

Draft Directive 023: Oil Sands Project Applications (released February 2024) What We Heard – And Our Response



Thank you for your interest in this draft of *Directive 023: Oil Sands Project Applications*. We recognize and appreciate the time it takes to review the draft directive and to provide thoughtful insights.

The creation of this directive has included more than a decade of input from Indigenous communities and Albertans through engagement events, letters, meetings, and public feedback periods. We can't take back the past, but our journey towards truth and reconciliation calls on us to recognize our shortcomings and work with Indigenous communities to build relationships based on mutual understanding and trust. That is why the AER is looking at new ways to work with these communities to improve our relationships and find solutions that respect our cultural differences. All voices matter, and Indigenous peoples want to hear theirs reflected in our decisions.

In fall 2022, the AER received 235 feedback submissions on the 2022 version of the draft directive. While all feedback was considered, in some cases, the suggestions were not within the AER's authority to implement as part of the current review. Therefore, this input was shared with the appropriate AER groups and kept for future consideration. For example, the AER is not exploring changes to participant involvement requirements contained in section 4 of *Directive 023* at this time. Your feedback is valued by the AER, has been documented, and may inform future regulatory development in this area.

Comments on grammar, punctuation, and cross referencing have not been summarized, but changes were made where needed. What follows is a summary of the issues raised and our responses. A list of the respondents is provided at the end of this document.

Stakeholder Feedback – Issue	AER Response
<p>1. General Comments</p> <p>The AER is responsible for the administration of specified enactments and should revise <i>Directive 023</i> to acknowledge the link between <i>OSCA</i> and specified enactments (e.g., <i>EPEA</i>, <i>Water Act</i>, <i>Public Lands Act</i>). <i>Directive 023</i> should be rewritten and expanded to consider cultural impacts to Aboriginal and treaty rights, traditional land use, cumulative effects, environmental requirements, Indigenous community participation, consultation, and engagement and include a single integrated application process including additional requirements to cover other requirements within the specified enactments. Applications should be collecting the foregoing information, as well as ensuring the adequacy of consultation related to the specified enactments and consultation on whether an EIA is required for discretionary projects, with consideration for concerns raised by Indigenous communities.</p> <p>Recent case law demonstrates that the AER has broad public interest mandate on all constitutional issues.</p> <p>Development of guidelines to give AER decision makers direction on their constitutional decision-making duties and powers regarding treaty and Aboriginal (s.35) rights and their own consultation or engagement duties with Indigenous communities on applications made under <i>Directive 023</i>.</p>	<p>A complete re-write of <i>Directive 023</i> is out of scope of the current project. However, changes have been made to reflect the AER’s expanded mandate.</p> <p>The intent of the current <i>Directive 023</i> project is to update the requirements to recognize the AER’s expanded mandate and authority over specified enactments by, where possible, removing requirements where socioeconomic and environmental risks are addressed under the scope of the <i>Environmental Protection and Enhancement Act (EPEA)</i>, the <i>Public Lands Act (PLA)</i>, and the <i>Water Act</i> specified enactments.</p> <p>Connections between different environmental legislation and EIA processes as well as application processes have been reflected in web content.</p> <p>The directive will not be addressing fully integrated approvals under the Integrated Decision Approach (IDA). Details regarding lifecycle approvals have been added to the directive.</p> <p>When making a decision on an application, the AER considers impact to Indigenous communities, including their rights, where it is provided with information regarding these potential impacts in the application and hearing processes.</p> <p>The AER also takes into consideration advice it receives from the Aboriginal Consultation Office (ACO) regarding the adequacy of Crown consultation and any advice the ACO may provide regarding mitigation of impacts. The AER does not have authority over Crown consultation regarding the constitutionally protected rights of Aboriginal peoples.</p> <p>Cumulative effects are reviewed and considered when the AER receives information on that topic.</p> <p>The AER does not have authority to change the factors considered for requiring an environmental impact assessment (EIA) as part of <i>Directive 023</i>.</p>

Stakeholder Feedback – Issue	AER Response
<p><i>Directive 023</i> should allow a life cycle approval process, especially for existing projects/approvals so that previously provided information submitted as part of an <i>EPEA</i> integrated application or EIA does not have to be resubmitted.</p> <p>The lifecycle applications should not be required to provide conceptual footprints and drainage areas if this detail has been already outlined within an Integrated Application/EIA.</p>	<p>Details regarding life-cycle approvals have been added to the directive.</p> <p>The directive will not be addressing fully integrated approvals under the Integrated Decision Approach (IDA) as changes to the <i>EPEA</i> application process cannot be made, so the directive needs to remain focused on the requirements under <i>OSCA</i>.</p>
<p>2. Introduction (Section 1)</p>	
<p>There is a need to update the Introduction section, socioeconomic requirements, and environmental requirements. These sections should reflect current AER mandate including the responsibilities in the Environmental Impact Assessment review process and delegated authority under the various specified enactments such as the <i>Environmental Protection and Enhancement Act</i>, <i>Water Act</i>, and <i>Public Lands Act</i>.</p>	<p>Requested changes have been made.</p>
<p>The scaling of requirements according to the scale of the oil sands project is not carried forward in the directive, except in section 6.5 where the scaling of the environmental information collection methods are to reflect the scale of the project.</p>	<p>Additional clarity has been provided in the “Purpose of This Directive” section regarding scalability of requirements to the scale of the proposed project.</p> <p>Additional clarity on scalability has been added to the Project Description Requirements, Environmental Requirements, Amendment Applications, and Socioeconomic and Environmental Requirements for Small-Scale In Situ Projects.</p>
<p>There is uncertainty regarding how an applicant’s professional judgement will be deemed adequate by the AER. It is also unclear what “professional judgement” is deemed necessary and why it is referenced in this requirement. Revise so that applicants are expected to provide the level of detail necessary to support the application commensurate with the scale of the project proposed.</p> <p>Provide general guidance on the level of detail expected when applicants are using professional judgement to determine the level detail necessary to support the application. Provide additional clarification that as much detail as possible should be provided to minimize supplemental information requests.</p>	<p>Language has been updated as suggested.</p>

