



# Battle Lake Watershed Development Planning Pilot Project

Report of the Multistakeholder  
Pilot Project Team



# BATTLE LAKE WATERSHED DEVELOPMENT PLANNING PILOT PROJECT

## Background

Battle Lake is located in central Alberta about 60 kilometres (km) southwest of Edmonton, Alberta. The lake is fed by springs and surface runoff from a small and relatively undisturbed watershed. The Battle Lake watershed has been protected by a County of Wetaskiwin bylaw, and the provincial government has established the Mount Butte and South Battle Lake Natural Areas to protect approximately one-third of the shoreline and riparian zones, as well as some of the upland habitat.

Stakeholders in the Battle Lake watershed area are concerned about the effects of oil and gas development on the lake and have made their concerns known in regulatory processes. In Alberta Energy and Utilities Board (EUB/Board) *Decision 2005-129: Review of Well Licence No. 0313083 and Application for Associated Battery and Pipeline Pembina Field*, the Board panel identified that “additional measures must be taken to ensure that future development continues to be conducted in an orderly, effective, and environmentally sensitive manner.” Consequently

in January 2006, the EUB worked with members of the Battle Lake Watershed Synergy Group to first define a terms of reference and then proceed with an area oil and gas development planning pilot project. Its scope addressed oil and gas development in the Battle Lake watershed, which is about two townships in area. The objectives of the project are to

- protect the watershed from adverse and cumulative effects of oil and gas development, and
- mitigate the potential adverse effects of oil and gas development on area residents, other land users and wildlife habitats.

## Project Team Approach

The project team

- obtained and mapped information on topography, surface hydrology, natural areas<sup>1</sup> and land use,

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<sup>1</sup> For the purposes of this report, natural areas include designated county and Alberta lands, as well as sites on public and private lands that contain forests or other native vegetation cover that has not been disturbed in recent times.

- met with stakeholders to identify issues and area protection priorities, and
- developed recommendations to address protection priorities.

The team synthesized the many pages of stakeholder input from a June 22, 2006, community workshop into the following problem/opportunity statements:

- 1) Upstream oil and gas development and operations should occur in a way that protects remaining natural areas, wildlife habitat, riparian zones of tributary streams, wetlands and Battle Lake escarpment areas from disturbance and adverse affects in a way that maintains the integrity of the watershed.
- 2) Residents want to be protected from deterioration of their quality of life that can result from noise, odours, air emissions, traffic dust, nighttime light and aesthetic effects of upstream oil and gas operations in the Battle Lake watershed.
- 3) There is an opportunity to improve trust between the community, oil and gas companies and regulators if parties
  - are informed about potential developments and issues,
  - are empowered to have their concerns heard,
  - effectively respond to concerns of others,
  - willingly come to the table early to resolve issues,
  - can expect commitments to be honoured even when ownership changes hands, and
  - can be confident that compliance is achieved through good operating practices, appropriate monitoring and enforcement when necessary.
- 4) Opportunity exists to minimize the impacts of upstream oil and gas development through collaboration in sharing facilities, leases, roads and pipeline rights-of-way.
- 5) Effective and timely disclosure and remediation of spills and reclamation of nonproductive oil and gas facility sites is needed to reduce the overall industry footprint in the area and improve community relationships.

- 6) Community members need confidence that their concerns regarding protection of surface and nonsaline groundwater quality and quantity will be addressed by industry practices and regulatory requirements for drilling, completing, operating and abandoning oil and gas wells, as well as for preventing and remediating spills and leaks.



- 7) Opportunity exists to enhance environmental protection and reduce impacts on the Battle Lake community through design, construction and operating practices targeted at reducing risks of surface water contamination, minimizing overall surface disturbance, reducing emissions and noise and early detection of leaks and spills.

## Draft Recommendations

- 1) Use a three-tiered approach to identifying protection priorities for land areas in the Battle Lake watershed:
  - Tier 1 lands would be key environmentally sensitive areas where new disturbance should be avoided. These areas would include the relatively steep slopes or escarpment that runs

parallel to the lake, wetlands, riparian zones and public lands natural areas. Within the Tier 1 area

- operators are expected to investigate alternative approaches for oil and gas development and select those that avoid further disturbance of Tier 1 areas;
- nonroutine EUB applications should be mandatory for new oil and gas development in Tier 1 area; and
- a protocol for area consultation and mitigation practices (e.g., extra spill containment) should be used by operators if they balance new Tier 1 development is necessary.



