



26-WIPC-RFP-02

DEVELOPMENT OF A PLANNING TOOL
TO CONDUCT DROUGHT AND
WATER-AVAILABILITY SCENARIO
ANALYSIS FOR OIL AND GAS
PRODUCTION OPERATIONAL PLANNING

BUDGET: \$100,000

PUBLICATION DATE: MARCH 19, 2026

PROPOSAL SUBMISSION DEADLINE: MAY 8, 2026 BY 5:00 PM

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1. Background & Rationale

Alberta's upstream oil and gas (UOG) producers increasingly face seasonal variability in streamflows, snowpack, and reservoir storage that can rapidly tighten water availability, trigger provincial advisories, and alter access to licensed sources. Alberta's Drought Response Plan defines five escalating stages—from monitoring and active management to priority administration and emergency—describing how government actions and water-management tools intensify during shortage conditions. Building an Alberta-specific scenario capability that translates these public signals into operator-ready decisions is now essential for maintaining production continuity and compliance.

There is a gap in actionable regional drought forecasting and scenario planning for operating areas, emphasizing that operators require multiple scenarios—not a single forecast—to plan pad sequencing, source switching, and logistics. The proposed scope responds by expanding the focus to water-availability scenario analysis that is tailored to Alberta's basins and regulatory context.

To ensure basin-specific realism in scenarios, triggers, and plans, the project concentrates on Alberta only and covers the province's seven Major River Basins as defined by the Government of Alberta. However, the focus should be on the key basins for oil and gas operators, specifically working in the Montney and Duvernay.

The scenario assessments will integrate near-real-time hydrologic information and water-shortage advisories from the Alberta River Basins site with seasonal climate outlooks and drought severity indicators. Coupled with the Alberta Water Tool (AUPRF-funded), which offers allocation and reported-use context at watershed scale, the scenarios will ground operator decisions in authoritative provincial data streams while aligning to AER's Manual 025 and Water Conservation Policy expectations around using alternatives to high-quality non-saline water when feasible.

The proposal must also consider the new changes to water management in Alberta resulting from Bill 7 implementation.

2. Benefits to Producers

The project delivers a planning-grade scenario tool that presents 7-, 30-, and 90-day water-availability trajectories for each Alberta basin. By fusing hydrologic conditions and advisories from Alberta River Basins with seasonal probabilities and drought-severity mapping, operators can anticipate when flows may approach Water Conservation Objectives or instream thresholds that could constrain withdrawals. This foresight enables timely pad re-sequencing, storage staging, or intake management before constraints materialize.

Operational triggers encoded in the tool are explicitly mapped to the five stages of Alberta’s Drought Response Plan. Under Stage 2 (“Active Management”), for example, producers can prepare to adapt to potential suspensions of certain temporary diversions and to adjust operations in line with heightened advisories. Under Stage 3, triggers help operators prepare their documentation and communication for priority administration scenarios. This improves licence-compliance readiness, reduces last-minute changes, and supports transparent stakeholder communication.

The scenarios are coupled to AER Manual 025 expectations so that producers can pre-plan source switching from high-quality non-saline (HQNS) to alternative non-saline and other alternative waters (e.g., produced/saline), with clear feasibility documentation and blending envelopes. Proactive switching reduces reliance on HQNS during constrained periods, lowers emergency trucking/treatment costs, and aligns with regulator guidance. Where industry has conveyance options (e.g., temporary surface pipelines/layflat), the tool helps time their activation to maximize risk reduction.

Because the tool leverages public provincial signals and recognized datasets, producers can demonstrate data-driven stewardship aligned with the Government of Alberta guidance, which strengthens stakeholder and industry confidence and helps sustain production continuity at lower cost and risk during dry spells.

3. Research Objectives

- Build a basin-tailored scenario engine that integrates specific Alberta River Basins hydrology and advisories, publicly available data sets, seasonal outlooks, and any Canadian drought monitor services to generate 7/30/90-day water-availability trajectories for Alberta oil and gas production operating areas.
- Incorporation of new requirements and guidelines reflecting the pending Alberta Water Act amendments
- Define operator triggers and actions mapped to the five stages of the Alberta Drought Response Plan so that production scheduling, water acquisition, and storage decisions are consistent with provincial response signals.
- Embed AER Manual 025 source-hierarchy logic (HQNS → alternative non-saline → other alternatives) and feasibility documentation into operator Playbooks, including blending/compatibility guidance and typical evidence for license interactions.
- Deliver a dashboard and 3 planning scenarios for two priority basins (to be determined) as a foundation for province-wide scale-up.

