New Polaris Gold Mine

Monitoring Results

Meeting date: October 6,2026

Presented by:
CanagoldResources Ltd.
Taku River Tlingit First Nation



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Agenda and Introductions

- **Why we did the trial**
- **The challenges faced**
- **What happened on the river**
- **Navigation and wake**
- **Water and sediment quality**
- **Noise: in the air and underwater**
- **What we learned and next steps**
- **Discussion**

Canagold Resources Ltd.

- Collen Middleton, VP Permitting & Compliance

TRTFN Technical Working Group

- Tara Williams
- Gideon Serbeh
- Carolyn Holmes

Trial monitoring team

- **ATELP:**AtlinTlingitEconomic Limited Partnership, retained SLR
- **SLR Consulting:** navigation, wake, water and sediment
- **CoreGeo:** ambient air noise monitoring
- **JASCO Applied Sciences:** underwater noise monitoring
- **Monitoring Boat Operator:** Trevor Williams

Why We Did Thisand the Challenges Faced



Landing craft Inlet Raider moored at Cranberry Island (SLR photolog)

Test river transport

Could alandingcraft safely travel T'aakú Héeni (Taku River) from Juneau to the confluence of theTaaltsux̲é̲i Héen(Tulsequah River)?

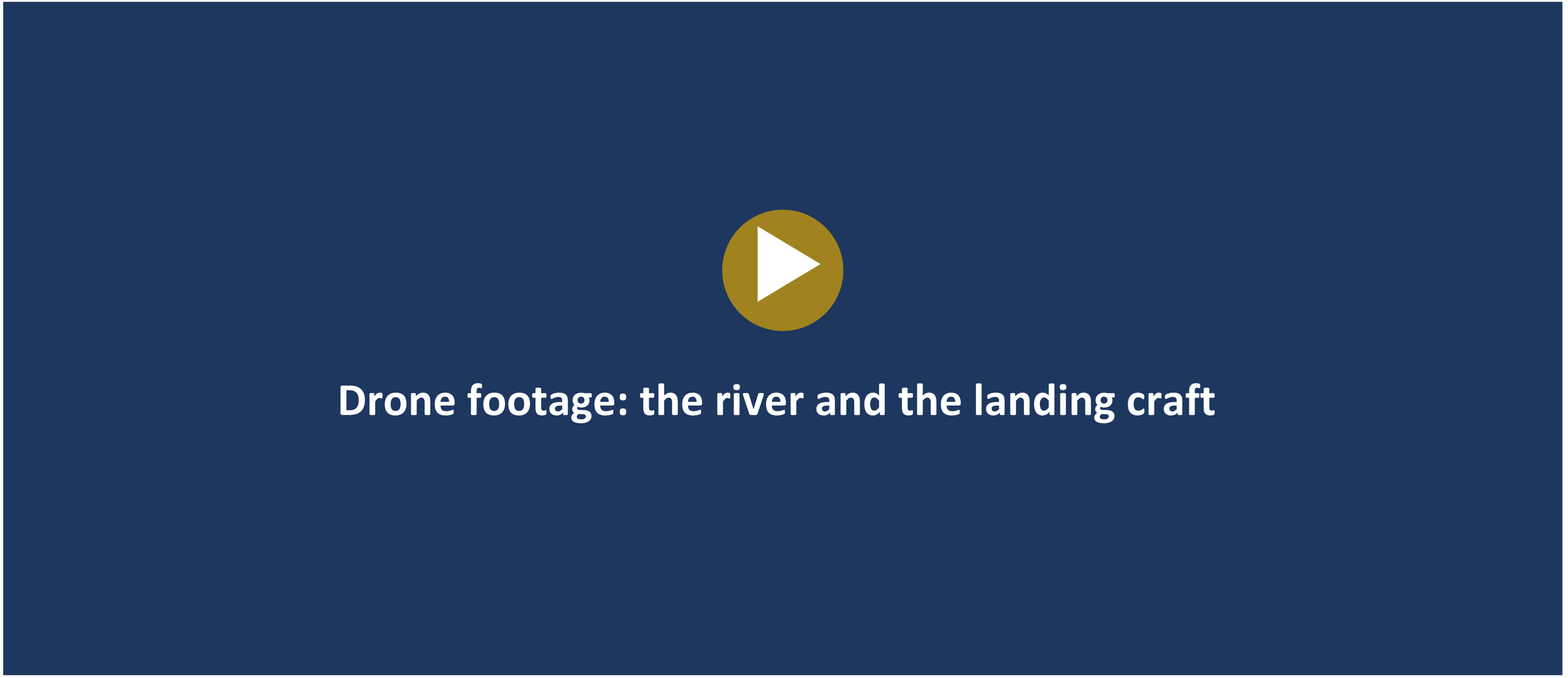
Watch the river

Record wake, waterquality and sound while the landing craft was moving.

