

## Review Comment Table

<b>Board:</b>	SLWB
<b>Review Item:</b>	Husky Oil Operations Ltd. Slater River 2018/19 Well Abandonment Program (S13A-002/S13L1-005)
<b>File(s):</b>	<a href="#">S13A-002</a> <a href="#">S13L1-005</a> <a href="#">S13L1-006</a> <a href="#">S13X-003</a>
<b>Proponent:</b>	Husky Oil Operations Ltd.
<b>Document(s):</b>	<a href="#">Project Description Report</a> (1.43 MB) <a href="#">Maps and Drawings for 2018/19 Well Abandonment Program</a> (7.9 MB) <a href="#">Engagement Record for 2018/19 Well Abandonment Program</a> (16.35 MB) <a href="#">updated Waste Management Plan for 2018/19 Well Abandonment Program</a> (24.3 MB) <a href="#">Closure and Reclamation Plan for Slater River Program</a> (1.37 MB)
<b>Item For Review Distributed On:</b>	Dec 13 at 14:01 <a href="#">Distribution List</a>
<b>Reviewer Comments Due By:</b>	Jan 4, 2019
<b>Proponent Responses Due By:</b>	Jan 11, 2019
<b>Item Description:</b>	<p>Husky Oil Operations Ltd. (Husky) submitted updated Project documents for the 2019 Slater River Abandonment Program to the SLWB on December 6, 2018. These submissions include:</p> <ul style="list-style-type: none"> <li>• <b>Project Description Report</b> and associated <b>Maps and Drawings</b>;</li> <li>• <b>Engagement Record</b> as required by S13X-003 condition 26(1)(Q) 1;</li> <li>• <b>Updated Waste Management Plan</b> as required by S13L1-005 Part D, condition 2; S13A-002 condition 37; S13L1-006 Part D, condition 3; S13X-003 condition 26(1)(I) 1.</li> <li>• <b>Closure and Reclamation Plan</b> as required by S13X-003 condition 26(1)(O) 3; and S13A-002 condition 65.</li> </ul> <p>The Slater River Drilling Program authorized under Licence S13L1-005 and Permit S13A-002 is moving into decommissioning activities with the plan to complete downhole well abandonment of two vertical wells (Little Bear H-64 and Little Bear N-09) during the winter 2018/19. During the same time period, Husky will also decommission the 12 groundwater monitoring wells associated with Permit S12X-006. The Site Wide Services to support this abandonment and decommissioning activity are authorized under Licence S13L1-006 and Permit S13X-003. These services include staging, access road construction, logistics, security and camp operations. No new lands or</p>

	<p>access will be required. All work will occur within existing land disturbances authorized under existing Permits and Licences. Water use will be less than previous programs and less than the volumes authorized under existing Water Licences.</p> <p><b>Reviewers are invited to submit comments, and recommendations using the Online Review System (ORS) by the review comment deadline specified below. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the proponent prior to submitting comments and recommendations.</b></p> <p>Reviewers may also wish to consider providing an overarching recommendation regarding whether the Board should approve the submission, to provide context for the comments and recommendations and assist the Board with its decision.</p>
<b>General Reviewer Information:</b>	All documents that have been uploaded to this review are also available on our public registry. If you have any questions or comments about this review or the ORS, please contact Bonnie Bergsma at (867) 496-2778 or by email <a href="mailto:bonnie.bergsma@slwb.com">bonnie.bergsma@slwb.com</a> .
<b>Contact Information:</b>	Aswathy Varghese 8675982413 Bonnie Bergsma

## Comment Summary

Environment and Climate Change Canada: Russell Wykes				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
4	General File	<b>Comment (<a href="#">doc</a>)</b> Cover Letter <b>Recommendation</b>		
5	General File	<b>Comment (<a href="#">doc</a>)</b> Appendix A <b>Recommendation</b>		
1	Species At Risk	<b>Comment</b> ECCC notes that there is no mention of any mitigation measures in place to address potential threats to species at risk in the project area. The killing, harming or harassing of listed species; the damage and destruction of their residences; and the destruction of critical habitat is prohibited under SARA. The prohibitions apply to all Threatened, Endangered and	<b>Jan 11:</b> The “Project Description” document recently submitted to the SLWB is merely an update of the current phase of the Slater River project which is permitted under LUP S13A-002 / WL S13L1-005 (Drilling/Completions/Testing/Abandonment of hydrocarbon wells) and LUP S13X-003 / WL S13L1-006 (Site Wide Services including all-weather road, winter access, camp, quarries, security station, staging site). The potential impacts	Response acceptable

