

Topic: Air Quality	
Recommendation	Response
1. Shell and other regional operators work with Fort McKay to finalize its HTES air quality criteria and targets. This recommendation is aimed at enabling Fort McKay's goals and strategies for air quality management to be implemented and will also assist in future project planning and air quality and emission management programs.	Shell will work with Fort McKay and other regional operators to finalize its HTES air quality criteria.
Topic: Disturbance and Access	
Recommendation	Response
2. The maximum area permitted to be disturbed at any time at both the Pierre and Jackpine Mine Expansion, should be established with further disturbance being permitted only upon successful reclamation of previously disturbed areas.	Shell does not support the concept of a maximum disturbance limit. This issue is addressed by the Terrestrial Ecosystem Management Framework (TEMF). In addition, as stated in the Fort McKay Technical Review response to Question 69, Shell supports early reclamation. The pace of reclamation is determined by the time at which landforms are completed and ready to receive reclamation contouring and material placement, as shown in the Closure, Conservation and Reclamation Plan (C,C&R). Opportunities to increase the pace of reclamation and use direct placement methods are assessed at each updated mine plan, and operational C,C&R plan.
3. The regulators should establish limits on the amount of development (i.e., ground disturbance) that can occur within the Fort McKay Traditional Lands and oil sands region and any one time.	See response to Recommendation 2.
4. The regulators should establish limits on the amount of development (i.e. ground disturbance) and flow changes that can occur within watersheds within Fort McKay's Traditional Lands and the oil sands region at any one time.	<p>(For a response on cumulative ground disturbance, please see the response to Recommendation 2).</p> <p>In terms of cumulative flow reduction, provincial regulators are responsible for the implementation of regional planning initiatives that would identify limits on water consumption. Shell is participating in regional watershed planning initiatives, such as the Phase 2 Framework that will define limits on water use from the lower Athabasca River, and the Muskeg River Management Plan. In addition, there are a number of other regional planning initiatives in progress that will inform decisions on regional water use. The primary initiative underway as part of the provincial Land-Use Framework is the development of the Lower Athabasca Regional Plan (LARP), which is being developed by a multi-stakeholder Regional Advisory Council. In addition, the newly established Athabasca Watershed Council, which is the designated Watershed Planning Advisory Council (WPAC) for the entire Athabasca Watershed Basin, is responsible for developing an Integrated Watershed Management Plan for the Athabasca River watershed that will be used to help inform decision-makers under the Land-Use Framework.</p> <p>For further information, please see Shell's responses to Technical Review Questions 39 and 40.</p>

Topic: Disturbance and Access	
Recommendation	Response
<p>5. The regulators should establish, in consultation with Fort McKay, protected areas within Fort McKay Traditional Lands that protect a range of traditional uses and values, including the biodiversity necessary to preserve traditional land use. All protected areas need to be accessible to Fort McKay and a portion of protected areas need to be located near the Community.</p>	<p>Shell believes this question is very similar to Questions 88 and 97 of the Technical Review. In the responses to those questions, Shell noted its support for protected areas as evidenced by our work on and conditional support of the Sustainable Ecosystems Working Group (SEWG) TEMF.</p> <p>In response to Question 140 of the Technical Review, Shell provided clarification on its position on TEMF; Shell supported the intent of the Terrestrial Ecosystems Management Framework including no sale of further leases on designated areas until 2011.</p> <p>Shell's concerns with TEMF included:</p> <ul style="list-style-type: none"> • Restrictions of rights for existing lease holders. • Lack of agreement on portion of lands to be designated as protected. • Speed of reclamation requirements – Shell is working diligently but cannot commit to faster rates. • Conceptual nature of plan – Shell would suggest that a more detailed plan is required. <p>Shell acknowledged that Alberta Environment has not adopted this proposed framework, but is reported to be managing this through its pending Land Use Framework. Shell concluded that it supports the development of protected areas in the Regional Municipality of Wood Buffalo (RMWB) that is consistent with Shell's Biodiversity Standards and Strategy.</p>
<p>6. The regulators should set limits on motorized access for non-Fort McKay members within Fort McKay's Traditional Lands.</p>	<p>Shell believes this question is very similar to Question 143 of the Technical Review, where Fort McKay suggested it may want to request that the regulators consult with them in developing access management plans within Fort McKay's Traditional Lands that include limits to motorized access, designated use areas and limits on the density of linear features. Density limits would require successful implementation of Integrated Landscape Management (coordination of access features between users).</p> <p>In its response to Technical Review Question 143, Shell stated it recognizes this is an issue for Fort McKay. For PRM, Shell has proposed to limit access across the proposed bridge. Shell further stated that it believes that the responsibility for providing regional and local infrastructure is with Government, both for funding and timely implementation of infrastructure requirements. Shell concluded noting it will work closely with regional and provincial government departments and agencies as well as industry groups to provide information with respect to Shell's current and future projects in a timely manner so as to assist infrastructure planning.</p>
<p>7. Fort McKay should be made aware of economic opportunities arising from recreation and tourism associated with access and/or land use management plans.</p>	<p>Shell welcomes further discussions with Fort McKay on how Shell could support the community in becoming aware of economic opportunities related to recreation and tourism.</p>