Answer the noise question

TheTechnicalWorkingGroup asked for measured, not modelled, baseline noise data. This builds on monitoring from October 2025 and March 2026.

The Trial on the River



What Happened Each Day: June 11 to 15, 2026

Apilot boatwasdeployedon May 28thand29thtonavigatedownriverinadvance and identify the most suitable channels ahead of operations.

June 11

- Monitoring crews (SLR, ATELP, JASCO) arrive at New Polaris by helicop ter

June 12

- TRTFN representatives arrived and remained throughout
- Landing craft arrives at Cranberry Island from June au
- Several river transits between the confluence ofTaaltsuxéiHéenand downstream Cabin Row
- Watersamplesand
- in situ readings

June 13

- Severalriver transits between the confluenceof Taaltsuxéi Héen and downstream Cabin Row
- Wake monitoring
- Water and sediment samples at Cranberry Island

June 14

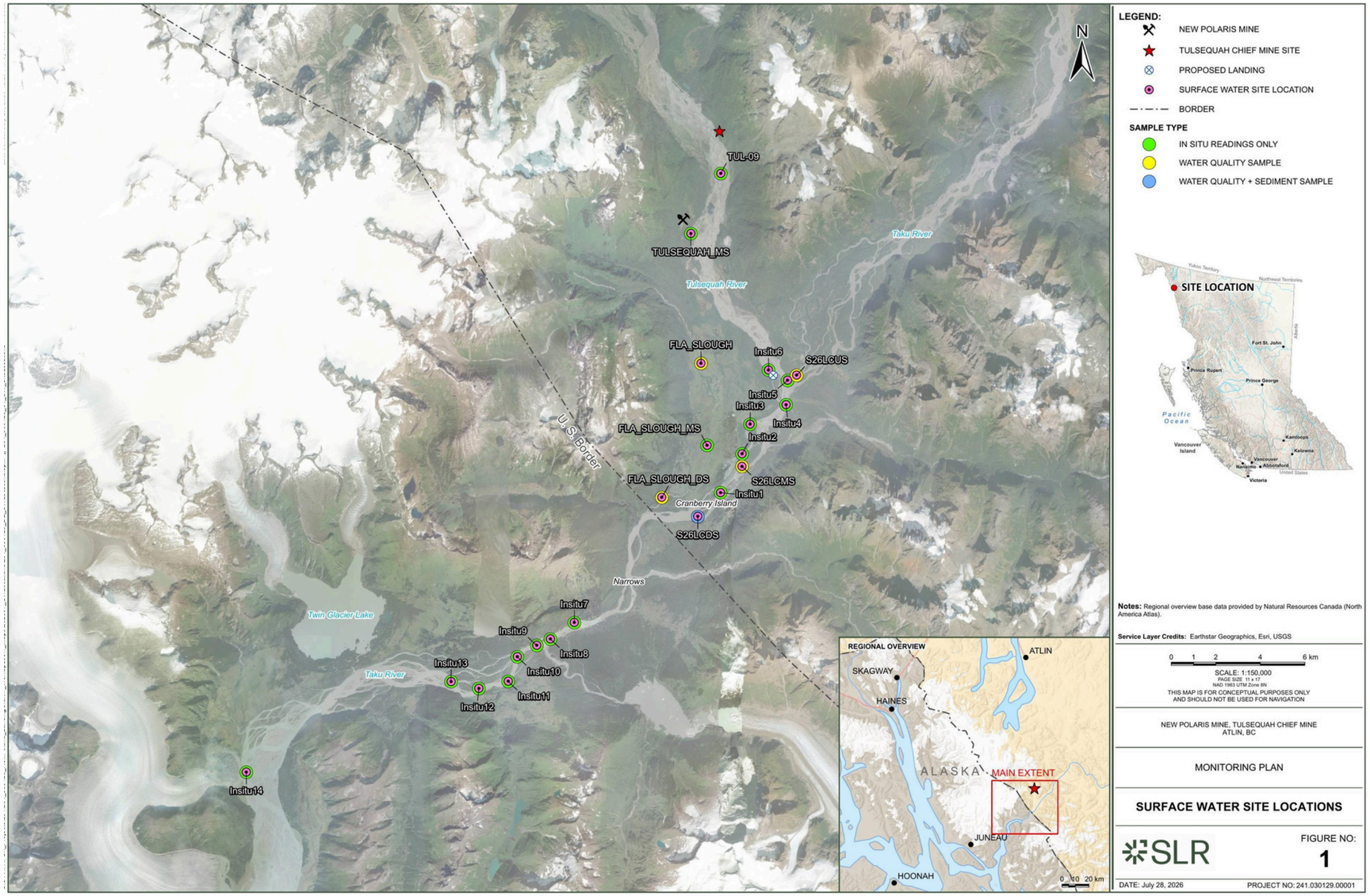
- Arrived atlanding site on theTaaltsuxéiHéen
- TRTFN representatives arrive at Cranberry Island
- Final transit to theTaaltsuxéi Héenconfluence, then return to Juneau
- Before and after water readings

June 15

- FlanniganSlough water sampling
- In situ readings on theTaaltsuxéi Héen

Noise monitors ran throughout: Mine Site/Camp June 11 to 17, Cranberry Island June 12 to 16.