4. In Scope

The project will focus exclusively on Alberta. It will:

- Produce water-availability scenarios at 7/30/90-day horizons for each of the seven Major River Basins and selected sub-basins where operational fidelity demands finer resolution.
- Operator planning guidance and decision support, and the ability of the tool to be updated for evolving databases and regulatory systems
- Data inputs will include Alberta River Basins flows, levels, and water-shortage advisories; seasonal probabilities from established sources; drought-severity mapping; and allocation/use context from the Alberta Water Tool.
- Outputs will include an operator dashboard, a trigger/action matrix aligned to the Drought Response Plan stages, and basin Plans that incorporate Manual 025 source-switching expectations.
- How to integrate the Alberta Water Tool within the guidance and decision support tools.

5. Out of Scope

The project will not:

- undertake cross-provincial analysis,
- propose regulatory reform or make regulatory recommendations, and
- will not deliver site-specific engineering design of intakes, treatment systems, or storage infrastructure.

6. Specific Deliverables

- Alberta Basin Baseline: A structured summary for each of the seven basins detailing hydrologic characteristics, advisory history, key water-management considerations, and linkages to Drought Response Plan stages and tools. This creates a shared factual context for scenario building and for communicating with stakeholders.
- Scenario Engine (working prototype): Data adapters to data from numerous sources on Alberta River Basins and contextual layers from the Alberta Water Tool, producing trajectories of water availability at 7/30/90-day windows. The tool will support the determination of cadences appropriate to operational planning.
- Operator Trigger & Action Matrix: Basin-specific thresholds and decision pathways that connect observable provincial signals and seasonal risk bands to concrete actions— pad re-sequencing, storage draws, HQNS→alternatives switching per Manual 025, and external communications aligned with the Drought Response Plan.

- Alberta Water-Availability Dashboard: A web-based visualization for two pilot basins that displays current conditions, near-term scenarios, and operator triggers with explanatory annotations and links to relevant Playbook steps.
- Operational Plans: Practical, step-by-step references that consolidate trigger logic, source-switching sequences under Manual 025, blending/compatibility considerations, storage/conveyance tactics, and evidence checklists for licensing interactions, all aligned to Alberta's drought stages.

7. Success Criteria

- Development of a planning tool that can be used by operators to manage drought planning and operational response.
- Demonstration of case studies of how a planning tool can be used to optimize oil and gas producer production planning and sequencing under drought conditions.



AUPRF 2026 Request for Proposals

INSTRUCTIONS FOR PROPOSAL SUBMISSIONS

MARCH 2026

www.ptac.org
Suite 1550,
520 Fifth Avenue SW
Calgary, AB. T2P 3R7

Instructions for Proposal Submissions

AUPRF 2026 RFPs

1 Purpose & Scope

These instructions apply to all competitive solicitations funded by the Alberta Upstream Petroleum Research Fund (AUPRF) and administered by PTAC Petroleum Technology Alliance Canada. They define how Proponents must prepare and submit proposals, how proposals are evaluated, the timelines for decisions and notifications, and key commercial and legal terms applicable to AUPRF-funded projects.

2 Submission – Content Requirements

2.1 Proponent & Company Information

- Legal name and address
- Primary contact name, title, email, and phone
- Brief company overview and relevant services

2.2 Technical Proposal

- Understanding of the problem statement and scope
- Proposed methodology and approach
- Work plan, milestones, and schedule
- Team composition; max 2-page bios/CVs with roles and expertise

2.3 Financial Proposal

- Itemized cost breakdown (e.g., labour categories and rates, materials, travel, subcontractors)
- Proposed milestone-based payment schedule (payments tied to deliverables)
- Leveraged funding

2.4 Formatting and Page Limits

Unless otherwise specified in a particular RFP, no strict page limits apply; include the content necessary to enable a thorough assessment.

3 Submission — Method & Logistics

Submit by email to info@ptac.org with subject line: *AUPRF – RFP ID – Proponent Company Name*.

Proposals submitted by other means will not be accepted.

- **Deadline:** Proposals must be received on or before the RFP deadline indicated in each RFP document; late submissions will not be considered.

- File format: A single combined PDF is preferred, plus any required spreadsheets or forms specified in the RFP.
- Validity: Proposals must remain irrevocable and open for acceptance for 90 days from the submission deadline.
- Questions & FAQs: Refer to the AUPRF call for proposals landing page and any RFP-specific instructions for updates and clarifications.

