above-described services on a time and expense (T&E) basis. At this time we suggest budgeting **\$120,040** for these services which will not be exceeded without prior authorization by you. Bristol has provided an itemized fee as part of this proposal and it is included as Attachment A. We will keep you apprised when we come to 80 percent expenditure of this amount so that we can further discuss our scope of work and any necessary revisions to the budget. Any work completed as part of this project, beyond the scope of services outlined in this proposal, will be invoiced on a time and expense basis using rates listed in our current Schedule of Fees, see Attachment B.

If you have any questions please feel free to contact me at 907-743-9356, or through my e-mail at jblees@bristol-companies.com.

Very Respectfully Yours,

John Blees, P.E.
Project Manager

Attachments:

- Attachment A – Master Fee Proposal
- Attachment B – Subconsultant Fee Proposals
- Attachment C -- Bristol Schedule of Charges

Price per Task Summary

	FIRM: 	PROJECT TITLE: Nome Incinerator			
Date:	6/6/2018				
Fee type:	Time and Expense				

Task	Description	Labor	Expenses	Subs	Total Price
1	Project Management	\$2,218	\$0	\$0	\$2,218
2	Geotechnical Engineering	\$846	\$0	\$3,675	\$4,521
3	Civil Engineering	\$33,232	\$165	\$3,150	\$36,547
4	Structural Engineering	\$23,821	\$0	\$0	\$23,821
5	Mechanical - Electrical Engineering	\$2,777	\$0	\$23,993	\$26,770
6	Architectural Design & Code Review	\$942	\$0	\$3,988	\$4,930
7	Permitting	\$15,881	\$110	\$0	\$15,991
8	Cost Estimating	\$846	\$55	\$4,342	\$5,243

Total Fee= \$120,040

Coastal Response Research Center and Center for Spills and Environmental Hazards

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State-of-Science for Dispersant Use in Arctic Waters

Background on the State-of-Science for Dispersant Use in Arctic Waters Initiative:

Chemical dispersants were employed on an unprecedented scale during the Deepwater Horizon oil spill in the Gulf of Mexico, and could be a response option should a large spill occur in Arctic waters. One of the outcomes of an Arctic oil spill drill for senior federal agency leadership identified the need for a definitive evaluation of the state-of-science of dispersants and dispersed oil (DDO), particularly as it applies to Arctic waters.

To address this need, the Coastal Response Research Center (CRRC) coordinated a discussion among scientists with dispersant research expertise, as well as those with Arctic expertise, to determine the state-of-science (knowns and uncertainties) regarding DDO, as it applies to Arctic waters. Separate panels of scientists were convened to focus on each of the following topics concerning DDO:

1. Efficacy and Effectiveness;
2. Physical Transport and Chemical Behavior;
3. Degradation and Fate;
4. Eco-Toxicity and Sublethal Impacts; and
5. Public Health and Food Safety.

An outline of the sub-topics covered under each topic [here>>](#)

[All About Sea Ice and Formation \[here>>\]\(#\)](#)

The outcomes of the initiative include:

- CRRC developed a database of research/reference documents on DDO for each topic that were published between June 2008 and December 31, 2015. Links to each specific topic database are listed below. (The CRRC database includes documents published after the LUMCON database (<https://lumcon.edu/library/>) [scroll down to find dispersants] which has an end date of June 2008.)
- Based on the literature, the scientists made statements for each topic delineating what is known about the state-of-science regarding DDO as it applies to Arctic waters.
- The scientists also made statements for each topic delineating the uncertainties about the state-of-science regarding DDO as it applies to Arctic waters.

The CRRC is requesting written input from the public on the statements of *knowns and uncertainties* developed by each of the scientific panels. The process and schedule for submitting written input is outlined below. Please note that there are five documents for which you will be able to submit written input. These will be released and input will be requested sequentially. Please see below for the dates as they apply to each topic.