		<p>Extirpated species listed on Schedule 1 of SARA on federal lands and to Migratory Birds (as defined under the Migratory Birds Convention Act) and aquatic species (as defined under the Fisheries Act) everywhere they are found. If Species at Risk are encountered or affected, the primary mitigation measure should be avoidance. The proponent should avoid contact with or disturbance to each species, its habitat and/or its residence. A list of species at risk in the project area has been attached as Appendix A.</p> <p><b>Recommendation</b> ECCC recommends that the Proponent include relevant information regarding species at risk within the project area, including mitigation strategies available to minimize potential impacts to sensitive species. All mitigation measures identified by the Proponent should be strictly adhered to in conducting project activities. This will require awareness on the part of the Proponents' representatives (including contractors) conducting operations in the field. ECCC recommends that all field operations staff be made aware of the Proponents' commitments to these mitigation measures and provided with appropriate advice / training on how to implement these measures.</p>	<p>to environment and wildlife were previously assessed, and can be found in the "Environmental Protection Plan; Slater River Drilling Program; Little Bear H-64 ; Little Bear N-09"; under LUP S11A-003 (which, as described in the current Project Description, was consolidated into S13A-002) as well as the "All-Weather Access Road and Associated Facilities Slater River EL462 and EL463 under S12F-007 (which was consolidated into S13X-003)".</p> <p>Mitigation measures that address potential threats to species at risk in the project area are described in these EPPs. Husky confirms that the mitigation measures identified in the EPPs will be adhered to throughout project activities. Husky employees, field personnel and contractors have been made aware of the Husky's commitments to these mitigation measures. Husky environmental operations field personnel in place on the project have been provided with appropriate advice and training on how to implement these measures.</p>	
2	Migratory birds	<p><b>Comment</b> ECCC is responsible for implementing the Migratory Birds</p>	<p><b>Jan 11:</b> Husky acknowledges and understands the legal obligation to prevent detrimental effects on</p>	Response acceptable

	<p>Convention Act, which provides for the protection of migratory birds through the Migratory Birds Regulations, and to develop and implement policies and regulations to ensure the protection of migratory birds, their eggs, and their nests. Paragraph 6(a) of the Migratory Bird Regulations states that no one shall disturb or destroy the nests or eggs of migratory birds. Migratory birds, the nests of migratory birds and/or their eggs can be inadvertently harmed or disturbed as a result of many activities including but not limited to clearing trees and other vegetation, draining or flooding land, or using fishing gear. The inadvertent harming, killing, disturbance or destruction of migratory birds, nests and eggs is known as incidental take. Incidental take, in addition to harming individual birds, nests or eggs, can have long-term consequences for migratory bird populations in Canada, especially through the cumulative effects of many different incidents. In the project area (Nesting zone B8) migratory birds may be found nesting from approximately the beginning of May until mid August. In addition the general nesting period may not be accurate for species that can breed at any time when conditions are right, such as Red Crossbills and White-winged Crossbills nesting in winter when cone crops are</p>	<p>migratory birds, nests and eggs and help maintain sustainable populations of migratory birds; and will avoid engaging in potential destructive or disruptive activities in key sensitive periods and locations. Husky developed and will implement appropriate preventative and mitigation measures to minimize the risk of incidental take, as described in the EPPs mentioned in the above response.</p>	
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	<p>available, and for species that may nest later such as Cedar Waxwing, Bohemian Waxing, and Pine Siskin. This also applies to mountainous landscapes where the nesting period can start later on mountain tops or earlier in valleys. If nests containing eggs or young of migratory birds are located or discovered, all disruptive activities in the nesting area should be halted until nesting is completed. Any nest found should be protected with a buffer zone appropriate for the species and the surrounding habitat until the young have naturally left the vicinity of the nest. Moreover, if there are migratory bird nests where work is proposed, options like avoiding, adapting, rescheduling or relocating activities that could disturb or destroy the nests should be considered. For further information on how to protect migratory birds and their nests and eggs when planning or carrying out project activities, consult Environment and Climate Change Canada's web page at: <a href="https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html">https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html</a> for general guidance on avoidance of incidental take of migratory birds and the linked fact sheet "Guidelines to reduce risk to migratory birds".</p> <p><b>Recommendation</b> To prevent detrimental effects on migratory birds, nests and eggs</p>		
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		and help maintain sustainable populations of migratory birds, ECCC recommends that proponents know their legal obligations; avoid engaging in potential destructive or disruptive activities in key sensitive periods and locations; and develop and implement appropriate preventative and mitigation measures to minimize the risk of incidental take.		
3	Fisheries Act- Waste Management Update Plan Section 3b, 3e.	<p><b>Comment</b> Section 36(3) of the Fisheries act states that no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water. The deposition of sediment from erosion can be considered a deleterious substance. Discharging any water to the environment should be done only after a suitable erosion control plan has been created.</p> <p><b>Recommendation</b> ECCC recommends that the Proponent establish erosion control measures for all water discharge locations in order to prevent sediment from erosion from entering a fish bearing water body.</p>	<p><b>Jan 11:</b> Husky has established erosion control measures for all water discharge locations in order to prevent sediment from erosion from entering a fish bearing water body. These measures were initially described in the original EPPs mentioned above and Husky has also been working closely with the SLWB and GNWT Lands and Water Inspectors to ensure measures have been implemented on the Slater River program.</p>	Response acceptable
<b>GNWT - ENR: Central Email GNWT</b>				
<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Response</b>
6	General	<b>Comment</b> ( <a href="#">doc</a> ) ENR Letter		

