



Application for a Waterflood Project

1. An application under section 17.1 of *The Oil and Gas Conservation Act* for approval of a waterflood project or expansion of an existing project shall include:
 - (a) The results of reservoir studies showing:
 - (i) the original oil and gas in place in the total project area and the expansion area alone, if an expansion is being applied for;
 - (ii) the original oil and gas in place for each drainage unit in the new project or project expansion area (including injector locations) if the area is not or will not be unitized;
 - (iii) the recovery predicted under the existing producing mechanism;
 - (iv) the recovery predicted for the proposed project or project expansion;
 - (v) details of the recovery prediction under the proposed plan including sweep efficiencies, displacement efficiencies and economic limits;
 - (vi) future production rates, gas-oil ratios and water-oil ratios predicted for existing and proposed producing mechanisms;
 - (vii) details of reservoir fluid properties, including bubble-point pressure;
 - (viii) details of the geology in the plan area accompanied by geological cross sections, structure contour and isopach maps;
 - (ix) details of the water source(s) including fluid and formation characteristics, results of fluid compatibility tests, and a list of the water source wells.
 - (b)
 - (i) a brief development and production history of the reservoir including initial and current pressure data;
 - (ii) a list of the injection wells with proposed injection rates and expected wellhead pressures.
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- (c) Maps showing:
 - (i) the plan area with wells and patterns identified;
 - (ii) the lessors (mineral owners) and lessees within and adjoining the plan area.
 - (d) A sketch showing by cross section the subsurface equipment and completion details of the injection and water source wells.
 - (e) A sketch showing all surface equipment including wellhead, piping, pumps, fluid storage, metering, and chemical treatment of fluid before injection.
 - (f) Proposed internal and external corrosion protection for the entire surface and subsurface systems.
 - (g) Copies of covering letters for related submissions to Sask Water and Saskatchewan Environment and Resource Management.
2. The submission shall be in written and illustrated form, signed by an officer of the company making the application, and appropriately bound.
 3. The applicant shall, upon request, provide additional copies of the submission to any owners or operators directly affected.
 4. Submit three (3) copies of each application to:

Engineering Services Branch
Saskatchewan Industry and Resources
200 - 2101 Scarth Street
Regina, Saskatchewan S4P 2H9
 5. For further information contact Ken Kowal at (306) 787-8584.