Stakeholder Feedback – Issue	AER Response
<p>Reference to EIAs or impact assessments outside of the scope of the directive has potential to create confusion with respect to what is required by the directive for environmental requirements. In addition, the comments related to EIAs and impact assessments do not recognize other environmental assessments that may be required under <i>EPEA</i>.</p>	<p>Specific reference to EIAs must remain because they are a critical source of information for the AER about impacts of proposed oil sands projects subject to them. These references also ensure that applicants are aware that the EIA process is separate from <i>Directive 023</i> submissions and that information included must be consistent with an EIA, if required.</p> <p>Reference to other impact assessments have been removed from the “Oil Sands Project Preapplication Considerations” section.</p>
<p>3. Oil Sands Project Application Process (Section 2 2013 Draft)/Oil Sands Project Preapplication Considerations (Section 2 2022 Draft)</p>	
<p>Clarify what is meant by applicants being responsible for ensuring applications are consistent with associated EIAs or EAs.</p>	<p>Connections between different legislation in relation to <i>OSCA</i> applications have been identified throughout the directive. The AER’s intent is for any information submitted within the <i>Directive 023</i> application to be in alignment with submissions under other legislation.</p>
<p>It is unclear when the AER would close an application instead of asking for additional information.</p>	<p>If the AER deems an application to be grossly incomplete, the application will be returned to the applicant prior to registering with a list of the most significant deficiencies. Once an application is registered, the AER will make a supplemental information request (SIR) for additional information as needed.</p>
<p>Incomplete applications are not providing sufficient and appropriate information for Indigenous communities to evaluate projects. Revise the directive to add in a component to ensure concerns raised from Indigenous communities are addressed as part of a complete application.</p>	<p>The “Stakeholder Involvement” section defines expectations and outlines potential consequences of deficient stakeholder involvement activities. This section also outlines the requirements of the application package information.</p> <p>Wording in the “Purpose of This Directive” section has been adjusted to indicate that as much detail as possible should be provided at the time of application.</p>
<p><i>Directive 023</i> should not reference federal impact assessment processes as it is a separate process with different requirements.</p>	<p>Reference that an EIA report may be part of a joint review process with federal regulators has been removed.</p>
<p>The directive should mention environmental requirements can be tailored to the scope of the project.</p>	<p>The need to scale environmental information depending on the proposed <i>Directive 023</i> activity has been added.</p>
<p>It is uncertain how the appropriate scale for technical analysis of figures in PDFs will be determined. Revise wording so that all figures submitted in PDF documents must have sufficient resolution to ensure legibility for reviewers.</p>	<p>Language has been updated as suggested.</p>

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<p>The requirement for spatial information in shapefiles creates unnecessary burden and is unclear if all maps will need to be submitted as shapefiles (e.g., currently updated TMPs do not require spatial GIS data to be included). There is no clear connection to how the data will be used, and removal of this requirement is suggested.</p>	<p>Shapefiles are still required as they provide necessary information for application review. Applicants are encouraged to discuss shapefile submissions with the AER if they are unclear on the requirements.</p>
<p>Revise the sentence to read, “No clearing or site preparation activities for in situ oil sands projects may occur until the applicable <i>Directive 056</i> licence(s) has been obtained.” The original wording, could be interpreted as all <i>Directive 056</i> licenses for a project are required up front prior to an activity proceeding.</p>	<p>Language has been updated as suggested.</p>
<p><i>Directive 056</i> requirements are redundant and should be removed. Requirements should be revised to include only clarifications on <i>Directive 023</i> applicability.</p>	<p>Reference to <i>Directive 056</i> processes related to well, pipeline, and facility licences provides process clarity and a full picture of the AER’s regulatory framework for stakeholders.</p>
<p><i>Directive 023</i> should provide additional clarity on integrated applications with related project components versus separate facilities being submitted as a single integrated application.</p>	<p>Several in situ projects have proposed, or currently contain, multiple central processing facilities (CPFs) that operate independent of one another under a single <i>Directive 023</i> approval. When this situation occurs, the AER encourages applicants to apply under a single application for any related activities that may impact any of the CPFs contained within that approval, and the AER expects requirements to be met for each CPF individually. The requirements for sulphur recovery are outside the scope of <i>Directive 023</i> and can be found in <i>Interim Directive (ID) 2001-03: Sulphur Recovery Guidelines for the Province of Alberta</i>.</p>
<p>It is unclear why wells, pipelines, and surface facilities associated with in situ oil sands projects must also be licensed in accordance with <i>Directive 056</i> and what the information requirements are for each of these. Consider consolidating all project approval requirements in one application even if multiple approvals are required. At a minimum, include <i>EPEA, EIA Terms of Reference (ToR)</i> requirements and assess impacts to Treaty and Aboriginal (s. 35) rights and the wellbeing of local communities.</p>	<p>A <i>Directive 023</i> application will contain the majority of the information regarding the proposed project and how it will recover oil sands resources. As the projects develop over time, the specific locations of infrastructure may change. The <i>Directive 056</i> applications will provide much more detail about equipment specifics and where equipment is located on the landscape. The AER cannot require an applicant to combine both because the location specifics may not be available at the time of the <i>Directive 023</i> application. We encourage stakeholders to contact the applicant directly and the applicant to work with stakeholders so concerns are known at the project stage under <i>OSCA</i>.</p>