After reviewing the statements of *knowns and uncertainties* for a specific topic, you may provide suggestions on what to add or remove or change about these statements regarding the state-of-science using a Written Input Submission Form. There is a separate, unique submission form for each topic. Input will be reviewed and considered by each panel of scientists. We request that you submit your written input on an individual basis, as we are not seeking consensus advice.

If you have questions, please contact info.ddoinitiative@unh.edu.

[Sample public input form for submissions here>>](#)

Topics for Input:

Topic 1: Efficacy and Effectiveness

FINAL DOCUMENT: State-of-the-Science of knowns and uncertainties about the Efficacy and Effectiveness of dispersants and dispersed oil as it applies to their use in Arctic waters.

CRRC Database for Efficacy and Effectiveness [here>>](#) . (updated July 2016) [*Note: this database continues to be updated as publications are forwarded to CRRC. This is not a complete listing of dispersant-related topics. However, this is the database (up to December 2015) that the Panel reviewed and some of which were cited in the document.*]

Efficacy and Effectiveness Panelists [here>>](#).

State-of-the-Science on Efficacy and Effectiveness of DDO as it applies to their use in Arctic waters. This document was submitted for Public Input (1/22 - 2/22/2016).

Topic 2: Physical Transport and Chemical Behavior

FINAL DOCUMENT: State-of-the-Science of knowns and uncertainties about the Physical Transport and Chemical Behavior of dispersants and dispersed oil as it applies to their use in Arctic Waters.

CRRC Database for Physical Transport and Chemical Behavior [here>>](#) .(updated July 2016) [*Note: this database continues to be updated as publications are forwarded to CRRC. This is not a complete listing of dispersant-related topics. However, this is the database (up to December 2015) that the Panel reviewed and some of which were cited in the document.*]

Physical Transport and Chemical Behavior Panelists [here>>](#) .

State-of-the-Science on Physical Transport and Chemical Behavior of DDO as it applies to their use in Arctic waters. This document was submitted for Public Input (2/29/16 - 3/29/16).

Topic 3: Degradation and Fate

FINAL DOCUMENT: State-of-the-Science of knowns and uncertainties about the Degradation and Fate of dispersants and dispersed oil as it applies to their use in Arctic Waters.

CRRC Database for Degradation and Fate [here>>](#). (updated July 2016) [*Note: this database continues to be updated as publications are forwarded to CRRC. This is not a complete listing of dispersant-related topics. However, this is the database (up to December 2015) that the Panel reviewed and some of which were cited in the document.*]

Degradation and Fate Panelists [here>>](#)

State-of-the-Science on Degradation and Fate of DDO as it applies to their use in Arctic waters. This document was submitted for Public Input (4/4/16 - 5/4/16)

Topic 4: Eco-Toxicity and Sublethal Impacts

FINAL DOCUMENT: State-of-Science of knowns and uncertainties about the Eco-Toxicity and Sublethal Impacts of dispersants and dispersed oil as it applies to their use in the Arctic.

CRRC Database of Publications for Eco-Toxicity and Sublethal Impacts [here>>](#). [Note: this database continues to be updated as publications are forwarded to CRRC. This is not a complete listing of dispersant-related topics. However, this is the database (up to December 2015) that the Panel reviewed and some of which were cited in the document.]

Eco-Toxicity and Sublethal Impacts Panelists [here>>](#)

State-of-the-Science on Eco-Toxicity and Sublethal Impacts of DDO as it applies to their use in Arctic waters. This document was submitted for Public Input (4/20/17 to 5/24/17)

Topic 5: Public Health and Food Safety - Open for review: [Public Input period will be June 4 - July 13, 2018 by 5:00 pm ET.](#)

State-of-Science of knowns and uncertainties about the Public Health and Food Safety of dispersants and dispersed oil as it applies to their use in the Arctic. Document for review [here>>](#)

CRRC Database of Publications for Public Health and Food Safety [here>>](#)

Public Health and Food Safety Panelists [here>>](#)

Public input form for submissions [here>>](#) Please email responses to: public.health@unh.edu



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A partnership between the National Oceanic Atmospheric Administration (NOAA) and the University of New Hampshire

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PHYSICAL EFFECTS OF CHEMICALLY DISPERSED OIL ON COMMON MURRES (*URIA AALGE*) - PRELIMINARY FINDINGS



Emily Whitmer, Becky Elias, Michael Ziccardi

Karen C. Drayer Wildlife Health Center, University of California, Davis

Objective

- To investigate changes in waterproofing, feather structure, thermoregulation, and behavior of live seabirds exposed to chemical dispersant and to chemically dispersed crude oil.