Where We Monitored



Cranberry Island

Noisemonitor,wake,water and sediment samples; monitoring boat base

The Narrows

Wakemonitoring beside the fish wheels

Along the route

14setsof before and after water readings (Insitu1 to 14)

Mine Site/Camp

Noisemonitor; TaaltsuxéiHéenin situ readings

Flannigan Slough

Twowatersamplesinthe main channel

Navigation



*Landing craft grounded in a shallow section of the **T'aakú Héeni**, June 12*

- Original barge landing site changed due to feasibility of location
- Route: From Juneau, AK, through The Narrows, to theTaaltsux̲é̲i Héenconfluence
- Guide boat travelled ahead to find navigable channels
- T'aakúnear seasonal peak flow athigh water level; Taaltsux̲é̲i Héenlower than normal

4

groundings on early transits (June 12 and 13)

0

groundings on the final transit (June 14)

0

near misses, collisions or navigation safety concerns observed

Sharing the River

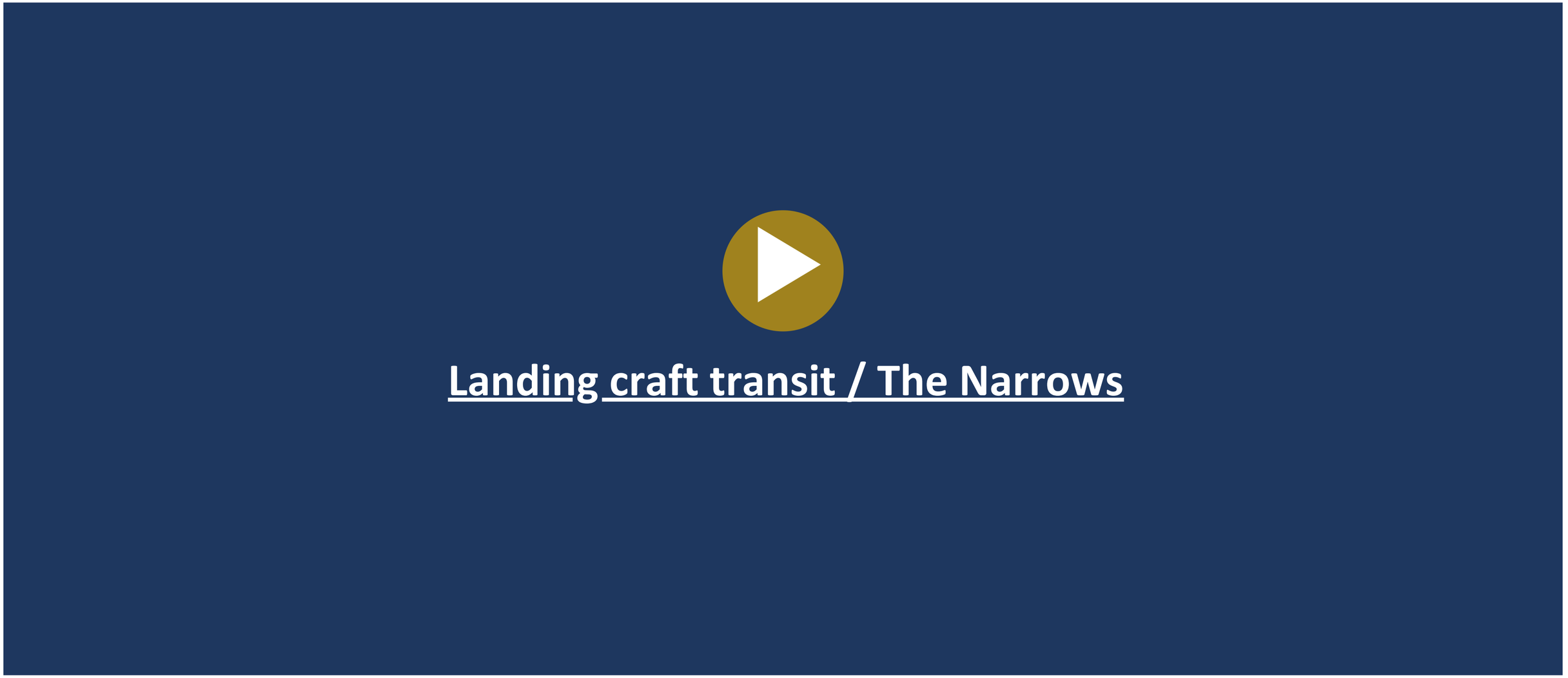


Guide boat, monitoring boat and landing craft on the lower T'aakúHéeni

Other river users

- TheT'aakúis wideenough for the landing craft to hold a steady speed and a predictable course.
- Smaller boats safely passed and moved around the landing craft when needed.
- Some residents gathered on the shore to watch, take photos
- Some residents expressed concerns regarding trial