Stakeholder Feedback – Issue	AER Response
<p>The application review process described and depicted in the draft directive does not reflect current practice of the review process, specifically the public notice of application (PNOA) process and the statements of concern (SOCs) processes and should be revised.</p>	<p>This subsection and process flow has been removed, and details regarding application processes can be found on our website.</p>
<p><i>Directive 071</i> requirements regarding emergency response plans are redundant and should be removed.</p>	<p>Requirements related to <i>Directive 071 Emergency Response Plans</i> have been removed from <i>Directive 023</i> to prevent duplication. <i>Directive 071</i> requirements still apply, however, under section 9 of the <i>OSCR</i> and part 8 of the <i>OGCR</i>.</p>
<p><i>Directive 023</i> should continue to require emergency response plans required under <i>Directive 071</i> so that Indigenous communities can adequately address risk and ensure applicants take reasonable measures to minimize risks. Indigenous communities should be provided with opportunity to review ERPs as part of overall application review.</p>	<p>Changes to <i>Directive 071</i> requirements are out of scope for this <i>Directive 023</i> project. Duplicative requirements have been removed.</p> <p>We may request an emergency response plan under section 9 of the <i>OSCR</i> and part 8 of the <i>OGCR</i>. The plan would only be for the handling of gas having more than 10 moles per kilomole of H₂S, in the event of an uncontrolled emission of contaminants to the air, water, or land, or in the event of a fire.</p> <p><i>Directive 071</i> is currently undergoing revisions, and this feedback has been shared with that project team.</p>
<p>4. General Application Requirements (Section 3)</p>	
<p>The level of detail required within the “General Application Requirements” section does not consider or discuss scaling of project scope. There should be clarity on the level of detail for requirements based on project scope and scale.</p>	<p>Additional clarity has been provided in the “Purpose of this Directive” section regarding scalability of requirements to the scale of the proposed project.</p> <p>Additional clarity on scalability has been added to the Project Description Requirements, Environmental Requirements, Amendment Applications and Socioeconomic and Environmental Requirements for Small-Scale In Situ Projects sections.</p>

Stakeholder Feedback – Issue	AER Response
<p><i>Directive 023</i> should require project location and shapefiles relative to First Nation communities, reserve lands, Métis settlements, and registered traplines so that Indigenous communities can quickly assess the proposed location of the project in relation to key community activity/use areas.</p> <p>In addition to the regional maps listed, <i>Directive 023</i> should add on a regional map that shows the following, to allow Indigenous communities to better assess impacts of the proposed projects:</p> <ul style="list-style-type: none"> • First Nation reserves • Métis settlements • registered traplines • actively used trappers’ cabins • Indigenous traditional territories 	<p>Some of the requested information is protected knowledge and the data are not accessible to the applicants or the AER (e.g., registered traplines). The AER encourages applicants to use information on First Nation reserves, Métis settlements, and registered traplines to the extent they are publicly available.</p>
<p><i>Directive 023</i> should be updated to include the requirement to provide information on the transportation of production inputs as well as outputs (e.g., diluent).</p>	<p>The requirements have been updated.</p>
<p>5. Stakeholder/Public Involvement (Section 4)</p>	
<p>The stakeholder involvement requirements described are out of date. It should be revised to reflect current public involvement practices and recognize other potential applications that may be submitted jointly under specified enactments such as <i>EPEA</i>, <i>Water Act</i>, and <i>Public Lands Act</i>.</p>	<p>The AER acknowledges receipt of this feedback, and it will be retained for the development of future public involvement requirements and processes. The current <i>Directive 023</i> requirements will continue to apply.</p>
<p>There is uncertainty regarding the AER’s expectations for carrying out a stakeholder involvement program for amendment applications and should be revised to provide clarity such as how AER will determine whether a bona fide/meaningful/reasonable effort was made and scalability of requirements.</p>	<p>The AER acknowledges receipt of this feedback, and it will be retained for the development of future public involvement requirements and processes. The current <i>Directive 023</i> requirements will continue to apply.</p> <p>Wording from section 10 of the 2013 draft of <i>Directive 023</i> has been modified to reflect updated application requirements for amendment applications (see Amendment Applications section). No other changes have been made to the stakeholder involvement section.</p>

Stakeholder Feedback – Issue	AER Response
<p>There is no section outlining the process for the involvement of First Nations, aside from the stakeholder involvement section, which indicates that “generally ... local First Nations and Métis groups” are parties that should be included in stakeholder involvement following their preferred community specific consultation policies and procedures.</p> <p>Stakeholder involvement programs should specify First Nations and Métis as key stakeholders.</p>	<p>The AER acknowledges receipt of this feedback, and it will be retained for the development of future public involvement requirements and processes. The current <i>Directive 023</i> requirements will continue to apply.</p>
<p>Notification of application and consultation with Indigenous communities on public review period should be included in <i>Directive 023</i>. Revise the directive to include a requirement to notify Indigenous communities potentially affected by the project and consult them on the length of the public review period for the application.</p>	<p>The stakeholder involvement section defines expectations and outlines potential consequences of deficient stakeholder involvement activities. This section also outlines the requirements of the application package information.</p> <p>Upon receipt of an application, the public notice of application is posted to the website. The timelines are part of the public notice posting. In circumstances where a hearing is not held, once a decision on an application has been made, the decision is posted to the AER’s website for public viewing, and SOC filers will receive a copy of the decision. There is information on the notice of decision on the AER’s website.</p> <p>Crown consultation with First Nations and Metis is the responsibility of the Government of Alberta and not the AER. The ACO provides information to the AER on its processes, status/adequacy of consultation, and possible mitigations.</p> <p>The AER also takes into consideration advice it receives from the Aboriginal Consultation Office (ACO) regarding the adequacy of Crown consultation and any advice ACO may provide regarding mitigation of impacts. The AER does not have authority over Crown consultation regarding the constitutionally protected rights of Aboriginal peoples.</p> <p>Details regarding application processes can be found on our website.</p>
<p><i>Directive 023</i> should be revised to reflect the purpose of engagement as not only providing information on the proposed project but to demonstrate to affected parties that best practices are being employed to minimize project impacts and to incorporate input and requests from affected parties.</p>	<p>The AER acknowledges receipt of this feedback, and it will be retained for the development of future public involvement requirements and processes. The current <i>Directive 023</i> requirements will continue to apply.</p>