	File	with Comments and Recommendations <b>Recommendation</b>		
1	Waste Management Plan (Topics 1 to 3) Topic 1: Water Discharge	<b>Comment</b> Section 3, b, explains that once waste is treated in the mobile sewage treatment system and meets the discharge requirements, effluent is discharged to the surrounding environment. ENR notes to minimize potential impacts to a watercourse, Husky should maximize the distance between any discharge of effluent to land and the nearest surrounding watercourse. <b>Recommendation</b> 1) ENR recommends Husky maximize the distance between any discharge of effluent to land and the nearest surrounding watercourse.	<b>Jan 11:</b> Husky confirms that it will maximize the distance between any discharge of effluent to land and the nearest surrounding watercourse.	Response acceptable
2	Topic 2: Ash Sampling Frequency	<b>Comment</b> Section a, xii, of the Waste Management Plan explains that to classify the waste for shipment and to ensure the ash is not hazardous, periodic samples will be taken and sent to an accredited lab for analysis. ENR notes it isn't clear how often ash will be sampled to ensure it is not hazardous. <b>Recommendation</b> 1) ENR recommends Husky clarify how often ash will be sampled to ensure it is not hazardous.	<b>Jan 11:</b> Husky will sample the ash once for classification prior to each disposal to ensure that it is directed to the appropriate disposal facility. Husky anticipates the total volume of ash that may be produced from this phase of the Slater River project to be approximately 2m <sup>3</sup> - 3m <sup>3</sup> .	Response acceptable
3	Topic 3: Incinerators	<b>Comment</b> Section a, v, of the Waste Management Plan explains that Husky mobilized two incinerators to site in 2012. However, Appendix C notes that there are three incinerators in total that will be in operation.	<b>Jan 11:</b> As stated on Page 14 of the Waste Management Plan, Husky confirms the total number of incinerators that will be in operation at the site during the Slater River well abandonment program is two, which will be stationed at the main base camp.	Response acceptable

