

Conformity Determination Report - Husky (For Discussion Only)

Applicant: Husky Oil Operations Limited

Application #: S11T-002/S11L3-002

Project Name: Slater River Staging Area, Access and Camp Operations – Type A Land Use Permit and Type B Water Licence

WORKSHOP NOTE: This application was chosen as a current and comprehensive example of land use in the Sahtu Settlement Area. The Sahtu Land Use Plan is not currently in effect and applications are not required to conform at this time. The Plan is rapidly evolving so it is unlikely that any application will fully conform. Findings of non-conformity in this report are intended as discussion tools only to illustrate where changes in process may be needed post-plan approval. They do not reflect the quality of the applications themselves.

Overall Questions/Comments:

1. What is the “activity” against which we determine conformity? Separate applications were submitted for different aspects (staging, drilling, 3D seismic program) of one overall project. For some aspects, it is possible to provide separate conformity determinations but in others the applications are more integrated and the information is shared between the two applications. We propose to treat them separately the same as the SLWB to the extent possible and provide separate conformity determinations, but it must be recognized that non-conformance in one application may affect the viability of the other.
2. An activity may cross different zones, resulting in different requirements for different geographical areas based on their unique values to be protected. The Environmental Protection Plan (EPP) doesn’t give any consideration to the different requirements of the different zones, putting the onus on the conformity determiner to tease out the different geographical elements against which some of the CRs have to apply. Once the Plan is approved, it would be helpful to give greater consideration to the geographical application of the CRs against specific project elements.
3. For discussion purposes, I have included criteria and analysis to support the conformity determination for each CR. Would that level of information be useful to maintain in post-plan approval conformity determination reports?

Existing Use Exemption:

Yes, the activity is related to 2 exploration licences granted before Plan approval. The activities are exempt from the prohibitions in CR #1 (not applicable as this isn’t in a CZ). All other CRs apply to the extent that they do not block the exercise of rights provided by the exploration licences. [Note: For discussion purposes, I’m pretending that this application was received after Plan approval.]

Overall Conformity Determination: Does Not Conform

- The activity as proposed does not conform to the following CRs:
 - CRs #13
- The activity as proposed conforms to the following CRs, subject to the further Implementation Requirements identified for each. Failure or inability to adhere to the identified Implementation Requirements for each means the activity does not conform and cannot be authorized:
 - CRs #3, 6, 10, 11
- The activity conforms as proposed to the following CRs:
 - CRs #1, 2, 4, 5, 7, 8, 9, 12, 14
- The following CRs are not applicable to this activity:
 - CRs #15-20

Project Description:

The access construction and camp operations will support exploration programs for EL462 and EL463 in 2011/2012 and future years as required. For 2011/2012 the exploration program consists of the drilling of two (2) test wells at N-09 and H-64 and conducting a 250km² 3D seismic program (separate applications).

This includes 5km new access from the GNWT winter road (at approximately 30km south of Norman Wells) to the Mackenzie River; a security checkpoint at the intersection of the access with the GNWT winter road; a 40-person temporary construction camp on the east side of the Mackenzie River; a 1.3km ice bridge across the Mackenzie River; two 40 x 40m helicopter pads (one on the east side and one on the west side of the Mackenzie River); approximately 55km of access on the west side of the Mackenzie River; a staging site and barge landing with 1.7km of associated access on the west side of the Mackenzie River; up to three camps (construction, drilling, and seismic) at a Base Campsite location capable of accommodating up to 150 persons; an airstrip on a frozen lake adjacent to the Base Camp; withdrawal of water from approved water sources for road construction and camp operations; water treatment plant and a portable sewage treatment system in support of camp operations.

A 40-person skid mounted crew camp and two wellsite trailers will be sited temporarily west of the GNWT winter road to accommodate early season road construction. The 40-person camp will operate at this location until access to the Base Camp site has been opened. Accommodation for drilling and seismic crews will utilize additional camp space that will be co-located at the Base Camp site. A second 40-person skid-mounted camp will be used for the drilling crew, and Seismic crews will be accommodated in a 55-person skid-mounted camp. Approximately seven wellsite trailers will be temporarily stationed at each lease to accommodate 15 personnel on-lease during the drilling process and will be mobilized and demobilized with the drilling rig (applied for in the Slater River Drilling program application submitted under separate cover).