Stakeholder Feedback – Issue	AER Response
<p>Add details to stakeholder involvement requirements that the AER, at its discretion, may contact affected parties to obtain their views on the level of adequacy of consultation that has occurred.</p>	<p>The AER acknowledges receipt of this feedback, and it will be retained for the development of future public involvement requirements and processes. The current <i>Directive 023</i> requirements will continue to apply.</p> <p>Crown consultation with First Nations and Métis is the responsibility of the Government of Alberta and not the AER. The ACO provides information to the AER on its processes, status/adequacy of consultation, and possible mitigations.</p>
<p>Content of the information package provided to all parties as part of the stakeholder involvement program should be as comprehensive as possible to provide sufficient information and enable effective consultation with affected parties. Add requirements to include how the project is employing best practices and continuous improvement, effects on land use and habitat, air quality, groundwater, water bodies, noise, light pollution, and potential cultural effects and rights impacts.</p>	<p>The AER acknowledges receipt of this feedback, and it will be retained for the development of future public involvement requirements and processes. The current <i>Directive 023</i> requirements will continue to apply.</p>
<p>6. Socioeconomic Requirements (Section 5)</p>	
<p>The title for the socioeconomic requirements appears to be missing wording that is necessary to ensure that it is clear that the section pertains to projects that do not require an EIA.</p>	<p>The title has been revised to reflect more recent revisions that apply to small-scale in situ projects. The title for the section is “Socioeconomic and Environmental Requirements for Small-Scale In Situ Projects.”</p>
<p>Socioeconomic requirements are redundant with requirements under the <i>EPEA</i> environmental assessment (EA) process and should be removed. For projects that do not require an EA process, a threshold for socioeconomic assessment and the associated requirements for amendment applications should be identified.</p>	<p>Redundant socioeconomic requirements have been removed. Socioeconomic categorization criteria have been removed from the amendment section of the directive.</p> <p>Socioeconomic requirements have been adjusted to apply to new small-scale in situ schemes and amendment applications where new well pads are added to an existing small-scale in situ project.</p>

Stakeholder Feedback – Issue	AER Response
<p>The requirement for socioeconomic information for non-EIA projects does not appear to align with the purpose of the directive for filing applications with the AER under <i>OSCA</i> sections 10 and 11 and should be removed.</p>	<p>Section 3 of the <i>Responsible Energy Development Act General Regulation</i> states, “For the purposes of section 15 of the Act, where the Regulator is to consider an application or to conduct a regulatory appeal, reconsideration or inquiry in respect of an energy resource activity under an energy resource enactment, the Regulator shall consider (a) the social and economic effects of the energy resource activity.”</p> <p>Under <i>OSCA</i>, the AER must, “provide for the economic, orderly, efficient and responsible development in the public interest of the oil and gas resources of Alberta”; therefore, socioeconomic requirements will remain part of the directive.</p> <p>Socioeconomic requirements in <i>Directive 023</i> apply to small-scale in situ projects. Proponents must address the spatial and temporal context of the project to evaluate the extent of anticipated socioeconomic impacts.</p>
<p>The socioeconomic section does not include an explicit statement that the requirements do not need to be met for projects that are required to prepare an EIA under <i>EPEA</i>.</p>	<p>Socioeconomic requirements have been adjusted to apply to new small-scale in situ schemes and amendment applications where new well pads are added to an existing small-scale in situ project.</p>
<p>The socioeconomic requirements are unduly prescriptive. There is uncertainty regarding the level of detail required for socioeconomic in relation to amendments. Clarify requirements for amendment applications, including scalability.</p>	<p>Socioeconomic requirements have been adjusted to apply to new small-scale in situ schemes and amendment applications where new well pads are added to an existing small-scale in situ project.</p> <p>Section 3 REDA General regulation states, “For the purposes of section 15 of the Act, where the Regulator is to consider an application or to conduct a regulatory appeal, reconsideration or inquiry in respect of an energy resource activity under an energy resource enactment, the Regulator shall consider (a) the social and economic effects of the energy resource activity.”</p> <p>Under <i>OSCA</i>, the AER must, “provide for the economic, orderly, efficient and responsible development in the public interest of the oil and gas resources of Alberta”, therefore socioeconomic requirements will remain part of the directive. Socioeconomic requirements in <i>Directive 023</i> only apply to small-scale in situ projects. Proponents must address the spatial and temporal context of the project to evaluate the extent of anticipated socioeconomic impacts.</p>

Stakeholder Feedback – Issue	AER Response
<p>The language used in the socioeconomic requirement presupposes that the effects of the project on socioeconomic considerations will be negative. Projects will have positive socioeconomic outcomes as well.</p>	<p>Socioeconomic requirements for Small-Scale In Situ Projects section requires applicants to discuss negative and residual effects of the project.</p>
<p>The socioeconomic requirement for a summary of anticipated residual effects is a requirement typical of an EIA but not commensurate with the scale of requirement that should apply where an EIA is not required.</p>	<p>Socioeconomic requirements have been adjusted to apply to new small-scale in situ schemes and amendment applications where new well pads are added to an existing small-scale in situ project.</p>
<p>The inclusion of “and quality” introduces subjectivity into the housing aspect of the socioeconomic requirements.</p>	<p>The term quality has been removed in reference to housing information.</p>
<p>Inclusion of “as well as other sociocultural effects” is unclear and unduly broadens the scope of the Indigenous communities’ effects under the socioeconomic project effects requirement.</p>	<p>A definition of sociocultural has been added.</p>
<p>The description of existing socioeconomic conditions does not include Indigenous communities. Revise to include additional requirements related to baseline conditions of Indigenous communities.</p>	<p>Details regarding the assessment area including local and regional communities and Indigenous communities has been added.</p>
<p>It is an improvement that Indigenous communities have been added where applicants are required to describe project effects rather than embedded under land use, and that the directive now specifies that consideration of impacts to Indigenous communities is required in applications when an EIA is not required.</p> <p>The directive should provide additional detail to proponents as to what information is required about the effects on local communities, Indigenous communities (First Nations and Métis groups).</p>	<p>The “Socioeconomic and Environmental Requirements for Small-Scale In Situ Projects” section requires applicants to consider the effects on Indigenous communities, changes to social and cultural elements, including traditional land use, culturally and traditionally important wildlife, plants, and access to sites containing them.</p> <p>A definition has been added for Indigenous communities, which are recognized as “First Nations and Métis communities.”</p>
<p>Cultural impacts need to be considered in determining the impacts of a project either by itself or in combination with other projects as a factor in making any public interest decision on a project. Provide guidance to applicants on how to address this issue in a separate cultural requirements section.</p>	<p>The “Socioeconomic and Environmental Requirements for Small-Scale In Situ Projects” section requires applicants to consider the effects on Indigenous communities, changes to social and cultural elements, including traditional land use, culturally and traditionally important wildlife, plants, and access to sites containing them.</p>

