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SUPPLEMENTARY INFORMATION:

I. Information About the Project

The U.S. EPA conducted this assessment to determine the significance of Bristol Bay's ecological resources and evaluate the potential impacts of large-scale mining on these resources. The U.S. EPA will use the results of this assessment to inform the consideration of options consistent with its role under the Clean Water Act. The assessment is intended to provide a scientific and technical foundation for future decision making. The website that describes the project is www.epa.gov/bristolbay.

EPA released the draft assessment for the purposes of public comment and peer review on May 18, 2012. Consistent with guidelines for the peer review of highly influential scientific assessments, EPA asked a contractor (Versar, Inc.) to assemble a panel of experts to evaluate the draft report. Versar evaluated the 86 candidates nominated during a previous public comment period (February 24, 2012 to March 16, 2012) and sought other experts to complete this peer review panel. The twelve peer review panel members are as follows:

Mr. David Atkins, Watershed Environmental, LLC. - Expertise in mining and hydrology.

Mr. Steve Buckley, WHPacific/NANA Alaska - Expertise in mining and seismology.

Dr. Courtney Carothers - Expertise in indigenous Alaskan cultures.

Dr. Dennis Dauble, Washington State University - Expertise in fisheries biology and wildlife ecology.

Dr. Gordon Reeves, USDA Pacific NW Research Station - Expertise in fisheries biology and aquatic biology.

Dr. Charles Slaughter, University of Idaho - Expertise in hydrology.

Dr. John Stednick, Colorado State University - Expertise in hydrology and biogeochemistry.

Dr. Roy Stein, Ohio State University - Expertise in fisheries and aquatic biology.

Dr. William Stubblefield, Oregon State University - Expertise in aquatic biology and ecotoxicology.

Dr. Dirk van Zyl, University of British Columbia - Expertise in mining and biogeochemistry.

Dr. Phyllis Weber Scannel - Expertise in aquatic ecology and ecotoxicology.

Dr. Paul Whitney - Expertise in wildlife ecology and ecotoxicology.

The peer review panel will be provided with draft charge questions to guide their evaluation of the draft assessment. These draft charge questions are designed to focus reviewers on specific aspects of the report. EPA is seeking comments from the public on the draft charge questions and welcome input on additional charge questions consistent with the objectives of the assessment. The draft charge questions are as follows:

- 1) The assessment brought together information to characterize the ecological, geological, and cultural resources of the Nushagak and Kvichak watersheds. Was this

- characterization accurate? Was any significant literature missed that would be useful to complete this characterization?
- 2) A formal mine plan or application is not available for the porphyry copper deposits in the Bristol Bay watershed. EPA developed a hypothetical mine scenario for its risk assessment. Given the type and location of copper deposits in the watershed, was this hypothetical mine scenario realistic? Has EPA appropriately bounded the magnitude of potential mine activities with the minimum and maximum mine sizes used in the scenario? Is there significant literature not referenced that would be useful to refine the mine scenario?
 - 3) EPA assumed two potential modes for mining operations: A no-failure mode of operation and a mode outlining one or more types of failures. The no-failure operation mode assumes best practical engineering and mitigation practices are in place and in optimal operating condition. Is the no-failure mode of operation adequately described? Is the choice of engineering and mitigation practices reasonable and consistent with current practices?
 - 4) Are the potential risks to salmonid fish due to habitat loss and modification and water quantity/quality changes appropriately characterized and described for the no-failure mode of operation? Does the assessment appropriately describe the risks to salmonid fish due to operation of a transportation corridor under the no-failure mode of operation?
 - 5) Do the failures outlined in the assessment reasonably represent potential system failures that could occur at a mine of the type and size outlined in the mine scenario?

Is there a significant type of failure that is not described? Are the assumed risks of failures appropriate?

- 6) Does the assessment appropriately characterize risks to salmonid fish due to a potential failure of water and leachate collection and treatment from the mine site? If not, what suggestions do you have for improving this part of the assessment?
- 7) Does the assessment appropriately characterize risks to salmonid fish due to culvert failures along the transportation corridor? If not, what suggestions do you have for improving this part of the assessment?
- 8) Does the assessment appropriately characterize risks to salmonid fish due to pipeline failures? If not, what suggestions do you have for improving this part of the assessment?
- 9) Does the assessment appropriately characterize risks to salmonid fish due to a potential tailings dam failure? If not, what suggestions do you have for improving this part of the assessment?
- 10) Does the assessment appropriately characterize risks to wildlife and human cultures due to risks to fish? If not, what suggestions do you have for improving this part of the assessment?
- 11) Does the assessment appropriately describe the potential for cumulative risk from multiple mines?
- 12) Does the assessment identify the uncertainties and limitations associated with the mine scenario and the identified risks?