Background

Acute impacts of oil contamination on seabirds are well documented, with immediate effects being primarily external in nature. Seabird plumage forms a waterproof barrier between the body and the environment. Oil contamination disrupts this barrier and allows water to penetrate to the skin. The resulting loss of buoyancy, inability to maintain core body temperature, and impaired ability to fly or dive can lead to death.

Chemical dispersants are often considered during marine oil spill response, as they are assumed to provide a net environmental benefit by reducing risks of sea-surface exposure and coastal habitat contamination. However, the acute, physical effects of exposure to chemical dispersant and chemically dispersed oil on seabirds are largely unknown.

In a pilot study, we found that exposure of individual seabird feathers to Corexit® EC9500A and/or Prudhoe Bay crude oil resulted in disruption of normal feather geometry; however, effects of this disruption on live animal waterproofing could not be inferred. This study, therefore, examines the feather disruption caused by chemical dispersants and/or chemically-dispersed oil to determine physical impacts to live seabirds.

Methods

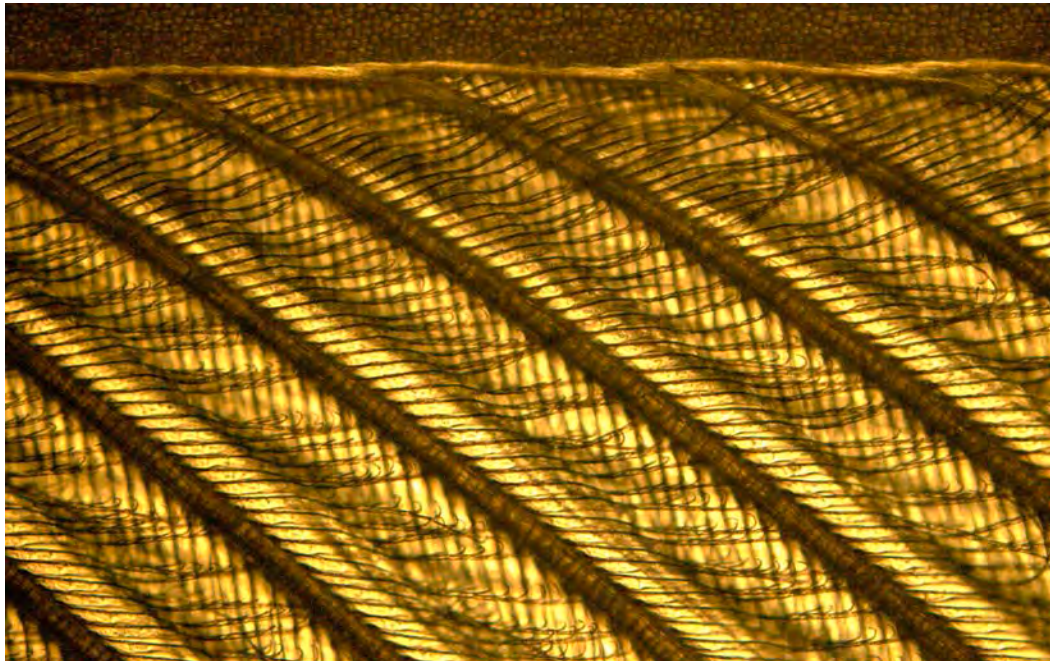
As part of a large, multifactorial study, wild-caught common murres (*Uria aalge*; n=36) were exposed to increasing concentrations of dispersant, crude oil, or dispersed oil in artificial seawater under controlled conditions.