Stakeholder Feedback – Issue	AER Response
7. Environmental Requirements – General (Section 6)	
<p>Environmental requirements are redundant with requirements under <i>EPEA</i>. The AER should remove requirements that are required under <i>EPEA</i> applications with or without an EIA and maintain limited requirements and remove redundancy with <i>EPEA</i>.</p> <p>Applications that do not require an <i>EPEA</i> application need to reflect the scope of the activity. When an <i>EPEA</i> application and a <i>Directive 023</i> application are both required, <i>Directive 023</i> requirements are redundant with requirements in the <i>EPEA Guide to Content for Energy Project Applications</i> for EIAs and should be removed.</p>	<p>The “Environmental Requirements” section contains requirements for preparing <i>OSCA</i> applications where environmental impact is anticipated from the proposed activity. This section supports complete <i>Directive 023</i> applications to inform decisions and may reduce SIRs in the review process. Where possible, redundancies have been removed.</p>
<p>The environmental requirements should be revised to allow flexibility to use regional data for environmental characterization (desktop or field) within the assessment area instead of baseline surveys if appropriate justification is provided.</p>	<p>Regional baseline environmental data may be used depending on the scope of the proposed project, data availability, and various methods of detection (field or desktop). The directive has been updated to reflect this potential variability. Supplemental field surveys may be necessary where regional baseline environmental data is not adequate or available.</p>
<p>The terminology used in relation to assessment area and project area leads to confusion and should be clarified.</p>	<p>Clarification of “project area,” “assessment area,” and similar terms have been made.</p>
<p>The requirement to describe reporting process for jurisdictions outside of the AER is unnecessary and should be removed.</p>	<p>Reference to the reporting process for other jurisdictions has been removed.</p>
<p>Identifying the Land Use, Hydrology, Air Quality and Emissions and Noise sections as required regardless of whether an EIA is required may be misinterpreted to only apply when an EIA is required.</p>	<p>This section has been updated to clarify the types of application the environmental information is required. Reference to EIA requirements have been removed from this section.</p>
<p>While the directive delineates between requirements for projects where an EIA is required versus those where an EIA is not required, it is unclear what is intended with respect to amendment applications and is suggested that clarification on applicability of relevant requirements based on scope of the application and scalability be recognized.</p>	<p>The directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small scale in situ projects.</p>

Stakeholder Feedback – Issue	AER Response
<p>Environmental requirements in <i>Directive 023</i> continue to be redundant with those in the <i>EPEA</i>, the <i>Guide to Content for Energy Project Applications</i>, <i>EIA Terms of Reference</i>, the <i>Public Lands Act and Regulation</i>, the Master Schedule of Standards and Conditions (MSSC), the <i>Water Act</i>, the <i>Alberta Wetland Policy</i> and its directives, the <i>Oil and Gas Conservation Act</i>, and <i>Directive 056</i>.</p>	<p>The directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small-scale in situ projects.</p>
<p>The requirement under all environmental disciplines for a summary of anticipated residual effects is typical of an EIA, not an environmental assessment, and should be removed entirely or removed from each environmental discipline and summarized.</p>	<p>Wording has been updated to clarify the AER’s intent for <i>Directive 023</i> applications to summarize short- and long-term effects.</p>
<p>Indigenous Nations should be consulted to identify culturally important vegetation species and habitat, wildlife species and habitat, water bodies, and fish species and habitat for projects that do not require an EIA.</p>	<p>The inclusion of culturally important vegetation, wildlife and fisheries resources, and their habitat is embedded within each discipline. We expect that operators will consult with Indigenous communities regarding data on traditional resources for inclusion in the respective disciplines; this is in addition to consultation managed by the ACO.</p> <p>Access to Indigenous knowledge and land use plans may be classified as proprietary, and it is outside of AER’s jurisdiction to compel this information, but it can be requested.</p>
<p>As requirements pertinent to protection of land and soil resources appear limited in the “Environmental Requirements” section, it is recommended that the directive reference the 2014 <i>Environmental Protection and Enhancement Act Guide to Content for Industrial Approval Applications</i>.</p>	<p>References to <i>EPEA</i> have been added to the introductory paragraph of the environmental sections and appendices, and a direct reference to the <i>EPEA Guide to Content for Energy Project Applications</i>, which is applicable to AER-regulated activities, was added.</p>
<p><i>Directive 023</i> should ensure that companies are applying best practice mitigation measures for each effect identified (e.g., land disturbance, air emissions, noise, water use, waste generation, etc.) and should clearly communicate that expectation to companies by having a requirement for companies to discuss why their proposed mitigation measure is best practice.</p>	<p>Mitigation measures for environmental impacts are primarily addressed under specified enactments. The extent of mitigation measures necessary may vary depending on the scale of the proposed activities.</p>

Stakeholder Feedback – Issue	AER Response
8. Environmental Requirements – Land Use	
The requirement to identify land uses adjacent to the assessment area is unnecessary and increases the requirements without adding value to the process as criteria has been provided to justify the land use assessment area.	This requirement has been removed.
The requirement to identify footprint for exploration programs (e.g., wells, seismic) is outside of the scope of the approval and should be removed.	This requirement has been removed.
The requirement to identify local and regional land-use plans, policies, and approvals that affect the project area are redundant with requirements outside the scope of <i>OSCA</i> , including <i>EPEA</i> and the <i>EPEA Guide to Content</i> , are unnecessary and should be removed.	This requirement must remain in the directive to support the implementation of subregional plans, which are linked to project areas under <i>OSCA</i> approvals.
Indigenous land-use plans should be added to the list of plans, policies, and approvals that should be considered for land use.	Access to Indigenous knowledge and land-use plans may be classified as proprietary, and it is outside of AER’s jurisdiction to request this information.
The requirements to identify and discuss the potential to use existing project footprint are redundant with requirements outside the scope of <i>OSCA</i> and should be removed.	The directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small-scale in situ projects.
<i>Directive 023</i> should include light pollution, dust, and noise as part of the requirement to discuss land-use project effects due to impact to traditional land use.	For applications with <i>EPEA</i> approvals, dust management is addressed under <i>EPEA</i> . The AER is not incorporating the suggested changes because dust, noise, and light management are addressed through <i>EPEA</i> approvals. <i>Directive 023</i> contains consideration for noise impacts under the noise subsection.
<i>Directive 023</i> should be updated to ensure applicants are demonstrating how they are using best practices to manage and minimize their footprint on the landscape, including mitigating residual effects, and that First Nations and Métis are consulted regarding land use and access.	Footprint and land management is addressed in <i>EPEA</i> and the <i>Public Lands Act</i> . The <i>Master Schedule of Standards and Conditions (MSSC)</i> uses land management expectations and best practices under the <i>Public Lands Act</i> .