		<p><b>Recommendation 1)</b> ENR recommends Husky clarify the number of incinerators that will be in operation at site during the abandonment program.</p>		
4	<p>Closure and Reclamation Plan (Topics 4 to 5) Topic 4: Compliance with Water Licences</p>	<p><b>Comment</b> Section 1 explains that reclaimed areas are anticipated to be inspected over the next 3 to 5 years to ensure stability and vegetative growth is satisfactory. However, Part E, Condition 1 of both Water Licences (S13L1-005 and S13L1-006) require the licensee to monitor the project area affected by activities relating to the issued Water Licence for any negative environmental effects for a minimum of five years to ensure that mitigation, reseeded, erosion control and reclamation efforts have been successful.</p> <p><b>Recommendation 1)</b> ENR recommends Husky ensure the monitoring timeline that is projected in the Closure and Reclamation Plan is in accordance with the conditions of Water Licences as well as the Land Use Permits.</p>	<p><b>Jan 11:</b> Husky will ensure that the monitoring timeline projected in the Closure and Reclamation Plan is in compliance with the terms and conditions of the Land Use Permits and Water Licences.</p>	<p>Response acceptable. Staff agree with ENR that timelines should correspond between Licence and Permit conditions and the C and R Plan.</p>
5	<p>Topic 5: Schedule of Activities</p>	<p><b>Comment</b> Section 8 outlines the integrated schedule of activities for 2019. In addition to a short-term schedule, ENR notes a more long-term schedule of activities should be included to plan for each phase of closure and reclamation and, to ensure the requirements of the Water Licences are fulfilled. To account for progressive reclamation activities, a long-term schedule</p>	<p><b>Jan 11:</b> While Husky does not have specific long-term schedules for each component at this time, we will update the Closure and Reclamation Plan to reflect this and will obtain approval from the GNWT Lands Inspector prior to proceeding.</p>	<p>Staff agree that the C and R Plan can be updated to include long-term schedules for each component.</p>

		<p>should be component specific and track each phase such as reclamation activities, monitoring and any periodic reporting. A long-term schedule should also include any plans such as the Soil Management Plan, Revegetation Plan and surface water management strategy that will be required for the reclamation of Quarry B.</p> <p><b>Recommendation</b> 1) ENR recommends Husky include component specific long-term schedules in the Closure and Reclamation Plan to ensure successful completion of progressive reclamation.</p>		
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**Sahtu Renewable Resource Board: Colin Macdonald**

<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Response</b>
1	Closure and Reclamation Plan - Summary	<p><b>Comment</b> Page 4 – “As the project progresses through further monitoring, inspections, and seasonal changes, team members are expected to revise and further develop this plan. As such this document should be considered an interim Closure and Reclamation Plan.”</p> <p><b>Recommendation</b> All changes from this plan need to be approved by an Inspector. If the Plan, or the timeline, is significantly modified it should be reviewed and resubmitted to the SLWB for approval. Husky indicates that this is an “interim” Closure Plan (Line 1 - Page 6) - a final plan needs to be approved before work commences.</p>	<p><b>Jan 11:</b> Husky acknowledges that all changes from this Plan need to be approved by an Inspector. It is important to note that the word “Interim” was used as a way to define that the Closure and Reclamation Plan will be adapted as we progress reclamation work on the site components but all modifications will be approved by the Inspector prior to proceeding. Husky has been conducting active reclamation on the Slater River project for the past few years since our exploration activity ceased in 2014 and all work has proceeded under the approval of the Inspector who has made visits to the project site throughout this period. Also, as several components will remain in place (all-weather road, camp pad, staging site, and Quarry M) for potential future exploration activity, Husky is reluctant to call</p>	<p>Staff agree that the Board can approve an Interim Closure and Reclamation Plan with the requirement to revise the Plan as necessary to reflect changes or updates.</p>

			the Plan “final” as we are not closing the Slater River project. Another reason the word “Interim” was used is that as Husky progresses reclamation on specific project components, the Plan may have to be modified depending on how well certain strategies work; all of which will be under the direction and approval of the Inspector.	
2	Background	<p><b>Comment</b> Environmental Protection Plans were not reviewed in support of the C and R Plan review. It assumed that reference to the Plans is consistent with the intent of the C and R Plan.</p> <p><b>Recommendation</b> None.</p>		
3	C&R Plan	<p><b>Comment</b> The well sites are relatively small, with little disturbance due to the original construction taking place in winter. Soils will be sampled to characterise hydrocarbon and metal contamination. The airstrip will be remediated but the access road will be maintained to allow annual access to the sites. Annual inspections have reported few problems with these well sites.</p> <p><b>Recommendation</b> None.</p>		
4	Little Bear H-64 and N-09 Abandonment and Decommissioning	<p><b>Comment</b> No comment.</p> <p><b>Recommendation</b> None. The timeline indicates that the winter road will be constructed in December 2018 and equipment mobilised in January 2019. The timeline may have to be modified to accommodate these reviews and assessment by the SLWB.</p>		
5	Appendix 3	<p><b>Comment</b> Husky engaged with community and regional</p>		