Immediately after (day 0) and on days 1 and 2 post-exposure, birds were placed in uncontaminated water for 40- or 60-minute free-swim periods. Water penetration through plumage (“waterproofing”) was assessed during each swim period. Birds were cleaned using standard rehabilitation protocols on day 3 after exposure, and then released after a 3-day conditioning period.

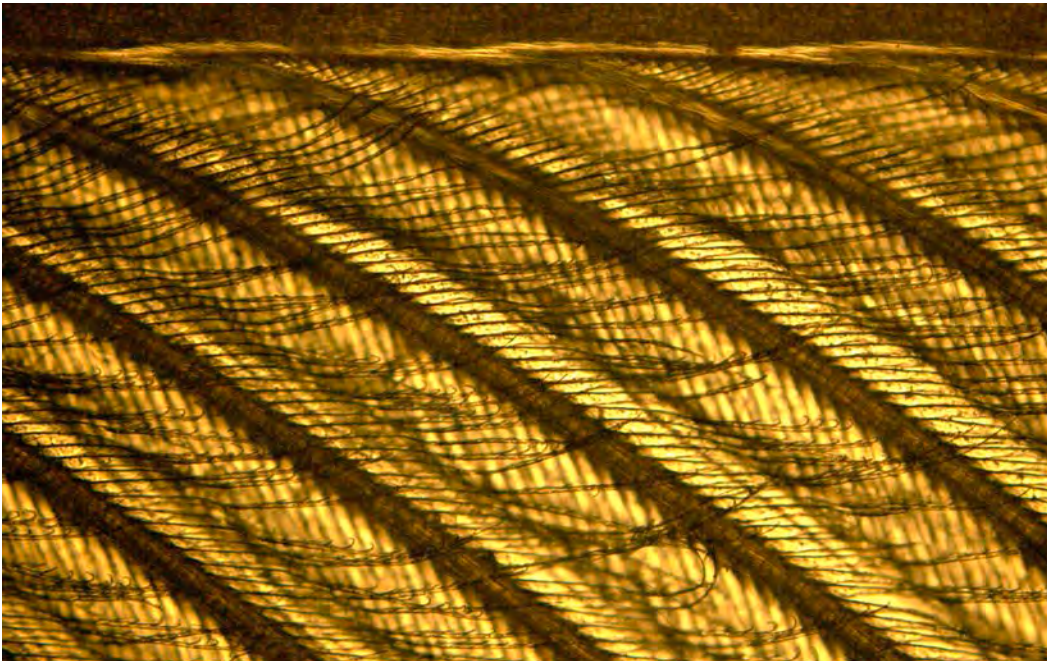
Additional data collected include video-recorded behavior and serial feather samples, thermograph images, core body temperature measurements, complete blood counts, and serum chemistry profiles.

Treatment	Concentration	
	Dispersant	Oil
Control	-	-
Dispersant ¹	Low	0.01mL/L
	Medium	0.1
	High	1.0
Oil ²	Low	-
	Medium	-
Dispersed Oil ³	Low	0.01
	Medium	0.1