As a contingency, and in the event that weather or other operational issues create a delay in the drilling program at N-09, it may be necessary to mobilize a second drilling rig to drill the H-64 location. In that event, a separate drilling camp site would be located on the access to H-64, approximately 2.4km south of the well site. This site would accommodate a 40-person

skidmounted camp, would utilize a portable sewage treatment plant and would be serviced and operated in the same manner as the Base Camp.

CR 1 – Zoning

Conformity Determination: Conforms (Exempt anyways)

Analysis:

- Activities for both applications occur partially in the Mackenzie River Special Management Zone and in a General Use Zone.
- All activities as described are permitted in these zones.

Question/Discussion:

1. Will GIS shapefiles providing the location of all activity components (roads, ice crossings, camps, water sources, drill holes, etc.) be provided to the SLUPB with applications?
2. Good that the applicant included the zoning on a key map, but should be on all maps.

CR 2 – Protection of Special Values

Values to be protected within Mackenzie River SMZ (from SLUP Zone Description):

- cultural heritage areas, recreation and subsistence use areas (gathering places, harvesting areas)
- the Mackenzie River and its shoreline
- Heritage Site as identified in "Places we Take Care Of" with protection recommended through designation as a National Historic Site, Heritage River or special consideration in land use planning.
- There are many traditional camps, cabins, recreational sites, archaeological sites, and potentially burial sites in the area.
- Important waterfowl breeding habitat, including CWS Migratory Bird Terrestrial Habitat Site
- Important Wildlife Area for Moose (GNWT)
- General harvesting area for moose, furbearers, bears, fish, some boreal woodland caribou and barren-ground caribou
- Special Harvesting Area for Fish (Land Claim)

Conformity Determination: Conforms

Criteria:

- Looking for identification of cultural heritage areas, recreation, harvesting areas, camps, cabins, traplines, burial sites through TK study and evidence of avoidance or appropriate mitigation to protect those sites
- Looking for mapping/identification of areas with special designations – Places We Take Care Of, Migratory Bird Terrestrial Habitat Site, Archaeological sites, Important Wildlife Area for Moose, Special Harvesting Area for Fish, and special consideration given to those sites

- Looking for special consideration given to protecting water and shoreline of the Mackenzie River

Analysis:

- Access, security shack, 2 heli-pads, future staging area and construction camp within SMZ
- Overall, only a minor portion of activity is within the SMZ. Efforts to identify key values and sites and mitigate impacts to those is evident.
- Water and shoreline:
 - Operations carried out in winter when river and shoreline are frozen and risk is lower
 - Grey and black water disposed of off-site
 - Following established setbacks and basic precautions for fuel storage
 - Emergency Response and Spill Contingency Plans and Waste Management Plans in place
 - Basic procedures to minimize damage to soil, vegetation and streambank
- Wildlife:
 - Mapped key wildlife habitat sites (moose, fish, caribou, migratory birds) – mostly along the river and very little concern outside that area
 - Restrict crew activity to access road, campsites, drilling lease, and seismic lines, adhere to speed limits and provide awareness training
 - Employing wildlife monitor
 - New access cut with meandering lines, create breaks in windrows to permit passage of wildlife
 - Pilots will be instructed to avoid over-flying areas of wildlife activity wherever possible and will follow GNWT guidelines for flying low
 - Food and waste management practices will be used
 - Timing of follow-up inspection to avoid calving season
 - Husky will ensure that no substances harmful to migratory birds will be placed in water or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area (EPP, p47)
 - Winter activity not expected to impact migratory bird habitat
 - Water to be sourced from Mackenzie River and other lakes as approved by DFO, based on bathymetric surveys – no key fish sites appear to be directly affected by activities
 - No recreational fishing or hunting, or recreational use of ATVs or snowmobiles
 - Water intakes will be screened
- Cultural/Traditional Use areas/Arch/Burial Sites
 - Known arch sites were identified through PWNHC and will be avoided by 150 m; one historic site was relocated.
 - Heritage Resource Impact Assessment was conducted to look for unknown sites in areas of activity. No new sites were found.
 - TK study indicated no known ceremonial sites or burial sites in area of operations, but some historical sites (camps, barrel traps and a trapline). Access route adjusted to go around these sites and avoid by 150 m. Any new sites found will not be disturbed and SLWB, AANDC and PWNHC will be contacted for instructions.

