

Briefing for PWSRCAC Board of Directors – January 2018

ACTION ITEM

Sponsor: Scientific Advisory Committee & Joe Banta

Project number and name or topic: 959 – Hydrocarbon Toxicity

1. Description of agenda item: This agenda item seeks Board approval of the Memorandum of Agreement 959.17.01 establishing an agreement between Prince William Sound Regional Citizens’ Advisory Council and the Northwest Fisheries Science Center (NOAA Fisheries), National Oceanic and Atmospheric Administration, U.S. Department of Commerce at an amount of \$80,000.

This will fund work this year to include studies in which Pacific herring embryos are exposed to Alaskan crude oil, then grown in clean water for up to a year for analysis of growth and bioenergetics. These data will then be related to a large dataset collected by the Oil Spill Recovery Institute on growth and the relationship of bioenergetics status (e.g., lipid content) to first year survival and recruitment for PWS juvenile herring. The proposed scientific research will significantly contribute to improving the understanding of population-level impacts of acute and latent toxic effects to spawning Pacific herring from environmentally relevant early life stage exposures to crude oil.

Overall, this is part of the first work in a cooperative joint research project between the NOAA Ecotoxicology Program and their counterparts in Norway, the Norwegian Institute of Marine Research, to study the effects of oil and chemical dispersants on high latitude Alaskan fish species including Arctic cod, Pollack, and herring. A big part of the project will be to take the recent PWSRCAC-funded herring and salmon work to the next level and get it to population and ecosystem scaling.

2. Why is this item important to PWSRCAC: This is important to PWSRCAC because the toxicity of dispersed oil holds the potential to impact the health of marine resources that member organizations and residents of our region depend upon for subsistence, food, and their livelihood. Several current PWSRCAC contracts deal with dispersants use and effects and hydrocarbon toxicity. This project is closely related to projects regarding dispersants.

3. Previous actions taken by the Board on this item:

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
Board	5/09	Approved MOA AKC-075 with NOAA Fisheries Auke Bay Lab for \$219,300, for analytical services and studies.
Board	7/12	Add \$67,000 to MOA AKC-075 for assessing hydrocarbon contamination in spot shrimp and sediments from Port Valdez
Board	1/14	Accept the report titled “Embryonic crude oil exposure causes cardiac hypertrophy and reduced aerobic performance in juvenile pink salmon and Pacific herring”.
Board	5/15	Accept the report “Polynuclear aromatic hydrocarbons in Port Valdez shrimp and sediment”.

4. Summary of policy, issues, support or opposition: None noted.

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5. **Committee Recommendation:** The committee discussed this project at past meetings, supported it, and included the work in its annual work plan and budget.
6. **Relationship to LRP and Budget:** Project 9590 - Hydrocarbon Toxicity, is in the approved FY2017 annual work plan.

**9590--Hydrocarbron Toxicity
As of Decembr 7, 2017**

FY-2018 Budget \$80,000.00

Actual and Commitments

Actual Year-to-Date

Commitments (Professional Services)

Actual + Commitments

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Amount Remaining

\$80,000.00

7. **Action Requested of the Board of Directors:** Approval of Memorandum of Agreement 959.17.01 establishing an agreement between Prince William Sound Regional Citizens' Advisory Council and the Northwest Fisheries Science Center (NOAA Fisheries), National Oceanic and Atmospheric Administration, U.S. Department of Commerce at an amount of \$80,000.
8. **Alternatives:** None recommended.
9. **Attachments:** None.