Navigating the T'aakú



Landing craft transit / The Narrows

Wake Monitoring



Cranberry Island

Wide, braidedchannelwith gravel and sand banks



The Narrows

Bedrockcanyonbeside the fish wheels

8 cm

maximum wave height

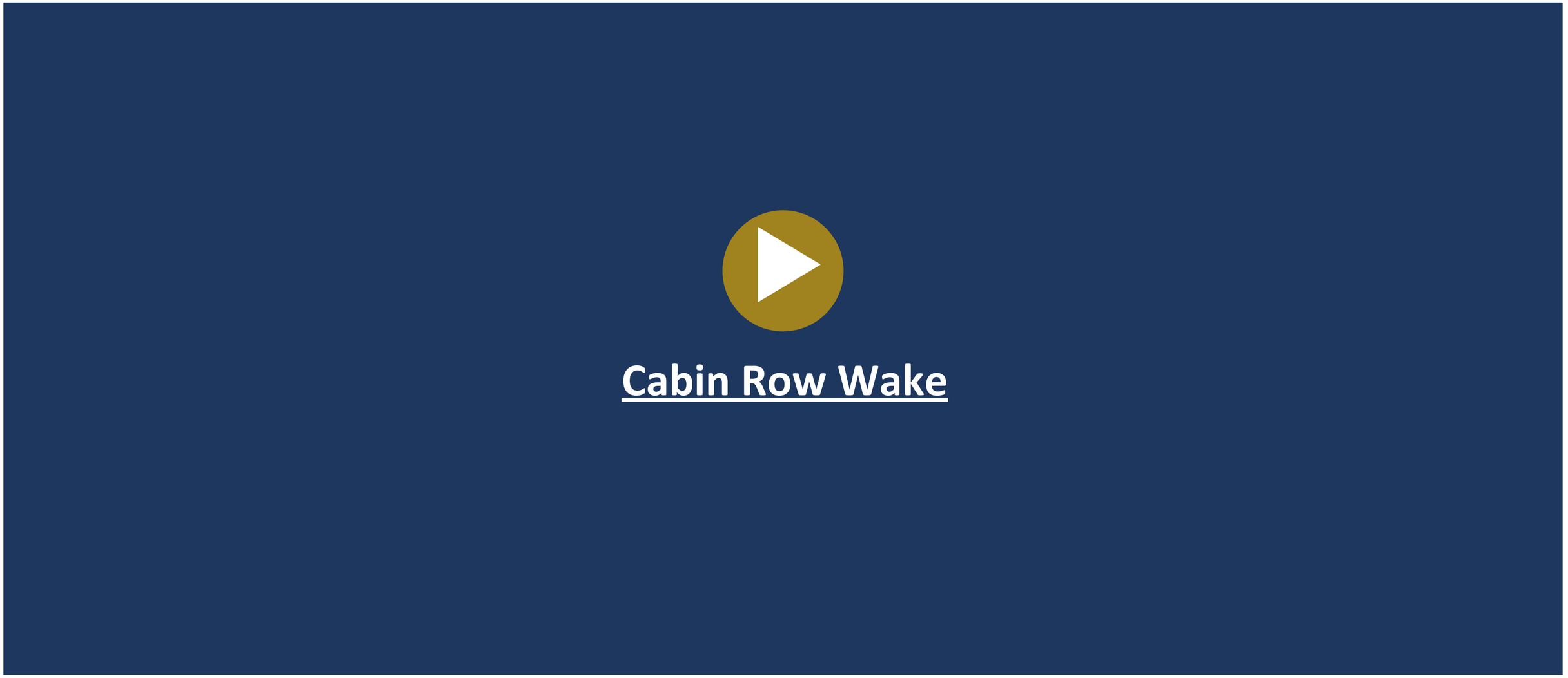
Back to normal water level in about 5 minutes

34 cm

Back to normal in about 7 minutes;

No comparison measurements were taken for other boats that use the river.