- Tier 2 lands would be undisturbed natural cover areas not covered by the Tier 1 designation. Operators would be expected to assess and implement options to avoid and minimize disturbance of Tier 2 sites, such as locating on Tier 3 areas or on naturally modified areas (e.g., fire- or insect-damaged

areas), using low-impact seismic, reducing facility site and right-of-way clearing and, conducting early reclamation of natural cover following disturbances. Normal EUB *Directive 056: Energy Development Applications and Schedules* application processes would apply.

- Tier 3 lands would be disturbed (agricultural, industrial) lands not covered by Tier 1 or 2. Current practices and regulations would apply to these areas. This covers the majority of the lands in the approximately two township pilot project area.
- 2) Forward a recommendation to Alberta Department of Energy that the future oil and gas rights sales include notification that access may be restricted in the Tier 1 area. Forward a similar recommendation to Alberta Sustainable Resource Development regarding disposition of surface leases on public lands in the Battle Lake watershed.
  - 3) Form a local industry Technical Subcommittee to share information on existing facilities and on available capacities, as well as to work together to minimize proliferation of facilities and surface disturbances in the area. The Technical Subcommittee may also assist in coordinating work plans so that heavy traffic is better managed.
  - 4) Develop a suite of Battle Lake watershed recommended practices. The pilot project has provided few initial practice concepts, as well as suggested topics for further development by the Battle Lake Watershed Synergy Group. The synergy group should “own” the process and complete the recommended practices. There would be no regulatory “backstop” in terms of a formal requirement for the practices, similar to what happens in other synergy group areas (e.g., Sindre Petroleum Operators Group).
    - a) Key recommended facility design and operating practices would deal with
      - noise sources in the Battle Lake basin (address unique acoustics),
      - reduced nighttime lighting of facilities,

- spill and runoff containment,
- timely reclamation of spills and nonproducing sites,
- measures to reduce truck traffic hazards and impacts,
- other relevant measures identified from review of other synergy group products, and
- signage to identify oil and gas company operating and maintenance staff vehicles.

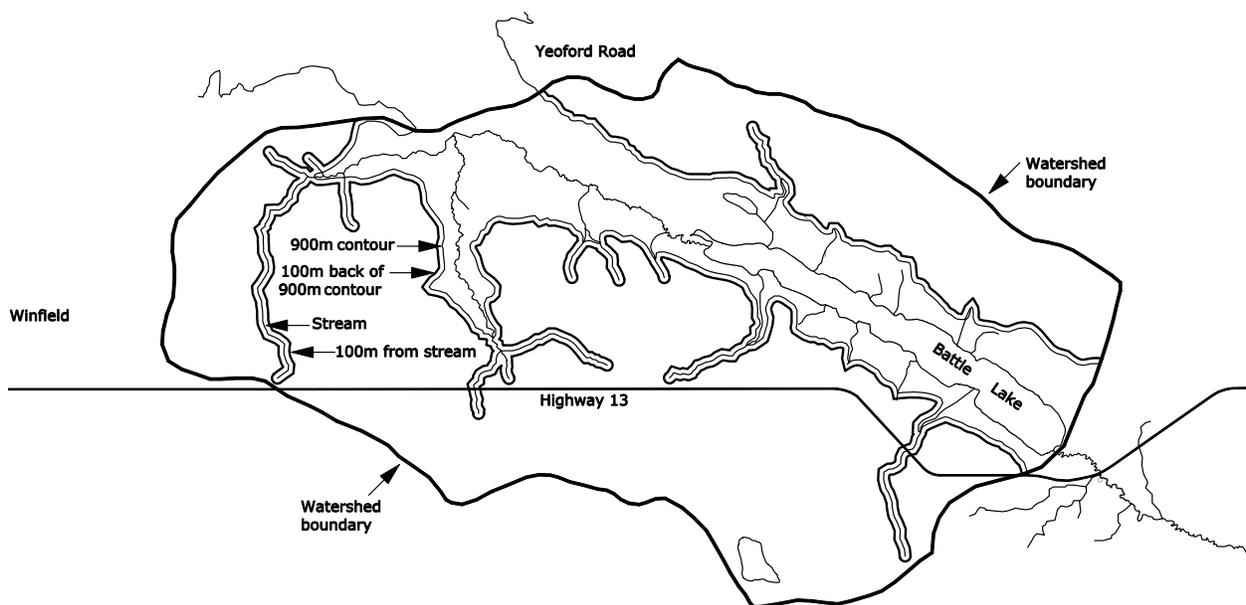
b) A protocol to assist oil and gas companies in planning Battle Lake watershed developments should be part of the recommended practices. The protocol would address

- a review of area information on the watershed, including mapped information pulled together by the project team and map designation of the three tier areas and descriptions of best practices for the area;
- an expectation that site visits and assessments be done to verify the suitability of potential oil and gas well and facility locations before plans are finalized; and
- an explanation of how Battle Lake information and best practices should be incorporated into development plans.

Operators are expected to apply the Battle Lake Watershed Synergy Group recommended practices in planning, constructing and operating upstream oil and gas developments throughout the watershed.

5) Enable ongoing discussion and dialogue between the oil and gas industry and the community through the Battle Lake Watershed Synergy Group. This would provide a forum for industry to share area development plans and a means to develop and communicate area recommended practices. Additional measures that the Synergy Group may want to consider include

- forming a subcommittee to develop a communications strategy that would foster strong ongoing communications within the area,
- sponsoring community events, such as a neighbours' day to encourage broader interaction between industry and residents and to enable sharing information on the area, industry and recommended practices, and
- making information readily available on the area, including the mapping prepared for the project team, this report and area recommended practices. This includes working with Synergy Alberta to establish and sustain a Battle Lake Watershed Synergy Group Web site.



**Battle Lake Watershed Tier 1 map**



- 6) Define appropriate plans and responsibilities to support initial and ongoing implementation of the recommendations.

The EUB should

- develop and issue direction to implement nonroutine applications for the Tier 1 area and provide for technical review of related applications,
- continue to make Battle Lake information, including this report, available on its Web site,
- prepare and forward recommendations to Alberta Department of Energy and Alberta Sustainable Resource Development regarding notice on the potential for restricted access in Tier 1 areas (Recommendation 2), and
- continue active participation in the Battle Lake Watershed Synergy Group and its implementation of report recommendations.

The Battle Lake Watershed Synergy Group should establish

- a technical subcommittee (Recommendation 3),
- a subcommittee and process to further develop Battle Lake recommended practices (Recommendation 4), and

- a communications subcommittee and develop a communications strategy (Recommendation 5).

Upstream oil and gas operators active in the Battle Lake watershed should

- provide leadership and participation in forming and sustaining the technical subcommittee,
- continue to participate in and support the Battle Lake Watershed Synergy Group and its subcommittees,
- apply Battle Lake recommended practices appropriately and consistently in the area, and
- share information to assist each other in minimizing facilities proliferation and impacts on the Battle Lake watershed.

Battle Lake watershed residents should

- bring forward community concerns and perspectives to the Battle Lake Watershed Synergy Group,
- bring Battle Lake community perspectives to the Synergy Group subcommittees,
- assist the technical subcommittee with its processes to coordinate industry activities in a

way that reduces impacts on the community, and

- work with neighbours to listen for concerns and to facilitate understanding of the pilot project recommendations and the work of the Battle Lake Watershed Synergy Group within the community.
- 7) Provide for an evaluation of the results of the pilot project in two to three years. This would include
- reviewing information on development that occurred and related development impacts,
  - assessing the extent that recommended practices were used,
  - communicating with the community regarding the level of trust with industry and satisfaction with the implementation of recommendations,
  - assessing the effectiveness, as well as the cost and workload implications, of regulatory changes (e.g., Tier 1 nonroutine applications), and
  - evaluating what improvements could be made.

## Conclusion

The project team recognizes that its work was a pilot to test one means of addressing issues arising from multiple oil and gas activities in an area that residents and the EUB viewed as needing enhanced protection. The team recognizes that the Battle Lake pilot should not be viewed as a template for every area in the province where issues exist. For that reason, the team has included in this report a description of why the Battle Lake watershed is unique and merits unique consideration with respect to oil and gas development.

The project team believes that when it is determined that unique circumstances merit a process like the Battle Lake planning pilot, a focused process with a strong mandate can enable stakeholders with diverse interests to build respectful relationships and create effective solutions. In order to do this, industry and relevant government departments need to make appropriate information available in understandable formats, as well as to provide support to enable public members to participate.



# ACKNOWLEDGEMENTS

The pilot project received great support from the Battle Lake Watershed Synergy Group, area residents and upstream oil and gas companies active in the area, as well as from the County of Wetaskiwin and provincial government departments. These groups nominated representatives to participate on the pilot project team, provided input to the process and gave feedback to assist the team in improving its work.

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## Pilot Project Team

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## Support

The pilot team also acknowledges the support of

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## Information Requests

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