4 Eligibility, Legal & Commercial Terms

- PTAC reserves the right to accept or reject any Proposal, in whole or in part, and to cancel or amend an RFP without liability.
- Proponents are responsible for all costs associated with preparing and submitting their Proposals.
- Confidentiality applies to information provided by PTAC; Proponents may be required to sign a non-disclosure agreement. Proposals will be kept confidential and will be accessed only by evaluators.
- Intellectual property (IP) arising from AUPRF projects may be owned by AUPRF funders, or AUPRF funders receive a royalty-free operational use right. No other IP ownership or sharing options (if IP is being generated) are acceptable.
- Minimum insurance: Commercial General Liability (CGL) of \$5,000,000 and Professional Liability of \$2,000,000.
- Disclosure of intent to subcontract and any actual or potential conflicts of interest is required.
- Governing law: Province of Alberta, Canada.

5 Evaluation Criteria & Process

5.1 Scored Criteria and Weights

<i>Criterion</i>	<i>Weight</i>
Technical Approach	30%
Relevant Experience	30%
Cost	25%
Leveraged Funds from Other funders	5%
Team Qualifications	10%

5.2 Screening & Completeness

Proposals are first screened for completeness and compliance (deadline, required sections, and required disclosures). Incomplete or non-compliant Proposals may be removed from further consideration at PTAC’s discretion.

5.3 Committee Review, Scoring & Deliberation

The relevant AUPRF technical committee reviews Eligible Proposals. Committee members score Proposals using the standardized scoring sheet before a deliberation meeting, where compiled results are discussed, and recommendations are confirmed.

PTAC may request clarifications, additional information, or presentations from Proponents to support evaluation before final ranking.

6 AUPRF Review & Communication Timelines¹

The following service levels apply to all **AUPRF RFPs for Well Decommissioning Research Projects (WDRC) and Water Innovation Planning Committee (WIPC)** unless a specific RFP states a different schedule:

<i>Step</i>	<i>Date</i>
1. RFP Release - Well Decommissioning Research (WDRC) - Water Innovation Planning (WIPC)	March 19, 2026
2. Submission of Questions	April 10, 2026
3. Answers to Questions Posted on PTAC Website	April 24, 2026
4. Proposal submission deadline	May 8, 2026 5 pm Mountain Time
5. Acknowledgement of receipt	May 22, 2026
6. Decision ratification	June 19, 2026 or sooner
7. Award notifications	June 26 – July 7, 2026
8. Target project start	Summer 2026 (unless otherwise specified)

7 Communication

- All communications by the proponent to PTAC should be directed to info@ptac.org and AUPRF2026 RFPs should be included in the subject line.
- PTAC will notify the Proposal's primary contact by email of the outcome (award or non-award).
- Unsuccessful Proponents may request high-level feedback on strengths and areas for improvement.
- Public Communications: PTAC/AUPRF may publish award highlights after contract execution.

¹ AUPRF 2026 RFPs for Ecological Research Planning Committee (ERPC), Air Research Planning Committee (ARPC), and Reclamation Remediation Research Committee (RRRC) will follow a different timeline and deadline.

8 Contracting, Payments & Reporting

- A standard AUPRF Funding Agreement will be issued to successful Proponents for review and execution.
- Payments are quarterly milestone-based and tied to accepted deliverables, as specified in the Funding Agreement.
- Executed agreements are retained in the AUPRF contracts repository managed by PTAC.

9 Compliance & Reserved Rights

PTAC may amend or cancel an AUPRF RFP at any time; any changes will be communicated to all prospective Proponents. Proponents must comply with all instructions, including confidentiality, insurance, subcontracting disclosures, and conflict-of-interest requirements.

10 Proponent Checklist

- Company information (legal name, address, contacts, overview)
- Technical proposal (approach, work plan, schedule, team bios/CVs)
- Financials (itemized costs; milestone-based payment plan, leveraged funding)
- Disclosures (subcontracting intent; conflicts of interest)
- Insurance confirmation (CGL \$5M; Professional Liability \$2M)
- Submission format (single PDF + required forms); deadline; 90-day validity

11 Legal Conditions

11.1 Non-Binding Solicitation; No Obligation to Award

This Request for Proposals (RFP) is not an offer to contract. No contractual, quasi-contractual, fiduciary, or other legal obligations of any kind are created by this RFP or by any submission, communication, or conduct of PTAC unless and until a written Funding Agreement is executed by duly authorized representatives of PTAC and the successful Proponent. PTAC may cancel, amend, or suspend this RFP at any time without liability.

11.2 PTAC's Reserved Rights

Without limiting any other rights, PTAC may, in its sole discretion and without liability: (a) accept or reject any or all Proposals; (b) accept a Proposal in whole or in part; (c) waive non-material irregularities; (d) seek clarifications; (e) negotiate changes to scope, schedule, and pricing with one or more Proponents; and (f) cancel this RFP at any time. The lowest-priced Proposal will not necessarily be selected.