Stakeholder Engagement Information	organisations in Tulit'a and Norman Wells several times in 2018 to discuss the Plan and other issues. Husky responses to questions were acceptable and reasonable. <b>Recommendation</b> None.		
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January 4, 2019

Bonnie Bergsma  
Regulatory Specialist  
Sahtu Land and Water Board  
Box 1,  
Fort Good Hope, NT X0E 0H0

Dear Ms. Bergsma,

**Re: Husky Oil Operations  
Water Licence - S13L1-005 - S13L1-006  
Land Use Permit - S13A002 - S13X003  
Project Description Report - Engagement Record - Updated Waste  
Management Plan - Closure and Reclamation Plan  
Request for Comment**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories has reviewed the documents at reference based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act* and provides the following comments and recommendations for the consideration of the Board.

**Waste Management Plan (Topics 1 to 3)**

**Topic 1: Water Discharge**

**Comment(s):**

Section 3, b, explains that once waste is treated in the mobile sewage treatment system and meets the discharge requirements, effluent is discharged to the surrounding environment. ENR notes to minimize potential impacts to a watercourse, Husky should maximize the distance between any discharge of effluent to land and the nearest surrounding watercourse.

### **Recommendation(s):**

- 1) ENR recommends Husky maximize the distance between any discharge of effluent to land and the nearest surrounding watercourse.

### **Topic 2: Ash Sampling Frequency**

#### **Comment(s):**

Section a, xii, of the Waste Management Plan explains that to classify the waste for shipment and to ensure the ash is not hazardous, periodic samples will be taken and sent to an accredited lab for analysis. ENR notes it isn't clear how often ash will be sampled to ensure it is not hazardous.

#### **Recommendation(s):**

- 1) ENR recommends Husky clarify how often ash will be sampled to ensure it is not hazardous.

### **Topic 3: Incinerators**

#### **Comment(s):**

Section a, v, of the Waste Management Plan explains that Husky mobilized two incinerators to site in 2012. However, Appendix C notes that there are three incinerators in total that will be in operation.

#### **Recommendation(s):**

- 1) ENR recommends Husky clarify the number of incinerators that will be in operation at site during the abandonment program.

### **Closure and Reclamation Plan (Topics 4 to 5)**

#### **Topic 4: Compliance with Water Licences**

#### **Comment(s):**

Section 1 explains that reclaimed areas are anticipated to be inspected over the next 3 to 5 years to ensure stability and vegetative growth is satisfactory. However, Part E, Condition 1 of both Water Licences (S13L1-005 and S13L1-006) require the licensee to monitor the project area affected by activities relating to the issued Water Licence for any negative environmental effects for a minimum of five years to

ensure that mitigation, reseedling, erosion control and reclamation efforts have been successful.

**Recommendation(s):**

- 1) ENR recommends Husky ensure the monitoring timeline that is projected in the Closure and Reclamation Plan is in accordance with the conditions of Water Licences as well as the Land Use Permits.

**Topic 5: Schedule of Activities**

**Comment(s):**

Section 8 outlines the integrated schedule of activities for 2019. In addition to a short-term schedule, ENR notes a more long-term schedule of activities should be included to plan for each phase of closure and reclamation and, to ensure the requirements of the Water Licences are fulfilled.

To account for progressive reclamation activities, a long-term schedule should be component specific and track each phase such as reclamation activities, monitoring and any periodic reporting. A long-term schedule should also include any plans such as the Soil Management Plan, Revegetation Plan and surface water management strategy that will be required for the reclamation of Quarry B.

**Recommendation(s):**

- 1) ENR recommends Husky include component specific long-term schedules in the Closure and Reclamation Plan to ensure successful completion of progressive reclamation.

Comments and recommendations were provided by ENR technical experts in the Water Resources Division and the Sahtu Region and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM), Environmental Stewardship and Climate Change Division.

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email [patrick.clancy@gov.nt.ca](mailto:patrick.clancy@gov.nt.ca).

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Clancy', written in a cursive style.

Patrick Clancy  
Environmental Regulatory Analyst  
Environmental Assessment and Monitoring Section  
Environmental Stewardship and Climate Change Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories