



Cook Inlet Pipeline Infrastructure Assessment: STATUS UPDATE



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Overall Project Goals

- Anticipate potential problems as Cook Inlet pipeline infrastructure ages
- Recommend risk reduction measures for implementation *before* further loss-of-integrity issues
- Ensure high quality recommendations by gaining input from *experts*, *operators*, and the Cook Inlet public

Scope

- Cook Inlet area (on land & subsea)
- Pipelines that transport oil, gas, or three-phase liquid *associated with oil production*
- Preventing & promptly detecting spills (age, material, maintenance/integrity management, leak detection, security)

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- So...**not** including:
 - Refined product
 - Gas lines associated with gas production or commercial distribution
 - Spill preparedness or response

Ongoing PHMSA Task Force



Alaska Department of Administration
Alaska Oil and Gas Conservation Commission

CIRCAC Project Update

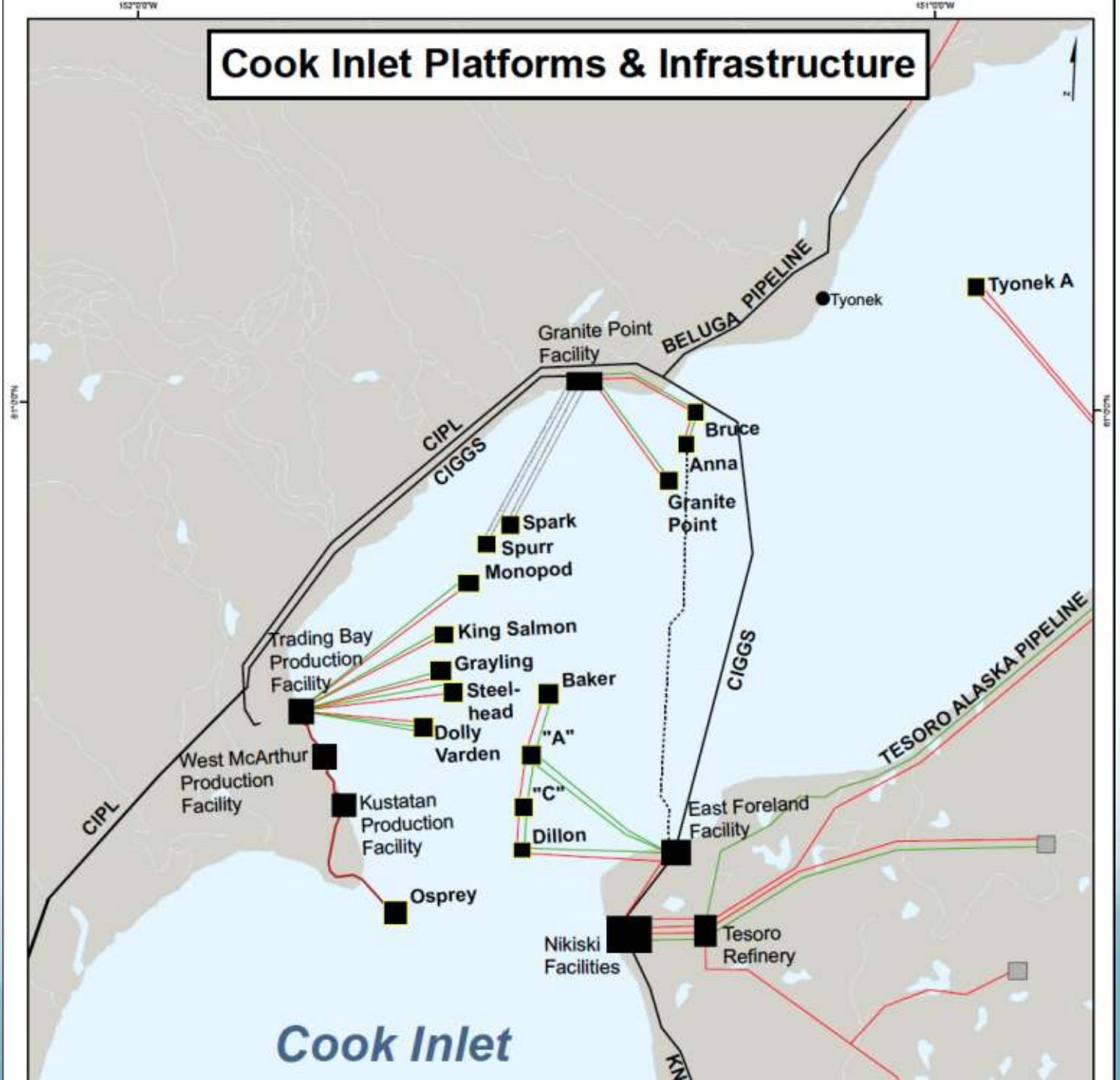
| Activity | Status |
|--------------------------------------|---|
| Pipeline inventory | <ul style="list-style-type: none">• Compiled from PHMSA, ADNR data• CIRCAC reviewed• NEXT STEPS: Compare with PHMSA Task Force, operator input |
| Regulatory overview | <ul style="list-style-type: none">• Compiled with input from state & federal agencies• NEXT STEP: Compare with PHMSA Task Force, send for agency review |
| Query operators | <ul style="list-style-type: none">• Pipeline inventory, integrity management, spill history |
| Research public information | TBD <ul style="list-style-type: none">• Integrity management plans• Spills database, investigation/inspection reports |
| Analysis, input from experts, public | TBD <ul style="list-style-type: none">• Public engagement• Expert elicitation |
| Recommended risk mitigation measures | TBD <ul style="list-style-type: none">• Final report |