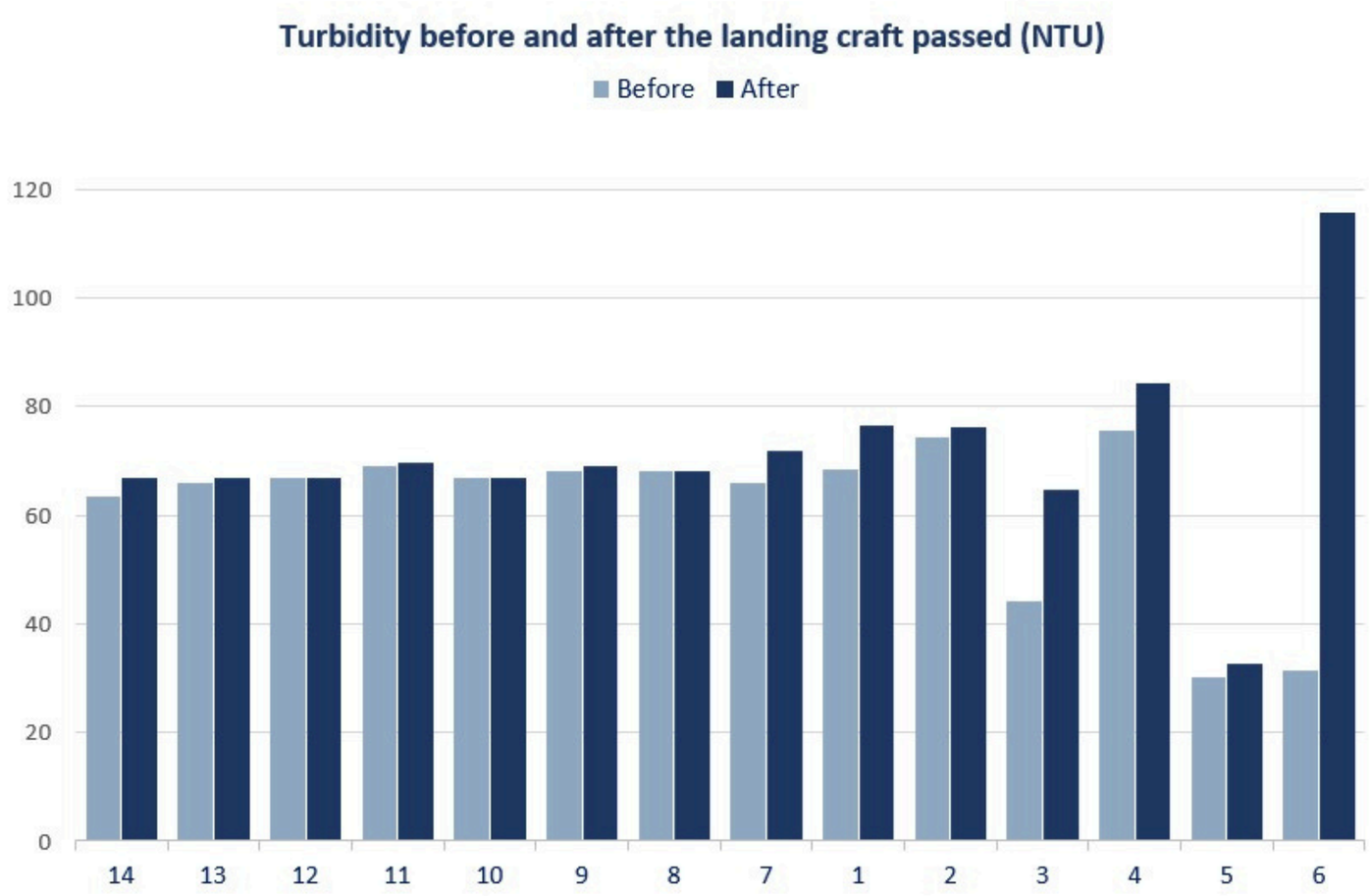
Wake at the Staff Gauge



Cabin Row Wake

QUESTIONS?

Before and After Water Readings



In situ sites ordered downstream (left) to upstream (right); site 6 is on the Taaltsuxéi

- 14 paired readings taken just before and just after the landing craft passed
- Measured temperature, dissolved oxygen, conductivity, pH and turbidity
- On the lower T'aakú, most before and after readings were very close
- Largest differences were near the Taaltsuxéiconfluence, where the two rivers mix and readings were not always at the same spot

- The landing craft had little measurable effect on turbidity; the river was already naturally cloudy at peak flow.

Surface Water Qualityand Sediment Sampling



Sampling location S26LCUS on theT'aakúRiver, June 12



Sediment samples collected at Cranberry Island, June 13

- Sites chosen by the technical working group before the trial
- Duplicate samples met the quality objective

Resultswere withinBCand CCMEguidelines.

Exceedances attributable to elevated background.

- Arsenic, chromium, copper, iron, manganese and nickel were above BC lower benchmarks and/or CCME interim gu id elines
- Levels were consistent across all three samples, even though grain size varied

Discussion



Water and sediment

- Are there places or parameters TRTFN would like sampled in future?
- How should baseline results like these be shared going forward?
- What questions do these results raise?