Topic: Surface Water	
Recommendation	Response
<p>8. The development and implementation of a complete Watershed Management Plan for the Muskeg River Watershed, in consultation with Fort McKay, to establish impact limits that retain both undisturbed areas and natural seasonal stream flow patterns, and provide direction to the Jackpine Mine Expansion and other developments. The state of the Muskeg River Watershed is assessed as Endangered for the Base Case, Application Case and Planned Development Case: a watershed management plan is critical. (Project-specific and cumulative effects recommendation).</p>	<p>Shell currently develops operational and closure plans for Shell lands that incorporate water management planning to minimize effects to the hydrology and water quality of receiving streams, including the Muskeg River. However, given the multiple oil sands operators and stakeholders within the Muskeg River watershed, Shell agrees that the development of a Muskeg River watershed plan would be beneficial. Shell's position is that watershed planning in this case would be most appropriately led by the Alberta Government. Shell would hope to be an active supporter of and participant in the development of this plan, along with other operators and stakeholders such as the Fort McKay First Nation.</p>
<p>9. That Shell takes steps to minimize large changes in streamflow associated with the Pierre River Mine. The Pierre River watershed is assessed as Threatened for the Application case, primarily due to changes in seasonal stream flow.</p>	<p>Shell believes they have taken all practical steps to minimize changes in streamflow associated with the Pierre River Mine. The steps include:</p> <ul style="list-style-type: none"> • Minimization of the Project footprint while accommodating other constraints (e.g. meeting geotechnical requirements for sustainable structures through appropriate dyke slopes). • Minimization of areas contained in closed-circuit during operations through careful alignment of diversion ditches and through progressive reclamation, which would potentially allow the release of water to the environment as soon as possible. • Minimization of pit lake surface areas (while maintaining appropriate volumes for water quality amelioration). • At closure, to the extent feasible given the constraints imposed by topography, re-establishment of pre-development watershed areas to watercourses.
Topic: Water Quality and Fisheries Resources	
Recommendation	Response
<p>10. In addition to project specific monitoring by Shell, monitoring of the Pierre River Mine Project watercourses and surface water bodies should be undertaken pursuant to a scientifically defensible and peer-reviewed regional monitoring program. While RAMP is a regional based monitoring program, it samples on an infrequent basis so therefore it cannot provide the only monitoring for the project or the region.</p>	<p>The Regional Aquatics Monitoring Program (RAMP) is currently under three separate reviews. RAMP voluntarily submitted the program for a second round of peer review this summer. Shortly thereafter, the provincial and federal governments implemented their own government-appointed reviewers. Monitoring that is implemented by Shell and RAMP will consider the recommendations from these reviews, as well as specific recommendations from stakeholders.</p>

