

IWRRI Research Advisory Committee

2026 Meeting Summary & Research Prioritization

Idaho Water Resources Research Institute, April 2026

1. Overview

This summary reflects the collective priorities and discussions emerging from the April 2026 IWRRI Research Advisory Committee meeting, including regional breakout sessions from North, Southwest, and Southeast Idaho. It is intended to support alignment across IWRRI staff, the executive board, and agency partners as we finalize the FY27 research agenda.

The RAC process focused on reviewing the FY26 project portfolio and identifying priorities for FY27. Updates were provided on 16 active projects spanning snow monitoring, water quality data integration, and hydro-meteorological networks (see Interim Research Report). Projects were evaluated for continuation, with recommendations to extend, expand, or refine scope based on progress and alignment with emerging needs.

Across all regions and discussions, several themes surfaced with consistency: the need to integrate water quantity and water quality rather than treating them in silos; a desire for decision-support tools that translate research into actionable information for managers and policy makers; interest in preserving IWRRI's capacity for nimble, real-time response to emerging state needs; and transitioning research priorities to watershed rather than regions. Continued refinement of IWRRI's approach to stakeholder engagement, particularly with remote and rural basins, watershed scale water management organizations, and state agencies, was identified as an opportunity.

The FY27 priorities build directly on the FY26 project portfolio, with most ongoing work endorsed for continuation or expansion. New research areas center on evaluating the impacts of growth, ecosystem integration, and science communication.

2. Summary of Priorities

2.1 Statewide Cross-Cutting Themes

AI / Data and Water: Data Centers are a fast growing and emerging topic across the state; questions arose relating to water quantity, water reuse and water quality.

Growth Impacts on Water Resources: the RAC elevated the need to examine the effects of population growth on both water supply and water quality, with emphasis on impacts from land use change. The RAC emphasized the need to address growth questions in every region, particularly in rural communities.

- Opportunities to develop approaches in specific communities that scale statewide are of particular interest.
- Septic System Density Case Studies: Develop parcel-scale septic density case studies in Kootenai County, Valley County; additional locations could include Bonner County, Sagle, Garden Valley.
- Domestic, Commercial, Municipal, and Industrial (DCMI) water use was elevated as a key focus area, particularly in relation to projected future demand and alignment with administratively available water supply. The Treasure Valley and Magic Valley were highlighted as key locations.

Watershed Focus: The RAC highlighted an opportunity to have a multiyear, rotating focus on specific watersheds to support research integration within each basin. While research would be concentrated in specific areas, findings would be translated for statewide relevance and ensure coverage across basins. Modifying the focus of research priorities from IWRB regions to watersheds would ensure research needs in remote and rural basins are identified and elevated.

Remote and Rural Watershed needs were identified as a priority, with multiple submissions highlighting gaps in research coverage.

- Clearwater Basin: Consolidate existing proposals into a single integrated water supply and ecosystem study, addressing a major data and knowledge gap in North-Central Idaho.
- Owyhee Basin: Assess existing data and tools to determine ability to translate high density research in Reynolds Creek across the region, evaluate relevance of existing tools (e.g. PROSPER) and identify remaining gaps to support future watershed-scale analysis, knowledge gap in SW Idaho.

Managed Aquifer Recharge (MAR): Strategic aquifer recharge remains a priority for the state. RAC members emphasized the importance of integrating water quantity and water quality considerations.

- Maintain IWRRRI engagement in MAR and injection well discussions, ensuring alignment with ongoing efforts and working with stakeholders to identify relevant research opportunities.
- Build on successful outcomes and lessons learned from ESPA MAR as a case study to inform future recharge strategies.

Ecosystems: Across regions, the RAC identified ecosystem-focused work as underrepresented in FY26 priorities and recommended elevating it in FY27. The RAC emphasized integrating ecosystem considerations with both water quantity and water quality projects, and engaging partners early in the process to strengthen the ecological components of research topics.

Economic Value of Water was highlighted as an opportunity for interdisciplinary collaboration to assess the multi-faceted economic value and statewide impacts of water supplies and use.

2.2 North Idaho Priorities

Regional Water balance: RAC members are interested in strengthening regional water balance assessments to support integrated understanding of basin scale hydrologic interconnectivity and water supply availability in the Spokane Valley Rathdrum Prairie Aquifer (SVRP).