¹Corexit® EC9500A, ²Prudhoe Bay Crude Oil, ³1:20 dispersant to oil



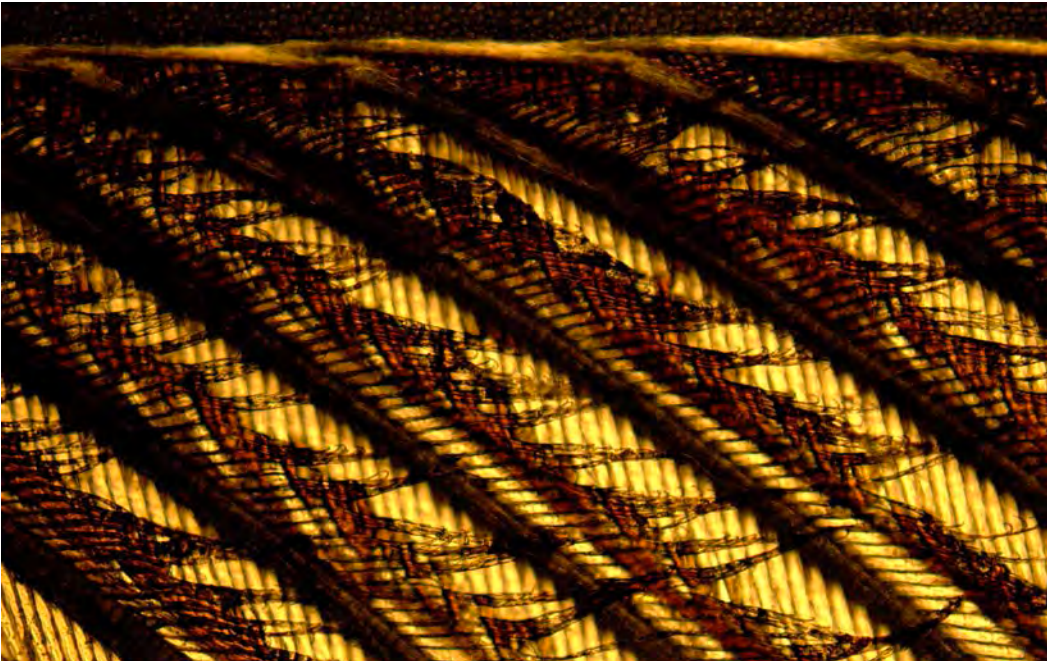
Control



Medium Dispersant



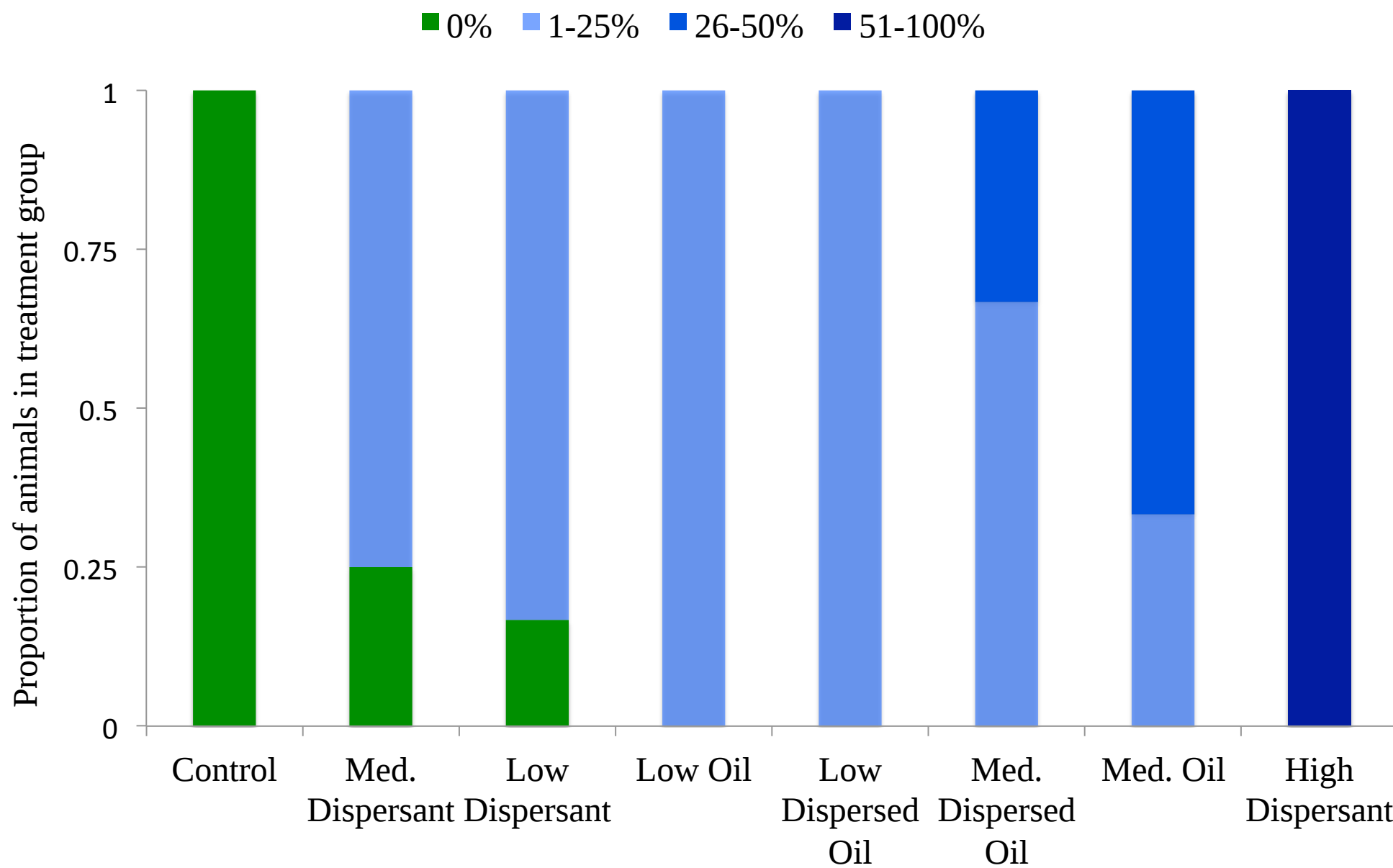
Medium Oil



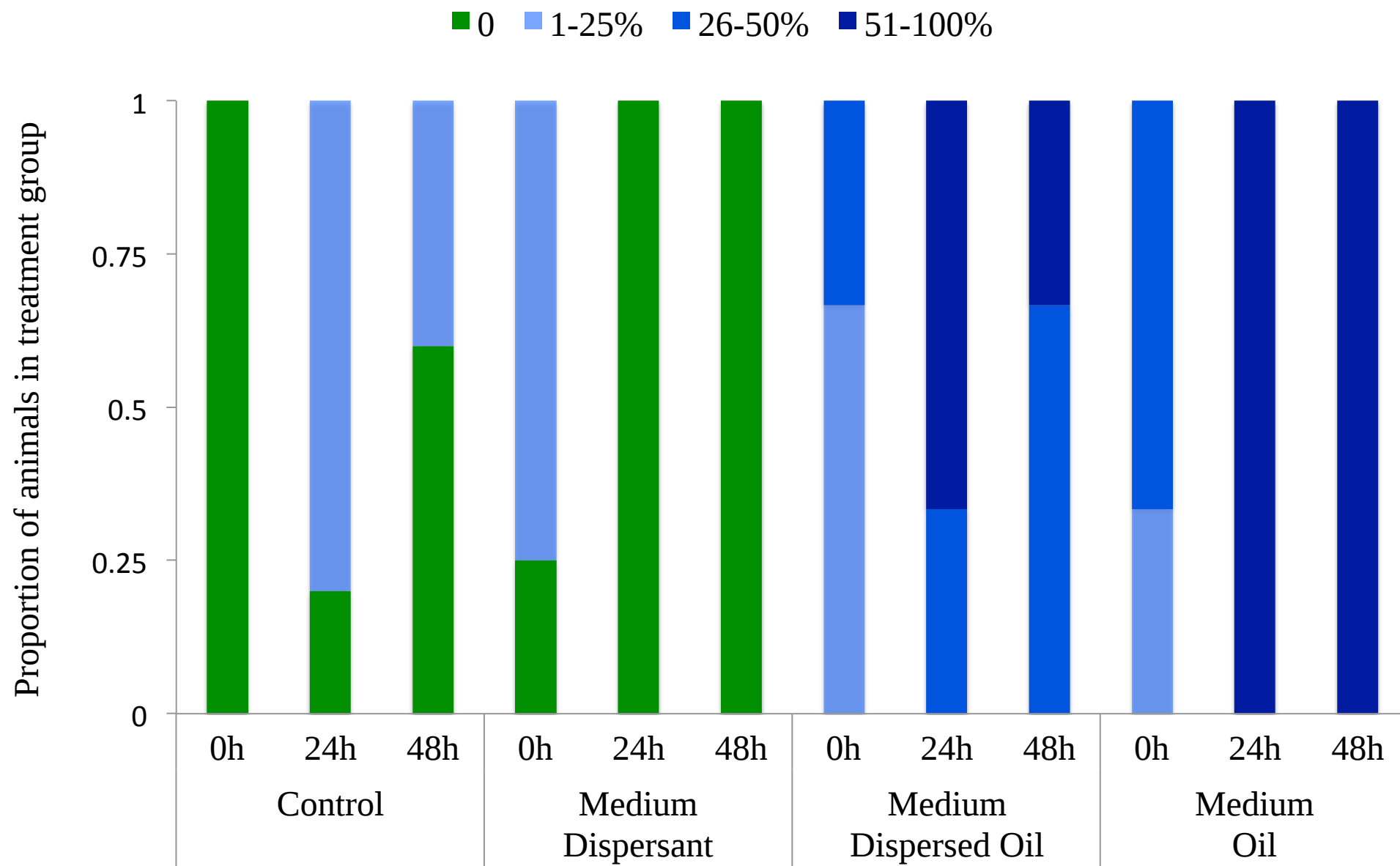
Medium Dispersed Oil

Light microscopy images (100x) of feather samples collected immediately after exposure. Feathers exposed to oil and dispersed oil have visible foreign material and clumping of feather “barbules” which will result in penetration of water through the plumage. Clumping and overall disarray is present but less pronounced in the feather exposed to dispersant.

Percent of body surface area wet to skin immediately after exposure



Percent of body surface area wet to skin at 0, 24, and 48 hours after exposure



Initial Key Results

- Immediate observed effects for all oiled and dispersant-exposed groups included (in a dose-dependent fashion); water penetration through plumage to skin, decreased core body temperature, increased preening, and loss of buoyancy.
