EXHIBIT A: ATTACHMENT 4
TASK TABLE

Task #	Task Title	Start Month	End Month	Personnel Involved	Description	Task Budget
1	General coordination and management	1	36	Kueltz, Dietmar	Prepare and facilitate meetings; Coordinate monthly progress; Integrate results; Progress reports will be generated.	$5,625.00
2	Sturgeon culture and larval exposure	1	24	Doroshov, Serge Van Eenenaam, Joel	Sturgeon breeding and histological analysis of early life stages exposed to SeMet and thermal stress; White and green sturgeon will be raised for this project for tasks 3,4, 6; Information on developmental defects during SeMet and temperature stress will be generated.	$115,780.00
3	Toxicological effects of SeMet with and without additional stresses	1	24	Hung, Silas Lee, Jang−Won	Quantifying the toxicokinetics, bioaccumulation, and chronic toxicity of selenium when present alone or in combination with MeHg in the diet; Information about critical SeMet and MeHg concentrations that are toxic to sturgeon and lead to 1) mortality, 2) growth depression will be generated; Information about rates of bioaccumulation of SeMet and MeHg in sturgeon tissues will be generated; Information about potential additive effects of SeMet and MeHg on sturgeon health will be generated; Tissues will be provided for analysis in task 6; acclimated animals will be provided for analysis in task 4.	$138,156.00

4	Physiological effects of SeMet with and without additional stresses	1	24	Cech, Joseph Kaufman, Robert Houck, Ann	Quantifying effects of chronic exposure to dietary SeMet stress alone and in combination with MeHg, salinity, and temperature stresses on swimming performance, resting metabolism, and hematology; Information about critical SeMet and MeHg concentrations that impair sturgeon physiology will be generated; Information about additive effects of temperature and salinity stresses on sturgeon that are exposed to SeMet and MeHg will be generated; Tissues will be provided for analysis in task 6.	$139,555.00
5	Collection of biopsies and data from wild sturgeon	1	24	Gingras, Marty Kammerer, Brittany	Wild sturgeon will be monitored through existing fish salvaging and monitoring programs by CDFG; Biopsies from gill and muscle tissues will be obtained and delivered to task 6; Data on locations and dates of sturgeon catches will be collected and correlated with environmental water quality data.	$0.00
6	Stress proteome identification and tissue microarray construction	1	36	Kueltz, Dietmar Fiol, Diego Kammerer, Brittany	Identification of proteome changes occurring in gill, liver, and kidney during SeMet stress, singly and in combination with MeHg, salinity, and temperature stresses; Construction of tissue microarrays (TMAs) to reveal effects of these stressors and provide a platform for future high−throughput bio−indicator assays; Protein sequences for antibody generation and development of ELISAs will be generated; More sensitive molecular bio−indicators that	$295,259.00

					can detect responses to lower levels of SeMet and MeHg than can be detected at the whole animal level (e.g. compared to growth or mortality) will be generated; Tissue microarrays (TMAs) that can be used as a reference for comparison with future field samples will be generated.	
7	Data management, analysis, and submission to public databases	1	36	Kueltz, Dietmar Doroshov, Serge Hung, Silas Cech, Joseph Gingras, Marty Kaufman, Robert Fiol, Diego Van Eenenaam, Joel Houck, Ann Lee, Jang−Won Kammerer, Brittany	Management and analysis of data allowing cross-comparison of results obtained in all tasks; Preparation and submission of proteomics data into a public database that is accessible via internet; Coordination of collaborative publications resulting from this project.	$5,625.00