Airborne Noise Monitoring: How and Where

Where

- Cranberry Island, on the barge route: June 12 to 16 (93 hours)

How

- Sound monitor on tripods, recording every minute
- Short audio clips saved for loud events
- Methods follow ISO 1996-2 and BC guidance

Weather check

- Windy minutes reviewed and removed (24 at Cranberry Island, 3 at the mine site)
- Conditions were suitable for monitoring

Reading the numbers

dBA soundweighted the way people hear

dBC includes more low-frequency rumble

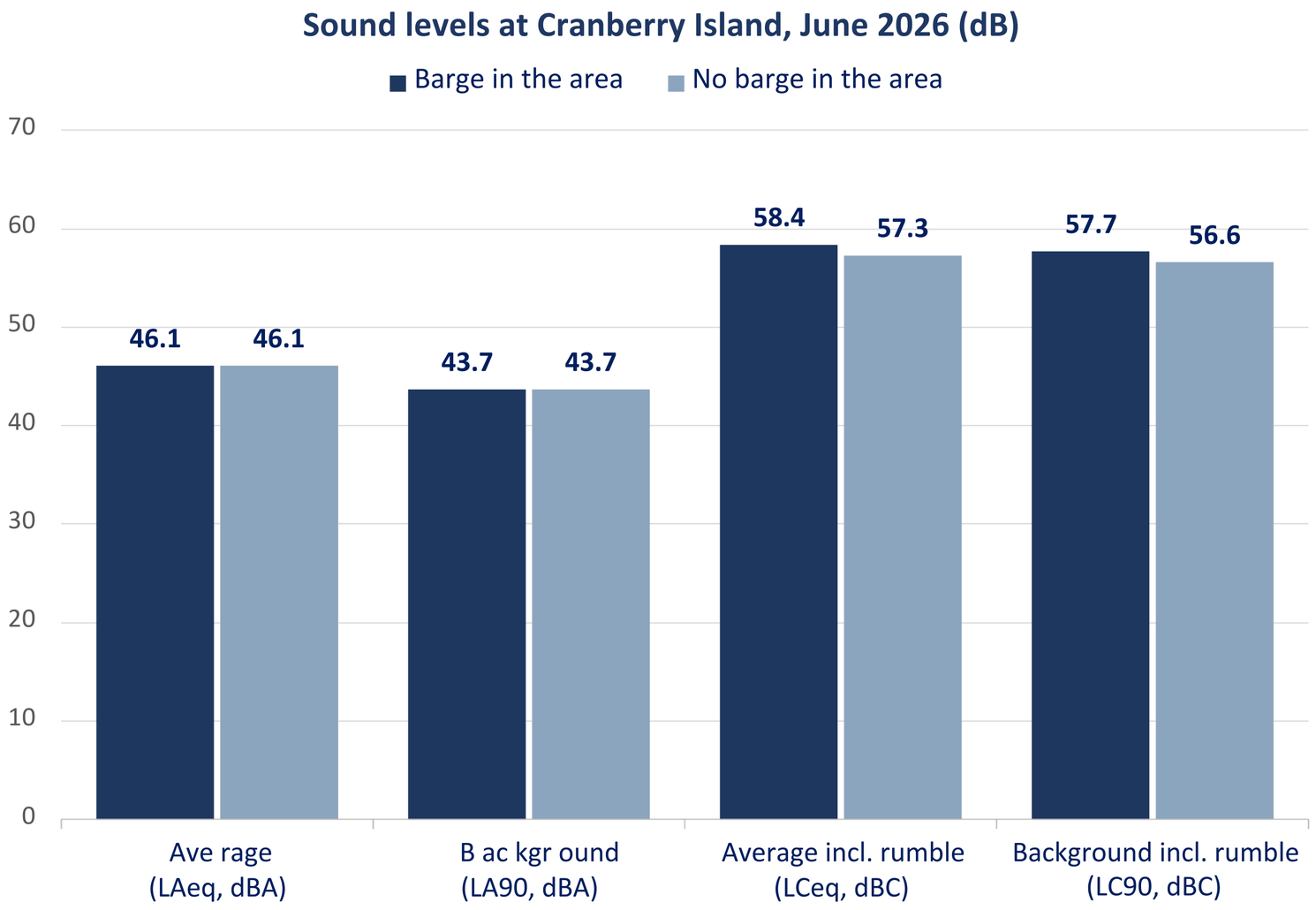
LAeq average sound level over time

LA90steadybackgroundlevel,exceeded90% of the time

LAFmax loudestsinglemoment

As a rule of thumb, a change of about 3 dB is the smallest most people notice outdoors.