- No significant differences in water penetration were found between groups exposed to oil and those exposed to dispersed oil (Kruskal-Wallis test, $p > 0.05$ for all comparisons).
- Birds in the high dispersant group experienced complete loss of waterproofing and life-threatening loss of buoyancy.
- Loss of waterproofing in the dispersant-only groups was resolved by 24 hours after exposure. Loss of waterproofing in oil and dispersed oil groups did not resolve until after cleaning.
- There were no significant differences in distribution of water penetration scores between treatment groups one day after cleaning (Kruskal-Wallis test, $\chi^2(7) = 10.87$, $p = 0.144$).



Common murres in the medium dispersed oil group have decreased buoyancy due to loss of waterproofing. One bird is treading water with its wings in order to remain afloat, while the other floats with folded wingtips below the water line.

Below, an uncontaminated bird floats high in the water.

Conclusions

- The impacts of exposure to chemical dispersant and chemically dispersed oil within the first 24 hours are similar to the impacts of exposure to oil.
- The data do not support the assumption that exposure to chemically dispersed oil has decreased risk of morbidity and mortality as compared to exposure to oil without dispersant.
- Exposure to high concentrations of dispersant impairs waterproofing to such an extent that affected animals may drown rapidly.
- Current protocols for cleaning oiled seabirds are equally effective for birds contaminated with dispersant and dispersed crude oil as for birds contaminated with crude oil.

Acknowledgments We thank J. Adams, Y. Addassi, N. Anderson, C. Clumpner, R. Duerr, J. Felis, C. Fiorello, B. Henry, J. Gaydos, D. Goodfriend, L. Henkel, S. Herman, S. Kosina, G. Massey, W. Massey, H. Nevins, R. Tjeerdema, S. McCarthy, K. Mills-Parker, T. Williamson, and C. Young for their invaluable contributions. This project was completed with funding from the Karen C. Drayer Wildlife Health Center, the California Department of Fish and Wildlife Office of Spill Prevention and Response, and the Endowment of the School of Veterinary Medicine, University of California, Davis.