Stakeholder Feedback – Issue	AER Response
9. Environmental Requirements – Soils	
<i>Directive 023</i> should be revised to have sensitive soil types and soil series identified within the assessment area as this will provide more complete information to assess potential soil impacts from acid inputs.	This requirement has been removed to be more appropriately addressed under <i>EPEA</i> or the <i>Public Lands Act</i> .
10. Environmental Requirements – Vegetation and Wetlands	
The requirement to identify rare or culturally important wildlife species is inconsistent with established assessment methodology and should be removed.	Impacts to species that are rare or of cultural importance are part of project effects. The AER must consider project impacts from the proposed activity as part of <i>OSCA</i> decisions.
Technical references may not be current (e.g., Alberta Wetland Inventory) and should be updated.	Technical references have been updated.
The new <i>Alberta Wetland Policy</i> has new assessment requirements and mitigations required for projects impacting wetlands; align <i>Directive 023</i> to remove duplication or inconsistency.	Reference to <i>Alberta Wetland Policy</i> has been added.
The vegetation and wetlands requirements are redundant with requirements outside the scope of <i>OSCA</i> and should be removed.	The directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small-scale in situ projects.
The requirement to include a table of overall project area in hectares by ecosite type can potentially cause confusion with the requirement that asks for a description of the assessment area.	The requirement is for the project area, as assessment area may vary depending on the scale of project and predicted effects. A new definition for project area has been added for clarity.
<i>Directive 023</i> should be revised to have nitrogen deposition (potential eutrophication/fertilization effects) and direct fumigation toxic effects associated with air contaminants such as SO ₂ , NO _x and O ₃ assessed to ensure these potential impact issues are specifically addressed in applications.	This requirement was not added because modelling of air deposition is most commonly associated with EIA applications and <i>EPEA</i> amendment applications. We will continue to address those impacts under those processes.

Stakeholder Feedback – Issue	AER Response
<p><i>Directive 023</i> should be updated to ensure applicants are demonstrating how they are using best practices to manage and minimize their footprint on the landscape, including mitigating residual effects, and that First Nations and Métis are consulted regarding land use and access.</p>	<p>This requirement was not added as wetland disturbances are managed under the <i>Alberta Wetland Policy</i> and under <i>Water Act</i>, <i>EPEA</i>, and <i>Public Lands Act</i> applications. Wetland management, including wetland reclamation, are addressed under the <i>Alberta Wetland Policy</i>.</p>
<p>11. Environmental Requirements – Wildlife</p>	
<p>The requirements for identifying and discussing effects of sensory loss is incorrect as the assessment is normally of potential sensory disturbance rather than loss.</p>	<p>This has been corrected and updated.</p>
<p>The wildlife requirements are redundant with requirements outside the scope of <i>OSCA</i> and should be removed.</p>	<p>The directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small-scale in situ projects.</p>
<p>Issues regarding wildlife populations, especially caribou, moose, and bison, need to be appropriately assessed, including impacts of changes to these populations on Treaty and Aboriginal (s. 35) rights.</p>	<p>The predicted effects of oil sands development on wildlife populations could include direct and indirect effects on wildlife mortality, sensory disturbance, health, movement, and habitat availability. However, wildlife populations may be affected by other activities on the land such as forestry or recreation, etc. or natural dynamics such as mortality, natality, immigration, emigration, etc. Management of wildlife populations (including population estimates, variability, and associated viability) is the responsibility of Alberta Environment and Protected Areas.</p>
<p>12. Environmental Requirements – Hydrology and Surface Water Quality</p>	
<p>The requirements for identifying water bodies, specifically to illustrate contours and crossing structures, should be changed to illustrate contours and crossing <i>locations</i> because the structures can only be described in a general way.</p>	<p>This requirement is now for a map with topographic contours that shows water bodies and crossing structures overlaid with the project and, if applicable, the development area; the AER requires indication of the type of crossing structure (e.g., culvert, bridge).</p>
<p>The requirement to identify and describe the watersheds and water bodies in the project area is redundant with requirements outside the scope of <i>OSCA</i> and should be removed.</p>	<p>This requirement must remain in the directive to identify potential impacts to water bodies from the proposed <i>Directive 023</i> application.</p>

Stakeholder Feedback – Issue	AER Response
<p>The hydrology requirements suggest that an application for <i>Water Act</i> approval or license must be submitted before submission of a <i>Directive 023</i> application, which may not always be the case.</p>	<p>This reference to <i>Water Act</i> applications has been removed. Our intention is not to require submission of duplicate information under <i>Water Act</i> and <i>OSCA</i>.</p>
<p>The setback requirements for water bodies are redundant with <i>Directive 056</i> and the <i>Oil and Gas Conservation Rules</i> and should be removed.</p>	<p>No change has been made because the <i>Directive 056</i> wording reflects conventional oil and gas facilities while <i>Directive 023</i> wording reflects in situ facilities and mining.</p>
<p>The hydrology requirements are redundant with requirements outside the scope of <i>OSCA</i> and should be removed.</p>	<p>The directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small-scale in situ projects.</p>
<p>The requirements to submit a hydrological model and water quality model are for applications that do not require EIAs. It is unclear what types of mining applications would be submitted where an EIA would not be required. If the intent is meant to be used for amendment applications, then it should be stated.</p>	<p>These requirements have been removed as it would be addressed under a <i>Water Act</i> application.</p>
<p>The surface water quality requirements are redundant with requirements from outside the scope of <i>OSCA</i> and should be removed.</p>	<p>The directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small-scale in situ projects.</p>
<p>13. Environmental Requirements – Fisheries</p>	
<p>Fisheries impacts and environmental impacts to fish is redundant with the federal “no net loss” plan and should be removed, limiting content to fish and fish habitat.</p>	<p>The AER has the responsibility to consider environmental impacts, including impacts to fisheries and aquatic ecosystems, from regulated activities. The current fisheries section in <i>Directive 023</i> does not reference any information specific to the federal <i>Fisheries Act</i>.</p>
<p>The fisheries requirements are redundant with requirements from outside the scope of <i>OSCA</i> and should be removed.</p>	<p>The directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small-scale in situ projects.</p>