Cranberry Island: With and Without the Barge



No change

ineveryday soundlevel: 46.1 dBA with and withoutthe barge

About 1 dB

more low-frequencyrumble while the barge was nearby

89.2 dBA

peak soundlevel recorded during

monitoringwasnotassociatedwith

barge activity

The river itself is asource of noise

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Underwater Noise: What JASCO Measured



Left: the Inlet Raider landing craft. Right: the SeaArk used to take the measurements (JASCO Figure 2)

18

landingcraft passes measured

16

riverlocations for natural sound

18-67 m

distance from the landing craft

- June 12 and 13 on the T'aakúand Taaltsuxéi Héen
- An underwater microphone (hydrophone) was lowered from a small boat drifting with its engine off, so it would not add its own noise
- The landing craft passed at different speedsand enginesettings, upstreamand downstream
- JASCO also recorded natural river sound with no boats nearby, and one pass of the pilot boat

The River's Own Underwater Sound



130-143 dB

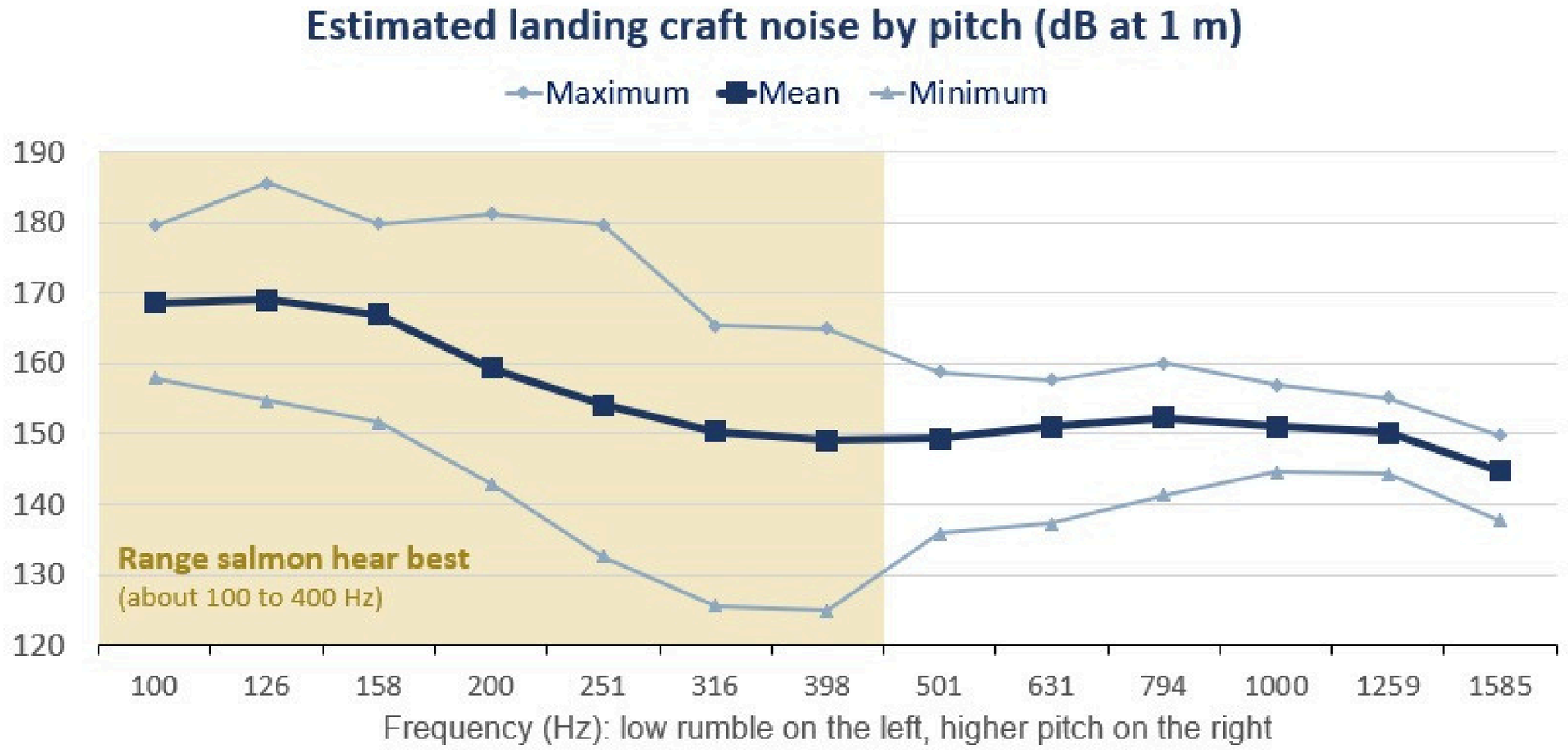
main T 'aak ú channel

115-127 dB

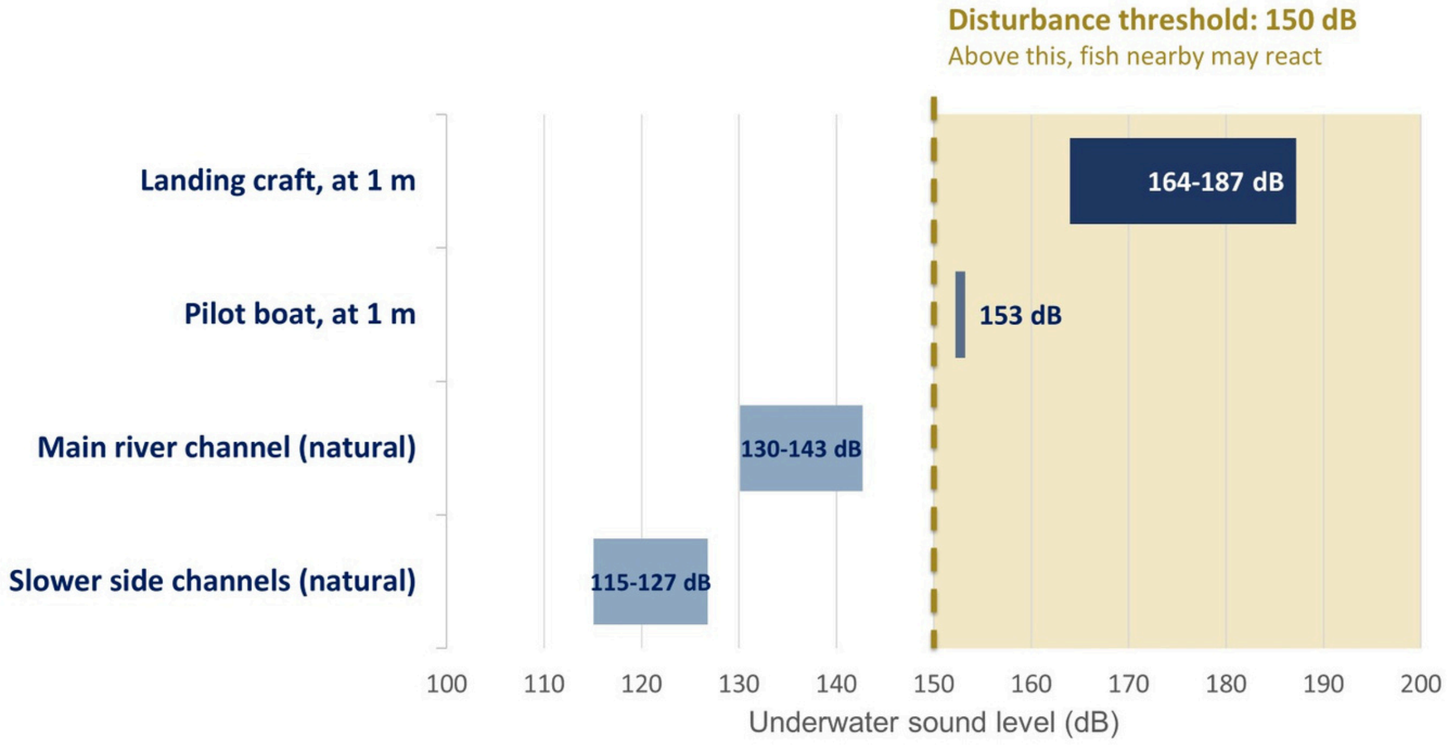
channels

- The T'aakúis naturally loud underwater. Gravel and sand moving along the riverbed create strong high-pitched sound. Side channels with slower water were much quieter.
- Very little other boat traffic was encountered, so these results reflect a river with almost no vessel noise.

Landing Craft Underwater Noise



Landing Craft Noise and Salmon Thresholds



Injury

No injury threshold applies to a passing vessel. Injury is not a realistic concern.

Disturbance

