Fellowship projects must address research topics outlined in the Puget Sound Partnership's Science Panel 2025-2029 Priority Science Work Actions:

Monitoring climate Impacts
1. Monitor the distribution of impacts of ocean and terrestrial climate change and variability on Puget Sound infrastructure, Tribal lifeways, ecosystems, native and invasive species, pathogens, human health, and quality of life (Climate M1/M5)

Climate impacts research
2. What are the impacts and management implications of projected future climate conditions and climate variability on floodplains, watersheds, and shorelines? (Climate R1)
3. How will climate change affect salmon survival at specific life stages, directly or through indirect effects to habitat and prey? (Climate R2)
4. How will future climate and ocean conditions and variability affect fisheries and the viability and harvestability of shellfish? (Climate R4)
5. What are the impacts of a changing climate on disease and toxic contaminants on salmon, forage fish, marine mammals, and marine vegetation, and people? (Pollution R15)
6. What is the abundance, distribution, and trend in forage fish population and what factors affect this? (Species R05/Species R06)

Climate change tools
7. Develop and apply tools to provide information and warnings about potential harm to resources, environmental, animal, and human health from extreme natural events. Assess responses to events and compile lessons learned. (Other TC1)

Pollution and toxicology
8. Evaluate, identify, prioritize, and monitor chemicals, pollutants, and pathogens with impacts to marine and freshwater organisms. This includes toxicity testing, biomonitoring, and other types of monitoring for exposures and disease outcomes, chemicals of emerging concerns, and areas requiring cleanup or isolation. (Pollution M1)
9. How can new approaches improve our understanding of the impacts of exposure to toxic chemicals including emerging contaminants, and pathogens on human health and wellbeing? (Human R10/Human R11)
10. What are sources, loading, transport, fate, and effects of toxic and potentially toxic substances in Puget Sound? (Pollution R02, Pollution R03, Pollution R10)

Land use change
11. Identify and assess drivers of land use trends and decisions (e.g. climate change, migration, urbanization, development) that are impacting the Puget Sound social-ecological system. How can impacts be mitigated through planning, incentives, or regulations? (Human R13/Climate R7)
12. Monitor habitat and landscape changes resulting from development and other stressors. Assess compliance of current regulations, enforcement, and incentives and support net ecological gain monitoring. (Habitat M1)

Socio-ecological ecosystem management
13. How can ecosystem management efforts be designed to better reflect understandings and desires of people's preferences, values, and behaviors? (Human R01)

14. What are the connections between human wellbeing, cultural practices, local foods, and ecosystem management? How does pollution, including emerging chemicals and biotoxins, and climate change affect these connections? (Human R05/Pollution R18)
15. What opportunities are there to improve the effectiveness and equity of pollution control and cleanup programs through applying social science approaches (including public finance, benefit-cost analysis, motivation of behaviors, including incentives, and program evaluation)? (Pollution R09)

Effectiveness

16. Assess the effectiveness of efforts to mitigate climate impacts. (Climate M2)
17. Assess effectiveness of best management practices and of state, regional, and local programs to prevent, treat, mitigate, or clean up air, water, soil, sediment (including isolation), and noise pollution. (Pollution M2)
18. Develop a social-sciences and epidemiologic informed monitoring and evaluation plan to help track effectiveness of programs on human health. (Habitat M2)