Stakeholder Feedback – Issue	AER Response
<p><i>Directive 023</i> should require information regarding the potential for the project to contribute to increased fishing due to increased population because the impacts of access on wildlife and fisheries resources are often not adequately assessed.</p>	<p>The AER does not have jurisdiction over the management of fisheries resources and cannot specify conditions restricting access to recreational fisheries. The AER does control access through conditions of approvals where it is deemed necessary. Alberta Environment and Protected Areas does adjust fishing regulations based on fishing pressure, which includes increased access to fisheries based on project development. Many proponents indicate that they do not permit staff to access fishing opportunities that may exist on the lease. Buffers, which limit direct access, are also required to protect aquatic ecosystem resources. A requirement to discuss increased fishing pressure as a result of the project was removed as this was based on an old requirement under ESRD prior to the formation of the AER.</p>
14. Environmental Requirements – Hydrogeology	
<p>The hydrogeology requirements are redundant with requirements from outside the scope of <i>OSCA</i> and should be removed.</p>	<p>Hydrogeology requirements have been updated under the “Socioeconomic and Environmental Requirements for Small-Scale In Situ Projects” applications section.</p>
15. Environmental Requirements – Air Quality and Emissions	
<p>The greenhouse gas management plan requirements are redundant with <i>EPEA</i> requirements and should be removed.</p>	<p>The greenhouse gas (GHG) management plan requirement must remain in the directive to consider GHG emissions management as part of the proposed <i>Directive 023</i> application. Existing GHG requirements under <i>EPEA</i> only manage GHG emissions during project operations, whereas this requirement is necessary to consider as part of the <i>Directive 023</i> application.</p>
<p>The requirement to burn or conserve gas is redundant with <i>Directive 060</i> and should be removed.</p>	<p><i>Directive 060</i> does not apply to processing plants. This requirement in <i>Directive 023</i> ensures the same requirement applies to processing plants.</p>
<p>The odour requirement under air quality and emissions is redundant with requirements from outside the scope of <i>OSCA</i> and should be removed.</p>	<p>This requirement is to manage odours for facilities without <i>EPEA</i>. But the directive has been restructured, with clarity provided for the type of application for which environmental information must be submitted for new projects and amendments or small-scale in situ projects.</p>

Stakeholder Feedback – Issue	AER Response
<p>There are deficiencies in the <i>EPEA Guide to Content</i> regarding air quality. <i>Directive 023</i> needs to address both <i>OSCA</i> and <i>EPEA</i> requirements to ensure environmental issues are properly assessed.</p>	<p>The GoA maintains an <i>EPEA Guide to Content for Industrial Approval Applications</i>, which is identical to the <i>EPEA Guide to Content for Energy Project Applications</i> that is applicable to AER-regulated activities. The AER does not have the authority to initiate or make changes to either document.</p> <p>Air requirements remain in the “Environmental Requirements” and the “Socioeconomic and Environmental Requirements for Small-Scale In Situ Projects” sections.</p>
<p>The impact of air emissions on the quality of life and use and enjoyment of traditional territories by Indigenous communities are major issues and concerns, especially odours and releases that lead to poor air quality events. The air quality requirement in <i>Directive 023</i> should be revised to include more information such as odour impact assessments, validations of air dispersion and deposition modelling, and address all air emission sources and contaminants and demonstrate that best practices are being used to manage these emissions. Specific recommendations, such as meteorological conditions, baseline air quality information, plot plan of emission sources, air modelling input data, modelled predictions, mitigation measures, odours, air emission control technology, and monitoring, were suggested.</p>	<p>The concern raised and recommendations are more relevant to Government of Alberta policy requirements and possibly EIA terms of reference consideration. They should be directed to appropriate policy makers to advise in any future policy changes.</p> <p>The recommendations include many items that are already addressed through the <i>EPEA</i> approval process (or EIA process for certain circumstances).</p>
<p>16. Environmental Requirements – Noise</p>	
<p>Noise impact assessment (NIA) requirements are redundant with the <i>EPEA</i> EA process and should be removed. For projects that do not require an EA process, provide clarification on when a NIA is required.</p>	<p>The requirement for noise impacts must remain in the directive for us to consider in <i>OSCA</i> decisions. In addition to noise impact assessments, we need to ensure the requirements of <i>Directive 038</i> are adhered to.</p>
<p>The noise requirements are redundant with <i>Directive 038</i> requirements and should be removed.</p>	<p><i>Directive 038</i> noise requirements must be fulfilled for proposed oil sands projects. Similar information may be provided under EIAs to fulfill both <i>Directive 038</i> and EIA requirements, where applicable.</p>