- Continued support of the SVRP groundwater model and incorporation of projects associated with water supply, recharge rates, and growth into partnership with the currently updating GW model. The SVRP model is currently being refined with IWAC- Idaho Washington Aquifer Collaborative.
- Integrate Lake Pend Oreille study with the SVRP model to explore the impacts of lake levels on aquifer conditions. IWRRRI will need to facilitate coordination.
- Integrate climatic variability questions such as rain: snow transition impacts on water supply and timing for the SVRP.

Water Quality, Aquatic Ecosystems, and Restoration Impacts: North Idaho RAC members emphasized the need to better integrate ecosystem considerations into existing water quantity and water quality projects, while also identifying new opportunities for data synthesis and research on water-related ecosystem impacts.

- Ongoing efforts include integrating aquatic macroinvertebrate datasets (BURP) into the water quality data synthesis project and compiling historical biological data. Additional opportunity to analyze data before/after restoration, with Prichard Creek identified as a priority test case.
- Evaluate thermal impacts on anadromous and endangered fish species, with expanded thermal regime modeling in the Clearwater and Salmon River basins as priority test cases.

2.3 Southwest Idaho Priorities

Consumptive Use and Land Use Change: Southwest Idaho RAC members identified consumptive use, in the context of land use change (from agriculture to suburban) and population growth, as a central research need to improve understanding of how changing land use influences water demand and water availability across sectors.

Water Quality: Water quality concerns were elevated alongside quantity, particularly related to PFAS, emerging contaminants, septic system saturation, and nitrate contamination. Coordination with the Idaho

Department of Environmental Quality (DEQ) was identified as critical to align monitoring, data sharing, and management strategies.

Managed Aquifer Recharge: Exploring opportunities and collaborations as aligned with statewide priorities summarized above.

2.4 Southeast & Central Idaho Priorities

Eastern Snake Plain Aquifer (ESPA): Water Balance and Reach Gains: Continued focus on ESPA dynamics, refining water budgets, and improving estimates of consumptive use on the mid snake.

- Blackfoot–Minidoka reach gains remain a priority area for ongoing analysis and monitoring.
- Maintaining IWRRI capacity to assist with forecasting the methodology order was recommended to support management decisions.

Water Budgets: Development and refinement of basin-scale water budgets were identified as both a regional and statewide priority.

- Tributaries to the ESPA (Upper Snake basin) were highlighted as a critical focus area. Ongoing work on the Soil Water Balance model is a valuable first step.
- Opportunities exist to align and integrate localized studies (e.g., Little Lost and Big Lost basins) with broader water budget efforts, especially in areas facing groundwater pumping mitigation.

Ecosystems and Water Quality: Ecosystem and water quality considerations were identified as important to local communities, with a need to better integrate these components into water quantity-focused work and expand understanding of ecological responses to water management.

3. RAC Suggested IWRRI Approaches

- **Emergency Response Capacity:** The RAC emphasized the value for IWRRI to maintain the capacity to mobilize quickly in response to drought, wildfire, and other rapid-onset events, and preserving dedicated internal bandwidth for nimble response.
- **Coordination Across Projects:** IWRRI should continue to facilitate cross-project communication (including with state agencies) to avoid unintentional redundancy and strengthen alignment across ongoing efforts.
- **Integrated Water Research:** The RAC reinforced that water quantity and water quality must be addressed together, and IWRRI should continue to design projects that avoid siloed approaches.
- **Science Communication:** The RAC identified a cross-cutting need for a Science Communication Summit, with IWRRI supporting structured communication training to better equip scientists to translate research for decision-makers.
- **Decision-Support Focus:** The RAC emphasized that decision-support tools should be a primary outcome of characterization, modeling, and data synthesis projects, with IWRRI aligning project design accordingly.
- **Tribal Engagement:** IWRRI should maintain and deepen partnerships with Tribal natural resource teams, including the Nez Perce, Coeur d'Alene, and Shoshone-Bannock Tribes, through early and sustained engagement in research planning.
- **Leveraging Research Funding:** The RAC recommended that IWRRI require faculty-funded projects to demonstrate how outcomes will be leveraged to secure additional external funding.
- **Funding Structure:** The RAC recommended that IWRRI bring the potential for 2-3-year funding cycles to the Executive Board for consideration.
- **Communicating Impact:** IWRRI should identify and communicate win-win solutions and document success stories relative to historical baselines to demonstrate impact.
- **RAC Engagement:** RAC members expressed strong interest in supporting projects through site identification, partnership development, and alignment with decision-support needs.

- **Role of IWRRI in providing Neutral Science:** The RAC highlighted IWRRI's role as an independent, science-based partner, and encourage efforts to strategically maintain this status.