11.3 No Claim for Compensation; Bid Costs

Each Proponent is solely responsible for all costs associated with preparing and submitting its Proposal, as well as any related activities. PTAC shall not be liable for any such costs or damages, whether or not the Proponent is selected for award.

11.4 Limitation of Liability

To the maximum extent permitted by law, PTAC shall not be liable to any Proponent for indirect, incidental, consequential, special, punitive, or exemplary damages, loss of profit, loss of opportunity, or loss of reputation arising out of or related to this RFP, the evaluation process, or any decision to award or not award funding, even if advised of the possibility of such damages. Any direct liability of PTAC to a Proponent is strictly limited to the reasonable, proven out-of-pocket costs of preparing the Proposal, which the parties agree is disclaimed by Section 4.

11.5 Verification and Clarifications

PTAC may request clarifications, additional information, or presentations from any Proponent and may verify any information contained in a Proposal through interviews, reference checks, third-party sources, or site visits. Failure to respond promptly may result in disqualification.

11.6 Grounds for Disqualification

PTAC may, at any time, disqualify a Proposal or rescind a selection if: (a) the Proposal is late, incomplete, or non-compliant; (b) the Proponent fails to disclose or address an actual or potential conflict of interest; (c) the Proposal contains misrepresentations or misleading information; (d) the Proponent engages in collusion, unfair competition, improper influence, lobbying outside the authorized contact, or attempts to obtain confidential information not publicly available; or (e) adverse information materially affecting the Proponent's qualifications comes to PTAC's attention.

11.7 Proponent Representations & Warranties

By submitting a Proposal, the Proponent represents and warrants that: (a) the Proposal is accurate, complete, and not misleading; (b) all proposed work product will not infringe intellectual property or other rights of third parties; (c) the Proponent and proposed subcontractors are duly qualified and in good standing; and (d) it will maintain the insurance required by the RFP and Funding Agreement.

11.8 Confidentiality; Use and Disclosure

Information provided by PTAC in connection with this RFP is confidential and may be used solely for Proposal preparation and evaluation. Proponents must not disclose such information to any third party except their team members, advisors, or subcontractors who have a need to know and are bound by confidentiality obligations no less protective. PTAC may disclose Proposals to its funders, technical committees, advisors, and partners for evaluation and administration and may make disclosures as required by law or court/government order.

11.9 Intellectual Property & License to Use

Subject to the Funding Agreement, IP arising from the Project may be owned by AUPRF funders, or funders will receive a perpetual, royalty-free right to use the IP in their operations without additional compensation. Proponents must ensure they have all the rights necessary to grant such

ownership or licenses. If IP is generated by the proposal/project, no other IP ownership or sharing options are acceptable. If IP is not generated by this project, this provision is unnecessary.

11.10 Subcontracting

The Proponent must disclose its intent to subcontract any portion of the work. PTAC reserves the right to approve or reject proposed subcontractors. The Proponent remains fully responsible for all subcontracted work.

11.11 Proposal Validity

Proposals must remain irrevocable and open for acceptance for 90 days after the submission deadline.

11.12 Acceptance Not a Waiver

PTAC's acceptance of a Proposal, or its failure to identify deficiencies, does not waive any requirement of the RFP or Funding Agreement and does not relieve the Proponent from responsibility for compliance or performance.

11.13 Order of Precedence; Entire Agreement

In case of conflict, the following order of precedence applies: (1) the executed Funding Agreement (including schedules), (2) the specific RFP (including addenda), (3) these Proponent Instructions, and (4) the Proposal. The executed Funding Agreement constitutes the entire agreement for project performance.

11.14 Governing Law and Forum

This RFP and any related dispute are governed by the laws of the Province of Alberta and the federal laws of Canada applicable therein, without regard to conflict-of-laws rules. The parties attorn to the exclusive jurisdiction of the courts of Alberta, sitting in Calgary.

11.15 Insurance & Indemnities

At a minimum, the Proponent shall maintain CGL of \$5,000,000 and Professional Liability of \$2,000,000, as well as any other insurance required by the Funding Agreement. Proponents will indemnify and hold harmless PTAC, its officers, directors, employees, and agents from third-party claims arising out of the Proponent's acts or omissions in connection with the Proposal or the Project, subject to the Funding Agreement.

11.16 Addenda and Questions

Only written addenda issued by PTAC form part of the RFP. Proponents are responsible for monitoring the RFP communication channel (the PTAC website) and ensuring their Proposal reflects all addenda.