Only exceeded close to the hull. Likely below 150 dB within tens of metres, to be confirmed by JASCO modelling.

The river itself

Natural river sound is already within 7 to 20 dB of the threshold.

Boat levels are at 1 m from the hull and drop quickly with distance; the threshold applies to the sound a fish actually receives. Thresholds: NMFS behavioural guidance (all fish); Popper et al. 2014 (no injury threshold for salmon from continuous noise).

What We Learned and Next Steps

What we learned

- The landingcraft completed the route; groundings early on, none on the final transit, no safety inc id ents
- Wake was 8 cm in the open river and 34 cm in The Narrows, settling in 5 to 7 minutes
- The barge had no significant effect on ambient sound levels at Cranberry Island, aside from a small increase in low-frequency sound
- Underwaterambient noise levels in the river are naturally elevated. Landing craft noise was detectable above this baseline mainly within the 100 to 1,500 Hzfrequency range

Next steps

- Usetheunderwater noise baseline to assess effects on fish
- For any future barge runs, record vessel, load, speed, route, distance from shore and weather

Discussion - TRTFN



- During the trial smolts were not observed being washed up on banks –what time are the smolts usually in the river ?
- What wake do other boats make? Compare against the landing craft wake
- Does this data answer the noise questions TRTFN raised?
- What questions does TRTFN have about underwater noise and fish?
- Where else should noise be monitored, in the air or underwater?
- What would TRTFN want recorded during any future barge runs?

THANK YOU



Questions and discussion

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