Topic: Surface Water	
Recommendation	Response
<p>11. A mitigation, compensation and accommodation plan to be developed in consultation with Fort McKay with respect to adverse effects and loss of key cultural and traditional use areas of the Muskeg River watershed, including Kearl Lake, and Athabasca River tributaries affected by the Pierre River Mine Project.</p>	<p>Shell believes this question is very similar to Question 154 of the Technical Review where Fort McKay suggested that it would like to collaborate with Shell to develop a mitigation and offset plan in relation to the adverse effects and loss of key cultural and traditional use areas that would be affected by the JPME and PRM.</p> <p>As with the response to Question 154, Shell welcomes ongoing discussion with Fort McKay to better understand its specific intentions and to understand what role, if any, Shell can play in assisting Fort McKay with this plan.</p>

Topic: Vegetation	
Recommendation	Response
<p>12. Establishment of limits on the amount of development necessitating ground disturbance that can occur within Fort McKay's Traditional Lands and the oil sands region, in consultation with Fort McKay.</p>	<p>This is addressed by TEMF for the RMWB.</p>
<p>13. Further mitigation measures and accommodation strategy be developed in consultation with Fort McKay: reclamation does not provide effective mitigation for the Project specific or cumulative loss of Traditional Lands and resources upon which Fort McKay's culture and rights depend.</p>	<p>Shell acknowledges Fort McKay's concerns regarding reclamation approach, and sought clarification on the view of the community towards reclamation as effective mitigation in the recent Fort McKay Specific Assessment meeting (November 5, 2010). Fort McKay expressed a desire to be engaged in the reclamation process from planning to execution, so that the community could share a sense of ownership and engagement in the reclamation process. Shell's reclamation approach aligns with Fort McKay's desire to reclaim land for traditional purposes, and looks forward to working with Fort McKay in the Fort McKay/Shell Reclamation Focus Group and other opportunities agreed to by Shell and the community to work on reclamation and community engagement.</p>

Topic: Wildlife	
Recommendation	Response
<p>14. Planning of oil sands development based upon wildlife habitat values and traditional land use. For example, preferentially allow oil development in land that is less valuable to the Fort McKay Community and has lower wildlife habitat quality values.</p>	<p>Regional planning in the Lower Athabasca Region is currently being developed by the Government of Alberta within the context of Alberta's Land-use Framework (LUF). The LUF sets out a new approach to managing the province's land and natural resources to achieve Alberta's long-term economic, environmental and social goals including those of First Nations. To increase the depth of local knowledge on which to base a new plan for the region, the Lower Athabasca Regional Advisory Council (RAC) was struck by the Alberta Government in December 2008 to provide advice based on local insights and perspectives regarding current and future land use activities and challenges in the region. The RAC is comprised of a cross-section of Albertans living and/or working in the Lower Athabasca Region including two representatives of the traditional communities in the region, the First Nations and the Métis. An integral part of the comprehensive planning process is the integration of aboriginal traditional knowledge to the maximum extent possible. The RAC's work has also been informed by many people living, working and doing business in the region through feedback to the RAC, consultation meetings, workshops and written submissions.</p> <p>The RAC released its "Advice to the Government of Alberta Regarding a Vision for the Lower Athabasca Region" in August 2010. This document includes a vision statement, outcomes, objectives and strategies for LARP including a proposed land use classification system. The land use classification includes agriculture, conservation, mixed resource use, population centres and recreation and tourism zones. The areas with significant oil sands reserves, including Shell's proposed Jackpine Mine Expansion and Pierre River Mine Project, tend to occur in the mixed resource use zone.</p> <p>The intent of the mixed resource use designation is to encourage and support economic activities associated with resource development in parts of the forest area while maintaining a large permanent area of forest cover managed in an integrated framework. The intent is that development activities and facilities (e.g., plants and work camps) are managed to minimize impacts to rivers, lakes and groundwater. In addition, respecting the integrity of known significant cultural resources and aboriginal traditional use, and ensuring appropriate timely reclamation of the forest are expected. Mining will need to be coordinated with the harvesting of merchantable timber before oil sands development.</p>

