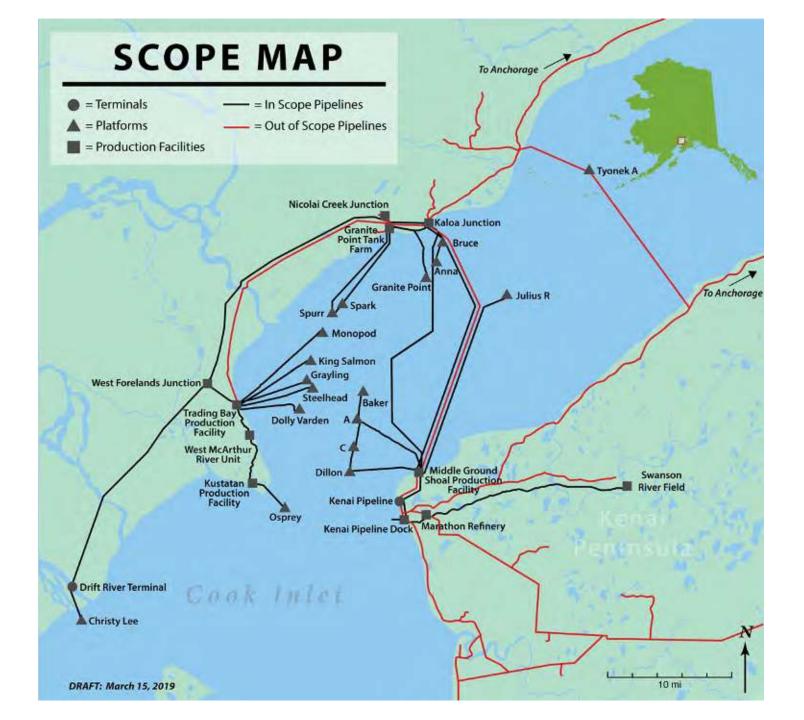
Cook Inlet Pipeline Integrity Assessment

Update to Cook Inlet Regional Citizens Advisory Council September 6, 2018

Scope



Phases

- Phase 1 Describe the <u>regulatory framework</u> for pipelines and inventory pipelines in Cook Inlet
- Phase 2 Validate and improve the <u>inventory</u> with the pipeline operators and investigate loss of integrity events
- Phase 3 Expert panel reviews information collected, interacts with the operators and public, and develops and documents their recommendations

PHASE 3 –

Expert Panel

Expert Panel Charter:

 Maintain the structural integrity of Cook Inlet pipelines by recommending measures to reduce the risk of failures of this aging infrastructure.

Expert panel has demonstrated knowledge in one or more of the following areas:

- General knowledge of crude oil production operations and measures used to:
 - Inspect for aging conditions
 - Detect leaks
 - Prevent leaks and spills
- Knowledge of loss-of-integrity root cause investigations and common cause analysis
- Knowledge of analysis of leak data and general engineering practices

Expert Panel process -- status

- Initial Expert Panel Webinar February 2019
- Meeting in Anchorage May 2019
 - Reviewed inventory
 - Met with agencies, Hilcorp representatives
 - Identified questions for other operators sent via letter
- Developed scenarios for potential releases to score as way of focusing recommendations
- Meeting next in Anchorage in late Sept to review scenarios and develop preliminary recommendations
- Refined recommendations and report to follow late 2019/early 2020
- Final project completion before June 2020

PHMSA Technical Assistance Grant: Cook Inlet Pipeline Infrastructure Public Outreach

Final Presentation

CIRCAC Board of Directors





≡ Menu







Furie Operating Alaska's Julius R Platform, installed in 2015 in Cook Inlet, is seen in this courtesy photo. (Photo/Courtesy/Furie Operating Alaska)

Public asked to comment on pipeline infrastructure efforts

Public Outreach: Public Website

Public Website: www.cookinletpipelines.com

This website provided background information on Cook Inlet pipelines as well as information about a public webinar and public meeting opportunities offered as part of the project. It also included an online survey intended to elicit either concerns, questions, or suggestions from interested members of the public. Information exchanged and comments provided by the public will be compiled into a summary report that will be shared with the public, operators, and state and federal agencies.



About Cook Inlet Pipelines

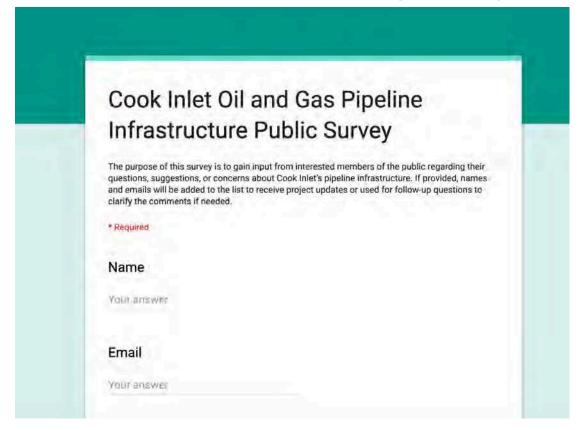
Public
Outreach
efforts:
Public Website

- 01. Where are there pipelines in the Cook Inlet area?
- 02. What role do the pipelines play in Cook Inlet oil production?
- 03. When were the pipelines installed?
- 04. Who operates Cook Inlet pipelines?
- 05. What changes have occurred in Cook Inlet pipelines in 2018?
- 06. What is the industry doing to ensure pipeline integrity?
- 07. How are Cook Inlet pipelines regulated?
- 08. What is CIRCAC doing to ensure pipeline safety?

Public Outreach: Online Survey

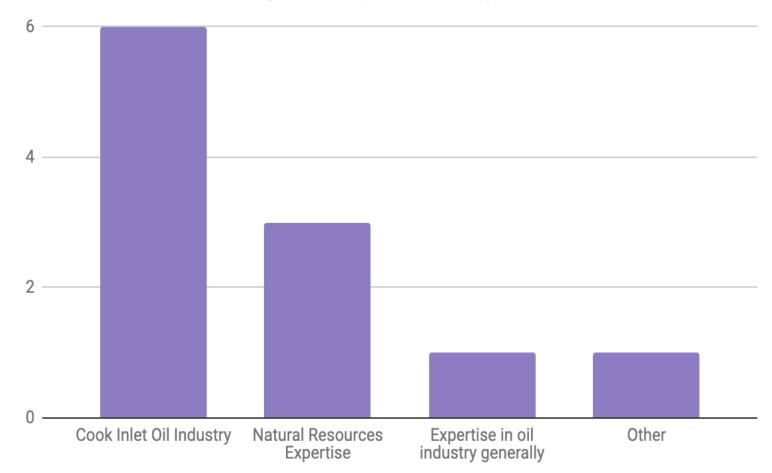
The purpose of this survey was to gain input from interested members of the public regarding their questions, suggestions, or concerns about Cook Inlet's pipeline infrastructure. Names and emails were added to the list to receive project updates or used for follow-up questions to clarify the comments if needed.

8 participants completed the survey during the project.



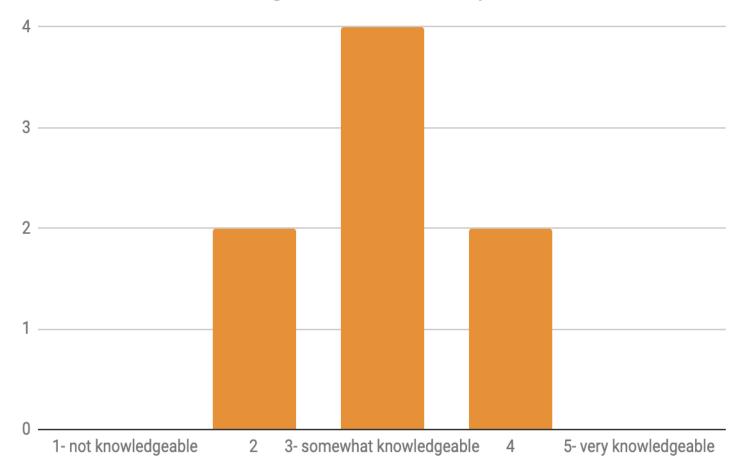
Survey Results: Participant Background

Survey Participant Background



Survey Results: Participant Background

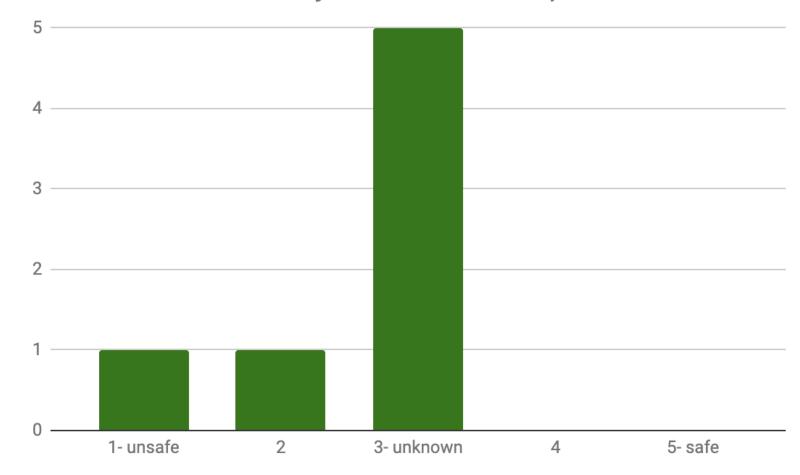
Knowledge of Cook Inlet Pipelines



Survey Results: Participant Background

Count

Perceived Safety of Oil and Gas Pipelines



TAG Project—

Public Webinar

Public Webinar: April 25, 2019 (10am)

This open webinar provided an opportunity for interested members of the public to offer questions, suggestions, or any concerns they have concerning Cook Inlet pipeline infrastructure. The feedback received from this webinar informed the content that was presented at the Public Meeting.



Public Webinar Participants

Participant	Affiliation (if known)
Vinnie Catalano	CIRCAC
Linda Giguere	CIRCAC
Von Reeve	State of Alaska
Samantha Carroll	State of Alaska
Gail Morrison	US Bureau of Ocean Energy Management
Linda Liu	US Bureau of Ocean Energy Management
Joel	US Bureau of Ocean Energy Management
Michael Schuster	Unknown
Lorena Edenfield	Unknown
Jennifer Tobey	University of Michigan
Pete LaPella	Unknown
Tim Robertson	Nuka Research
Sierra Fletcher	Nuka Research
Alyssa Hall	Nuka Research

TAG Project-

Public Meeting

Public Meeting May 8, 2019 (1pm)

This public meeting provided an opportunity for interested members of the public to learn more about Cook Inlet pipeline infrastructure, how it works, and how it is maintained. It will include an opportunity to ask questions of the pipeline operators. Proceedings from the meeting will be developed and included in a project summary report.



Meeting Agenda

AGENDA

1:00 pm Welcome & overview – Tim Robertson, Nuka Research
 1:15 pm Activities and roles regarding pipeline operations:

 Cook Inlet Regional Citizens Advisory Council – Vinnie Catalano, Director of Operations

 Alaska Dept of Environmental Conservation – Graham Wood, Program Manager, Prevention, Preparedness and Response Program
 Pipeline and Hazardous Materials Safety Administration – Dave Hassell (Operations Supervisor) and Tom Johnson (Senior General Engineer/Project Manager)
 Hilcorp Alaska, LLC and Harvest Alaska, LLC – Cindy Monnin, Alaska Integrity Manager for Hilcorp Alaska, LLC

Marathon – Scott Rosin, Area Manager for Pipeline & Terminals, Marathon

3:00 pm Questions Received from the Public—Tim Robertson
3:30pm Additional questions & discussion
Adjourn

Meeting Participants

Participant	Affiliation (if known)
Tom Stokes	Alaska Department of Natural Resources
Alan Dennis	Unknown
D. Shahnazarian	Unknown
Ember Vannoy	Hilcorp
Ben Wasson	Hilcorp
Tasha Bacher	Hilcorp
Erin McKay	Hilcorp
Robin Echols	Kendrick, LLC
Norman Straub	LII Associates
Linda Giguere	CIRCAC
Bob Shavelson	Cook Inletkeeper
Jeff Peng	University of Alaska
Von Reeve	State of Alaska
Laura Mansfield	US Bureau of Ocean Energy Management
Gail Morrison	US Bureau of Ocean and Energy Management
Gail Morrison	US Bureau of Ocean and Energy Management

- Emergency Response (2)
- Information/Data (2)
- Infrastructure (3)
- Inspection/Maintenance (13)
- Other (7)
- General Project (1)

- Emergency Response (2)
 - In the case of an emergency is it operational practice to shut down the flow of oil escaping into the environment?
 - What kind of spill response and prevention plans are in place?

- Information/Data (2)
 - Who manages locational information on the infrastructure is there one master dataset? How accessible is this information to others planning projects in the area, to the public?
 - Will agencies be able to receive a copy of the pipelines, facilities, etc., in GIS format? If so, what attributes will be included in the GIS data?