Questions/Discussion:

- Would help considerably if proponent would provide a table for this CR to identify values and mitigation measures to specifically protect these values, (or cross reference to specific sections in EPP).
- Very hard to tell how TK sites identified in study relate to areas of activity – scanned maps online are very difficult to read. Digital overlays would be more useful and user friendly showing how these sites relate to areas of activity. Assessment was based on visual comparison and proponent assurance that key sites have been avoided, but post-plan approval the proponent would be required to clearly demonstrate it.

Implementation Requirements: None

CR #3 – Project-Specific Monitoring

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:

- “sufficient to monitor effectiveness of proposed mitigation measures in protecting zone values and impacts to those values”
- Expect to see evidence of a monitoring program in place to ensure that the activity is not affecting the key values within Mackenzie River SMZ: water and shoreline of Mackenzie River; wildlife habitat (key are moose, fish, furbearers, some caribou); traditional use and harvesting areas; archaeological and cultural sites
- Requires assessment first of potential for impact. Where little to no impact is anticipated, monitoring may also be minimal.

Analysis:

- Monitoring activities described in application:
 - Have a certified waste water technician on-site to maintain and operate the portable waste treatment plant and regularly test effluent and ensure compliance with effluent standards – to be disposed of on the land greater than 100 m from nearest waterbody.
 - Security checkpoint at intersection with GNWT winter road for safety and security reasons – local access will not be restricted. Truckers and program personnel will monitor the progress of snowmobiles along the access route
 - Water withdrawals from the program area water sources will be closely monitored, documented and reported to the Aboriginal Affairs and Northern Development Canada (AANDC) Land and Water Inspector(s).
 - Husky will employ watchmen, who will be trained to identify and respond to spills and leaks, to provide security at the staging area (if and when required) to monitor the fuel storage on a regular basis.
 - Drip trays will be monitored and replaced as necessary
 - The traditional knowledge and the employment of local monitors will be used to assist the management and operations team in avoiding areas of traditional land use and historical significance.
 - Post development monitoring for re-vegetation success.

- The access, wellsites, and campsites will be monitored for melting permafrost from solar exposure and rutting in the unlikely event of warming conditions.
- Wildlife/environmental monitors will be used throughout the exploration program operations. Wildlife sightings will be communicated to program personnel and will be reported to the wildlife monitors. The wildlife/environmental monitor will be expected to observe and document wildlife and impacts thereon and to ensure implementation of environmental protection measures. The monitor will be expected keep a wildlife log and will be instructed to collect data on observations such as: species type, date, time, location, and animal activity.
- Traditional use/Cultural sites/Archaeological Sites:
 - A Heritage assessment was completed and one site relocated to avoid impacts;
 - Routing was adjusted to avoid sites identified in TK study by 150 m;
 - If a suspected site is discovered, the crew will not disturb the site and will contact the authorities for direction.
 - Stated intent that wildlife/environmental monitor will also assist the crew in avoiding areas of traditional land use and historical significance
 - Combined, these lower the risk to these sites and provide sufficient monitoring for the limited potential of impact.
- Wildlife
 - Winter season, frozen conditions and mitigation measures employed will lower the risk to many species of wildlife; area within the SMZ most important for moose, waterfowl and fish
 - Presence of a wildlife monitor is sufficient to monitor for direct impacts to these species from activities
 - Monitoring of use of access by local users can provide information to resource managers
- Water and Shoreline
 - Frozen conditions and no direct input of waste into the water means little risk
 - Monitoring for permafrost degradation, revegetation success and water withdrawal amounts should provide sufficient monitoring given potential for impacts

Questions/Discussion:

- Would be helpful to specifically describe monitoring activities for each of the values in the zone, or explanation of why broader monitoring may not be required – specifically address this requirement. Approach here was adhoc and fragmented (searched EPP for “monitor” to identify all monitoring related activities).
- No discussion of monitoring reporting; can be handled in Implementation requirements

Implementation Requirements:

- Reports of monitoring results must be distributed as per Cr #3 (2)

CR #4 – Community Engagement and Traditional Knowledge

Conformity Determination: Conforms

Criteria:

- Looking for evidence of consultations with affected communities (land corps, band, RRC, public) on activities, concerns and TK
- In the future, will be looking for specific discussion on CRs that rely on community input to be fulfilled
- Looking for demonstration of how this information was considered and used in project design

Analysis:

- Evidence of community engagement and responses with all affected communities
- Extensive TK study completed early enough to incorporate info into route selection
- Assurances and some evidence of how that information was incorporated into the design

Questions/Discussion:

- Would be easier to have a table included that identified key concerns raised and how they were addressed – would help to demonstrate how this CR is met, especially if there were a large number of concerns raised (does not appear to be the case here)

Implementation Requirements: None

CR #5 – Community Benefits

Conformity Determination: Conforms

Criteria:

- Looking for a summary of community benefits or public interest benefits in the application
- ABAs or an INAC Benefits Agreement would fulfill this CR where they are required

Analysis:

- Access and benefits agreements were signed for both parcels
- Table 7-5 in the EPP identifies potential local employment opportunities for the proposed work
- EPP includes intent to maximize use of local labour and services from the Sahtu region and giving preference to beneficiary companies as per the Benefits Agreement.

Questions/Discussion:

- Didn't see anything about the INAC Benefits Plan – how does this tie in, or does the Benefits Agreement signed with the District meet that requirement as well?
- For applications on Crown land where Benefits Agreements are not required, I would look for a fuller description of how the communities might benefit from the activity, especially given that the employment section only identifies potential employment and not a guarantee.

Implementation Requirements: None

CR #6 – Community Land Use Monitors

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:

- Looking for intent to use a community monitor, evidence of community input into values to be monitored, description of appropriate role in locating values and monitoring impacts to them in the field
- Reporting requirements can be handled through terms and conditions in authorizations

Analysis:

- The traditional knowledge and the employment of local monitors will be used to assist the management and operations team in avoiding areas of traditional land use and historical significance.
- Wildlife/environmental monitors will be used throughout the exploration program operations. The wildlife/environmental monitor will be expected to observe and document wildlife and impacts thereon and to ensure implementation of environmental protection measures. The monitor will be expected keep a wildlife log and will be instructed to collect data on observations such as: species type, date, time, location, and animal activity.
- TK study and consultation identified specific concerns, areas to avoid and timing issues – addresses need for community input into monitoring issues, though the link could be stronger

Questions/Discussion:

- Would like to see a stronger statement on joint development of a monitoring program post-plan approval. Making assumptions for discussion purposes.
- Some elements of this CR describe the role and reporting relationships of the monitor. While mention of this could be made in the EPP, these elements are better addressed in the monitor's contract or job description, not as a condition of authorization. Perhaps the CR should be limited to the requirement to hire the monitor and report on the results. If agreed, the remainder of the CR could be moved to context.

Implementation Requirements:

- Reporting requirements from this CR need to be included as a condition of authorization.

CR #7 – Archaeological Sites, Historic Sites and Burial Sites

Conformity Determination: Conforms

Criteria:

- Looking for identification of sites through both PWNHC and community engagement/TK studies and evidence that such sites are being avoided by 150m, and 500m for burial sites
- If there is high potential for undocumented sites, evidence that a heritage resource assessment is carried out

Analysis:

- No burial sites identified through PWNHC or TK study
- Statement that all sites would be avoided by 150 m
- Heritage Resource Assessment was carried out

Questions/Discussion: None

Implementation Requirements: None

CR #8 – Watershed Management

Conformity Determination: Conforms

Criteria:

- Need to assess potential impacts to water quality, quantity and rate of flow within SMZs or CZs
- Nothing significant would be allowed

Analysis:

- Small portion of operations in SMZ, closest CZ is 40 km from activities
- Operations carried out in winter when river and shoreline are frozen and risk is lower
- Grey and black water disposed of off-site
- Following established setbacks and basic precautions for fuel storage
- Emergency Response and Spill Contingency Plans and Waste Management Plans in place
- Tracking and reporting of water withdrawals from water bodies
- Low risk to water in general from proposed activities

Questions/Discussion: None

Implementation Requirements: None

CR #9 - Drinking Water

Conformity Determination: Conforms

Criteria:

- Need to assess potential impacts to downstream drinking water sources based on Map 6 of the Plan
- Nothing significant would be allowed
- Where there is significant risk, need to see specific evidence of discussions with the community on the topic, and either a commitment to do baseline water quality collection and regular monitoring, or it would have to be a condition of authorization to require those things.

Analysis:

- Norman Wells and Fort Good Hope source catchments are downstream of activities

- Operations carried out in winter when river and shoreline are frozen and risk is lower
- For reasons above, low risk to water in general from proposed activities

Questions/Discussion: None

Implementation Requirements: None

CR #10 – Wildlife

Conformity Determination: Conforms, subject to conditions below

Criteria:

- Looking for a statement that data was requested from appropriate organizations and discussed with community RRCs in community engagement and TK study
- Looking for evidence that key wildlife impacts are being mitigated, and particular attention to be given to special harvesting areas – if uncertain, additional measures can be imposed as conditions of authorizations where appropriate
- Look for special consideration for protection of barren-ground caribou if in applicable area
- Look for adherence or commitment to horizontal setbacks and minimum flight altitudes for relevant species, or implement through conditions of authorizations

Analysis:

- Data and Species of Focus:
 - Data sought from SLUPB, AANDC, Ducks Unlimited, CWS, GNWT-ENR (Wildlife Division); discussions held with ENR-Wildlife to determine species of focus
 - Data or discussions on species of interest were not indicated to have occurred with SRRB or RRCs; TK study conducted by RRC helps to identify this but a more direct discussion would be better
 - Focus on Species at Risk
- Mitigation of Impacts to Wildlife
 - Examined range of impacts on wildlife, both short-term and cumulative and put in place mitigation measures to address most issues, including operating season, use of monitors, hunting and fishing restrictions, etc.
 - Identified that access may contribute to long-term cumulative effects for boreal woodland caribou – using minimal disturbance methods to reduce impacts as much as possible – may require additional measures as imposed by wildlife managers
 - Special Harvesting Area for fish, and community harvesting areas were documented through mapping and TK study; potential impacts to these areas were generally addressed, though no evidence of specific assessment of activity against the Special Harvesting Area
- Barren-Ground Caribou – Section not applicable in this geographic area
- Setbacks and Minimum Flight Altitudes
 - Given season of work, restrictions are only in place for dens of black bears, grizzly bears and wolverines (800 m horizontal, 300 m min altitude); raptor nest

sites (1000 m, 650 m alt); and waterfowl concentrations (650 m alt, no horizontal setback).

- Wildlife monitors will be instructed to look for dens and key wildlife
- No raptor nest sites identified within the area according to maps
- Commitment to avoid flying over areas of wildlife activity and pilots will be instructed to not fly below 305 m (addresses altitude restrictions for dens; if waterfowl concentration identified, the area would have to be avoided or minimum altitude of 650 m used)

Questions/Discussion:

- Not all wildlife listed necessarily occur in the area of activity – maybe add “where geographically appropriate”?
- Does the requirement to follow approved wildlife management plans add value here? That is required anyway and compliance against these is best checked by the organizations/departments that write the plans (e.g. ENR, SRRB).
- Should we be updating Map 7 to show new habitat range for boreal woodland caribou and perhaps referencing the Boreal Caribou Recovery Strategy?

Implementation Requirements:

- Regulators to include any other terms and condition recommended by wildlife managers, especially related to mitigating impacts from increased access
- Include requirement to either avoid any waterfowl concentrations or observe a minimum flight altitude of 650 m

CR #11 – Species Introductions

Conformity Determination: Conforms, subject to implementation requirements below

Criteria:

- Looking for basic precautions to be taken to avoid introduction of species
- Where revegetation is required, that seed mixes are approved by the GNWT, ENR

Analysis:

- Will prevent spread of noxious species by cleaning vehicles
- Post development monitoring for revegetation success
- If ground disturbance does occur, it will be re-contoured and reseeded with an approved mix immediately and inspected within one full growing season

Questions/Discussion:

- Current process seems to be to have seed mixes approved by AANDC inspector. Should ENR also have approval role as per this CR or does the CR need to change?

Implementation Requirements:

- Should require approval of any seed mixes by ENR to avoid introduction of non-native vegetation

CR #12 – Sensitive Species and Features

Conformity Determination: Conforms

Criteria:

- Looking for evidence that information was sought on the location of plants, hot and warm springs, mineral licks, amphibian sightings, and ice patches from appropriate departments and adherence to setbacks other requirements as appropriate

Analysis:

- No evidence of information requested, but based on current information, no sites are in the vicinity of the operation either

Questions/Discussion:

- Would prefer to see a statement that information was requested, an overlay completed and nothing found to be in the area.

Implementation Requirements:

- None for this example, but for other cases where these sites are more prevalent, the requirement to report new discoveries should be included as a condition of authorization.

CR #13 – Closure and Reclamation

Conformity Determination: Part 1 Conforms, subject to conditions below. Part 2 does not conform.

Criteria:

- Part 1: Security to be calculated to cover full cost of reclamation and required by SLWB as a condition of authorization
- Part 2: Expect to see discussion of long term use of the area with community orgs and government bodies to determine an appropriate reclamation goal, and a draft closure and reclamation plan to be included to achieve that goal.
 - Generally, the goal should be for full reclamation to the extent possible/reasonable.
 - Where a decision is made to not do that in order to accommodate further use, then that should be made explicit.
 - The Closure and Reclamation Plan does not have to be a separate document but sufficient to describe the intended activities, especially at early stages of land use.

Analysis:

- No evidence of discussions to determine an appropriate reclamation goal
- No distinct closure and reclamation plan, but a brief description indicating general clean-up and removal of structures and waste.
- Access will be cleaned up but left for local use. Is that the best idea given that access will contribute to long-term cumulative effects?
- This would not pass conformity post plan approval.

Questions/Discussion:

- Closure and reclamation doesn't seem to have been given much consideration in the application at all. While the activity seems to have been designed to minimize impacts wherever possible, which would make closure and reclamation simpler, there is virtually no mention of it in the application. This would fail conformity due to lack of information more than lack of effort. Discussion of a reclamation goal would likely have tackled the question of whether there should be ongoing access after the project is completed. Given the potential for cumulative effects, this is a relatively important question.
- Had the reclamation description stated instead a plan to reclaim and close off the access, this may have been sufficient to pass (meeting at least the first part of the requirement to return it to a state consistent with surrounding area). Given that the decision was made to keep the access open, this implies a decision other than full reclamation, which should be supported by some rationale as to how that decision was arrived at.
- Should the CR be modified to make this requirement clearer?

Implementation Requirements:

- Security sufficient to cover the full cost of reclamation to be required and collected by the SLWB as a condition of authorization.
- To pass conformity on Part 2, the applicant would need to submit evidence of discussions/request from community and resource managers to maintain the access.

CR #14 - Permafrost

Conformity Determination: Conforms

Criteria:

- Looking for consideration of impacts to permafrost and mitigation measures in place to limit impacts to permafrost

Analysis:

- Discussion of permafrost in TK study to determine location and thickness – assume this was used in project design
- Permafrost is extensive discontinuous
- Impacts to permafrost identified as possible cumulative effects concern for hydrology – mitigation measures include working during frozen conditions and using mulch to provide a protective layer for ground cover.
- No topsoil disturbance will be necessary to conduct the activities, which will reduce the potential for impacts on permafrost.
- Use of existing disturbed areas wherever possible to limit new clearing
- Use of protective shoes or pipe on cutting edges to elevate the blade and leave protective snow cover

Questions/Discussion: None

Implementation Requirements: None

CR #15 – Climate Change

- Not assessed as CR wording still undetermined

CRs #16-20

- Not applicable