Topic: Wildlife	
Recommendation	Response
14. (Continued)	The area will be progressively reclaimed for other uses (e.g., traditional uses, forestry, recreation, conservation, etc.) as soon as possible upon the completion of oil sands development. Uses after reclamation will be determined through multi-stakeholder input. No more than 15% of the mixed-use resource area will be disturbed for oil sands extraction footprint at any one time. The long-term priority is harvesting forests and extracting bitumen in appropriate areas while maintaining a significant area of Boreal forest at all times for its ecological values and treaty obligations.
15. Limit approvals to developments that have the lowest environmental impacts on wildlife habitat. For example, in-situ developments with low emissions with effective wildlife mitigation (such as wildlife pipeline crossings) in low quality wildlife habitat	See response to Recommendation 14.
16. Acceleration of reclamation of disturbed areas in the mineable oil sands area. Additional development approval based upon reclamation performance and re-establishment of effective wildlife habitat. For example, approval of further development be contingent on the amount of moose habitat re-established in reclaimed areas or wildlife habitat protected with conservation offsets.	Shell acknowledges the concerns of Fort McKay related to accelerating the pace of reclamation. There are many factors, including the mine plan, tailings management plan and planning to limit the disturbance footprint as much as possible, that impact the speed with which reclamation can be carried out. Shell mining projects are in their early operating years, and reclamation will continue to be carried out when areas become available for reclamation activities. Shell does not support further development contingent on re-establishment of moose habitat, as the timelines for which performance are to be measured have not yet been delineated by Alberta Environment and will likely be too far into the future to allow for efficient resource production and mine planning. Shell will reclaim moose habitat when areas become available for reclamation. Re-establishment of effective wildlife habitat is occurring (e.g. Suncor) and wildlife use of watercourse corridors (Shell Jackpine Mine – Phase 1 monitoring to date) provide support for the prediction that effective wildlife habitat will be re-established in the closure landscape.
Topic: Reclamation	
Recommendation	Response
17. Recreation in the post-mining landscape of the surface water and groundwater hydrologic conditions that existed prior to mining.	Shell acknowledges Fort McKay's concern regarding groundwater and hydrologic conditions in the closure landscape. Shell is particularly focused on creating functional groundwater and hydrologic systems that work with the reclamation landscape created after mining to provide the appropriate end land uses and a safe environment. Shell will work with Fort McKay in the Fort McKay/Shell Reclamation Focus Group to further explore relevant actions on the Shell mine sites.
18. Establishment of criteria to determine reclamation success, including standards for water quality.	Shell shares Fort McKay's desire for clarity on benchmarks and targets for reclamation success, and is currently working within CEMA and with the Government of Alberta to draft reclamation success standards that will provide this guidance.

Topic: Wildlife	
Recommendation	Response
<p>19. Fort McKay be consulted and its approval sought prior to the issuance of any reclamation certificate on its Traditional Lands.</p>	<p>Shell acknowledges Fort McKay's concern around the reclamation certification process. Shell is currently working with CEMA and the Government of Alberta to seek information on the certification process and encourages Fort McKay to engage Alberta Environment on aspects of the certification consultation process.</p>
<p>20. Alternative accommodation measures including conservation offsets and protected areas be developed, in consultation with Fort McKay. Reclamation is not considered effective mitigation for the purpose of environmental assessment or management of adverse effects due to the (a) uncertainty of the effectiveness of current reclamation processes and technology, (b) the lack of knowledge and ability to restore organic wetlands (c) the length of time reclamation will take, and (d) the inability to restore the land to its pre-disturbance state.</p>	<p>As discussed in previous responses, Shell supported the intent of the Terrestrial Ecosystems Management Framework. While AENV has not adopted this proposed framework, but is reported to be managing this through its pending Land Use Framework, Shell supports the development of protected areas in the RMWB that is consistent with Shell's Biodiversity Standards and Strategy.</p> <p>While Shell does not share Fort McKay's assertion that reclamation is not effective mitigation of environmental effects, Shell acknowledges Fort McKay's concerns regarding reclamation approach and welcomes ongoing dialogue. During our recent Fort McKay Specific Assessment meeting (November 5, 2010), Fort McKay expressed a desire to be engaged in the reclamation process from planning to execution, so that the community could share a sense of ownership and engagement in the reclamation process. Shell's reclamation approach aligns with Fort McKay's desire to reclaim land for traditional purposes, and looks forward to working with Fort McKay in the Fort McKay/Shell Reclamation Focus Group and other opportunities agreed to by Shell and the community to work on reclamation and community engagement.</p>