Pipeline Inventory






Data Sources

- PHMSA pipeline files obtained with assistance from Anchorage and Kenai Peninsula Borough
- ADNR right-of-ways
- ADEC-required Oil Discharge Prevention and Contingency Plans (for information re: leak detection, etc.)
- Preliminary maps & spreadsheets developed

Pipeline Map



AK Regulatory Authorities

| Agency | Siting, Construction, Operations | Spill Response Planning/Response |
|--|--|---|
| Alaska Department of Environmental Conservation (ADEC) |  |  |
| Alaska Department of Fish and Game (ADFG) |  *special area permits |  |
| State Pipeline Coordinator's Office, Division of Oil and Gas (ADNR) |  *common carriers | |
| Alaska Oil and Gas Conservation Commission (AOGCC) | *preliminary: not specific to pipelines | |

Fed Regulatory Authorities

| Agency | Siting, Construction, Operations | Spill Response Planning/Response |
|--|----------------------------------|----------------------------------|
| National Marine Fisheries Service/National Oceanic and Atmospheric Administration (NOAA) *related to endangered species | | |
| PHMSA/Department of Transportation (DOT) | | *onshore pipelines only |
| US Coast Guard (USCG) | *transfer-to-vessel operations | |
| US Fish & Wildlife Service (USFWS) | | |

+ EPA as FOSC for inland spill

ADEC & PHMSA

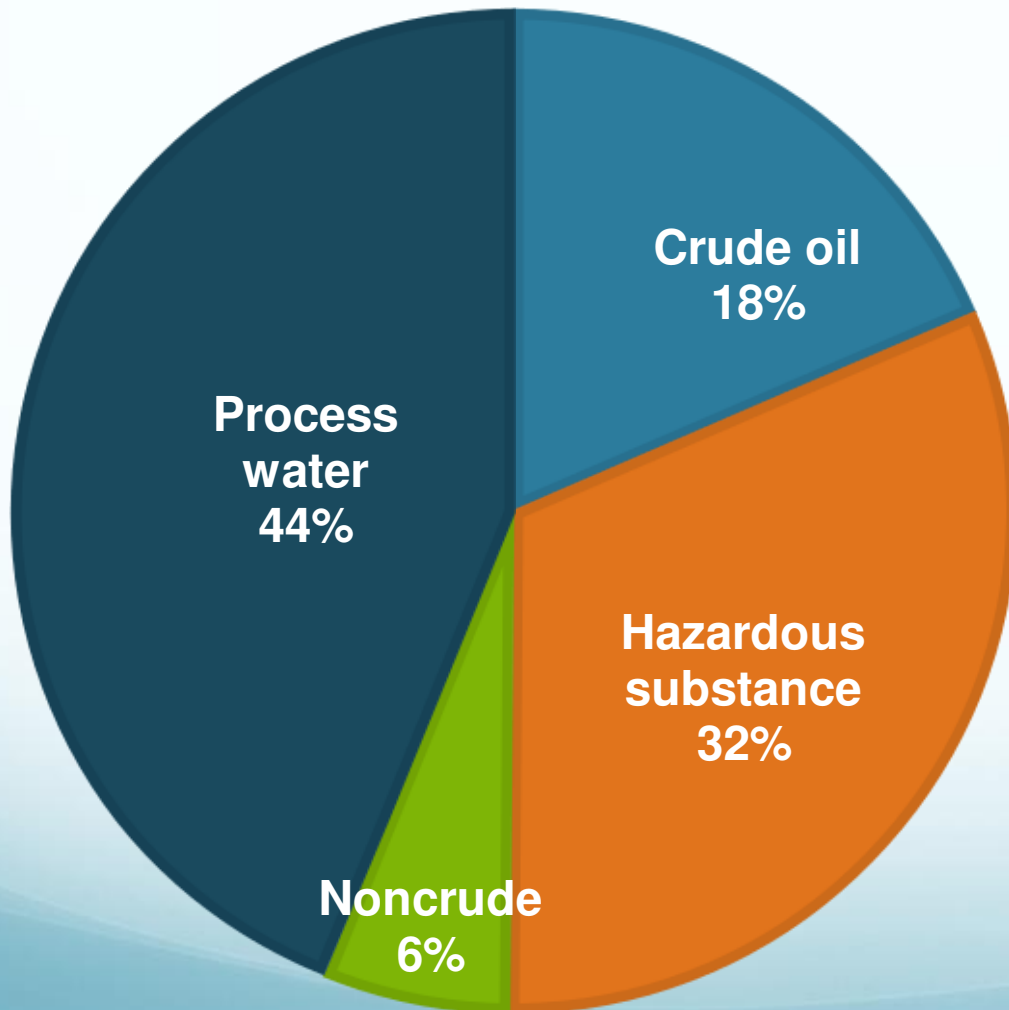
Generalized agency jurisdiction re: pipelines

| Type of Pipeline | ADEC | PHMSA |
|-----------------------|------|---|
| Gas pipelines | | X |
| Oil/hazardous liquids | X | X ("offshore," including Cook Inlet; varies depending on whether processing occurs on platform or on land) |

- Variations and exclusions depending on location, exact type
- On-going discussions with agencies, operator

Spill Volume (ADEC Spills Database)

2001 – July 2017



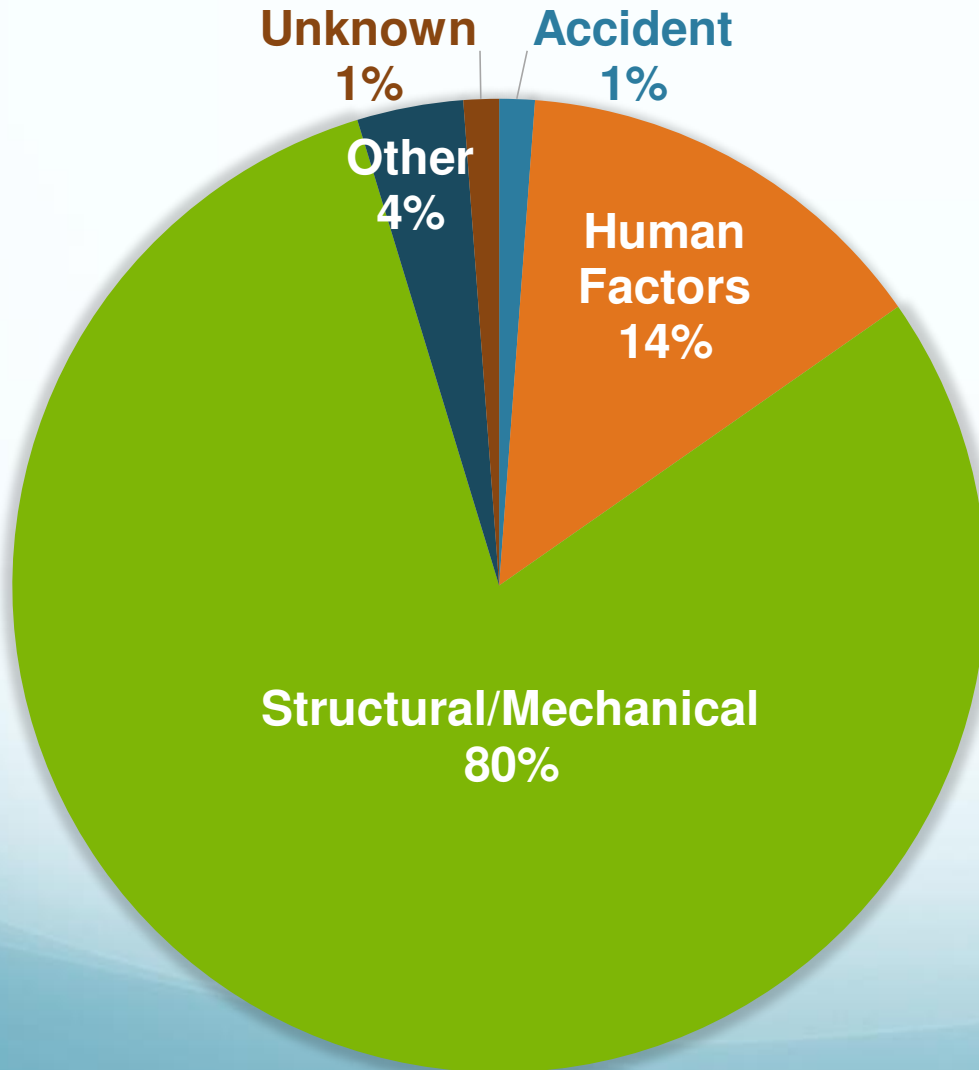
88 spills

**5,572 gallons total
from “Pipe or Line”**

Cook Inlet Subarea

Spill Cause (ADEC Spills Database)

2001 – July 2017



From “Pipe or Line”

Queries to Operators

- Confirm/revise pipeline data
 - Commodity transported
 - Diameter & length
 - Year of installation
 - Current status of use
- Pipeline safety & integrity management plans/procedures
 - Corrosion control
 - General maintenance/surveillance
 - Leak detection methods
 - Emergency shutdown methods
- Pipeline loss-of-integrity spills, causes, and remediation steps; near-miss data as available



QUESTIONS?

Three Phase Project

| PHASE | ACTIVITY | TIMING | FUNDING |
|-------|--|---------------------------|---|
| 1 | Inventory and Regulatory Update | Underway summer/fall 2017 | Funded by CIRCAC and KPB |
| 2 | Pipeline Integrity Assessment | Target: 2017-2018 | Proposal submitted to PHMSA (August 2017) |
| 3 | Development of Risk Reduction Measures by Expert Panel | Target: 2018 - 2019 | TBD |