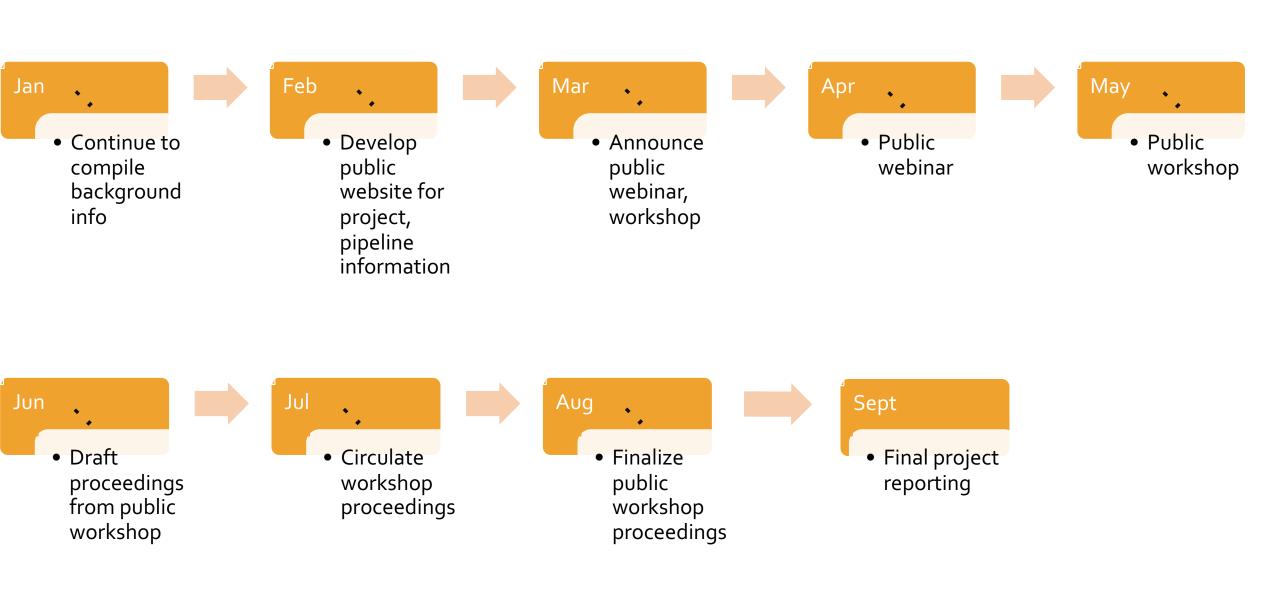
- Infrastructure (3)
 - Which undersea oil lines have/don't have shut off valves?
 - What is the relative proportion of pipeline ownership by company?
 - What kinds of products do Cook Inlet Pipelines hold?

- Inspection/Maintenance (13)
 - What lines, and what proportion of lines, are smart piggable? When were they last smart pigged? Status? What's the frequency of pigging?
 - For lines not smart piggable, what is the line condition, and how was that determined?
 - What is the integrity of the old pipes and the emergency closure valves?
 - How often are these pipes inspected? How? With cameras? By diving on them? Is the steel tested for integrity? Is there pitting?
 - How often is the condition of infrastructure assessed? Does the state assess the condition or receive assessments?
 - Pipelines should undergo regular testing.
 - Are best management practices being used to operate, maintain and assess Cook Inlet oil/gas infrastructure?
 - Can integrity testing and visual inspection be done by subsea submersible?
 - If there is an issue found in a line while doing maintenance, how are agencies alerted?
 - It would be better if more smart pig inspections are conducted.
 - What are the routine maintenance activities for each line and is there access to those reports through the company or regulatory agencies?
 - What measures are being used to protect against corrosion?
 - Are we seeing additional integrity management issues related to warmer weather patterns?

Categories of Public Questions & comments

- Other (7)
 - Charge us your customers for full assurance of safe operations.
 Charge us at the gas tank, in our heating oil but never cut corners to save money ever. Charge us. We are the customer and you must not stress us out by taking chances. The customer is always right!
 Charge us for the full cost of doing business. No cheap.
 - Being in the fishing industry we live in sheer terror of damage to our fisheries. It is imperative that you remain transparent and open like this questionnaire is great! We must open the dialog and sit at the table and learn and not damage the environment that sustains us. Please please be extra extra careful. Use technology that does not cause harm. Do not dump oily water into Cook Inlet just because you have an APDES permit. Centrifuge it. Re Inject it but don't dump it....then charge us! We are the customer. We need to pay for you to do it right! Charge us please.
 - I'm curious what spurred this public engagement effort. I commend you for engaging the public. I think that knowledge of your public engagement opportunities are not widely known in my community.
 - Will pipeline locations be included on NOAA Electronic Navigational Charts and Raster Navigational Charts?
 - Will there be more public outreach methods outside of this project?
 - Who is responsible for the abandoned pipeline in the inlet?
 - Will abandoned pipelines be required to be removed? If so, how will they be removed without ocean contamination?

- General Project (1)
 - Will this analysis include pipelines that are not currently in use or have been abandoned?



Draft Report information



Thank you

Questions?