Stakeholder Feedback – Issue	AER Response
<p><i>Directive 038</i> does not address the type of sounds that contribute to nuisance noise. Noise impact assessments should be included as part of <i>Directive 023</i> applications, including noise assessment outlined in Health Canada’s <i>Guidance for Evaluating Human Health Impacts in Environment Assessment</i>, so that affected parties can assess the results and determine if best practices are being taken to mitigate noise.</p>	<p>Health Canada’s guidance is for best practices. We encourage large-scale projects to conduct such an assessment.</p>
<p>17. Environmental Requirements – Reclamation</p>	
<p>Reclamation requirements are redundant with the <i>EPEA</i> reclamation requirements in the <i>EPEA Guide to Content for Energy Project Applications</i>, which are superseded and specifically outlined in <i>Specified Enactment Directions 001</i> and <i>003</i> and should be removed.</p>	<p>Reclamation requirements have been removed. <i>Specified Enactment Direction (SED) 001</i> only applies to commercial in situ operations under <i>EPEA</i> (>2000 m³/day). The <i>EPEA Guide to Content for Energy Project Applications</i> requirements are not superseded by <i>SED 001</i> for small-scale in situ projects but do cover reclamation requirements.</p>
<p><i>Directive 023</i> should be updated to ensure applicants are demonstrating how they are using best practices to manage and minimize their footprint on the landscape, including mitigating residual effects, and that First Nations and Métis are consulted regarding land use and access.</p>	<p>For in situ, best management practices are addressed in sections 3 and 3.6.5 of <i>SED 001: Direction for Conservation and Reclamation Submission</i>. Conservation practices can be guided by similar best management practices based on research findings and ongoing monitoring results. In addition, section 3.6.8 of <i>SED 001</i> requires a discussion on adaptive management based on reclamation outcomes and monitoring results.</p> <p>The management of the project footprint is addressed in the <i>EPEA Guide to Content for Energy Project Applications</i>.</p>
<p>18. In Situ Applications (Section 7)</p>	
<p>The requirement for geological modelling files may contain proprietary aspects such as model construction, which should be kept confidential.</p>	<p>Language has been updated. Any concerns with submission of confidential information should be discussed with the AER prior to submitting the subject information.</p>
<p>The requirement for hydrogeology of six sections beyond the project area does not align with the geology characterization, which requires one section beyond project area, and should be aligned to project area plus one section.</p>	<p>The AER believes six sections is adequate to characterize regional hydrogeology. Effects to hydrogeology can extend over large distances (e.g., drawdown from groundwater pumping).</p>

Stakeholder Feedback – Issue	AER Response
<i>Directive 023</i> should include monitoring and management plans to prevent leaks of process-affected water and bitumen into groundwater, surface water, and wetlands and contingency plans for how such leaks would be stopped, mitigated, and remediated.	Incidental spills are addressed through the AER incident response process. Leaks may be detected through groundwater monitoring programs and wetland and water body monitoring programs, which are reviewed under <i>EPEA</i> post approval. Investigation of the cause of leaks must be addressed under monitoring programs.
<i>Directive 023</i> should identify traditional users of aquifers and springs and require the provision of a map indicating locations of use and source and disposal activities, as effects on groundwater use by traditional users is an area that is often not assessed by proponents.	“Traditional groundwater use locations” has been added to water source and receptor requirements.
For SAGD projects, operating strategy details typically only include injection and production durations and bottomhole pressures. The injection rates, volumes, and temperatures requirements are not typically provided and should be removed.	Clarification regarding the “expected range of” injection details has been added and clarified that the pressures and temperatures are measured at the bottomhole.
Steam schedules are evaluated and changed monthly; revise <i>Directive 023</i> and remove cycle-by-cycle basis to allow for flexibility in operations. A general description of the operating strategy should be sufficient for application processes for cyclic steam stimulation (CSS) operations.	Changed wording of the requirement, indicating it is on a cycle-by-cycle basis.
Revise the definitions of reserves used in the in situ application sections to resource and resource recovery in alignment with the definition of resources per the <i>Canadian Oil and Gas Evaluation Handbook (COGEH)</i> .	Reserves section has been retained. Where applicable, references to reserves have been changed to refer to resource and resource recovery instead.
Consider revising the requirement for reservoir simulation modelling files as the files may contain proprietary aspects that the AER may not have software to view the simulations.	Reservoir simulation may be required. Applicants are encouraged to discuss with the AER before submitting an application, whether that is the case for their project. Modelling will be requested if it is warranted based on the risk posed by the development. Information that is proprietary should be flagged and discussed with the AER before any submission or sharing of information is made.
Current process is well understood and there are no concerns with the current approach to assessing and reporting thermal compatibility requirements.	Updates have been made to the “Existing Wells in the Project Area” section, including adding distances for affected wells. An updated form is available on the AER website, which replaces appendix G.

Stakeholder Feedback – Issue	AER Response
<p>The requirements to provide drilling specifications and plans and completion design diagrams are redundant with <i>Directive 056</i> and other directives and should be removed or revised to reflect that a general drilling/completion design is acceptable.</p>	<p>Added “general” as a descriptor of wellbore schematic.</p>
<p>4D seismic should be added as an example of possible operational monitoring systems.</p>	<p>The AER has updated the requirement to provide a discussion on the operational monitoring systems proposed, including 4-D seismic as an example. However, adding 4D does not mean the AER will accept this as a sole mechanism for monitoring.</p>
<p>The requirement to conduct in situ operations in a manner that ensures reservoir fluid containment does not specify what information is to be submitted in the application and is inconsistently framed and redundant with other operations requirements and should be removed or reframed for alignment with the section that follows it.</p>	<p>Changes to the wording have been made, including a requirement that operators must demonstrate in their application that reservoir fluid will be contained.</p>
<p>The AER should relocate requirements 159 and 160 to the beginning of the “Reservoir Containment and Maximum Operating Pressure (MOP)” section because they are related to MOP.</p>	<p>Requirements in “Shallow Area” section only apply to SAGD projects within the shallow area, whereas requirements in the “Reservoir Containment and Maximum Operating Pressure (MOP)” section apply to all SAGD projects, regardless of whether the projects are located within or outside the shallow area.</p>
<p>Remove the requirement for description of data analysis techniques and geological features that might affect results recognizing that relevant data-derived information is required in the requirement directly after and elsewhere in the section.</p>	<p>Requirement has been revised to clarify additional details for the requirement for data analysis techniques and geological features.</p>
<p>The requirement for micro-fracture tests is vague and it is unclear what the expectations are related to number of tests as well as the definition of “vicinity.”</p>	<p>Given that the geology of every project is different, it would be difficult to be descriptive in determining the number of micro-fracture injections tests and locations of the tests relative to the location of any geological features. The AER expects applicants to use their best judgement to conduct an appropriate number of micro-fracture injection tests. The applicant should conduct these tests at appropriate locations relative to the locations of the geological features, in order to investigate whether these fractures could compromise caprock integrity and impact the fracture closure gradients of the caprock.</p>

Stakeholder Feedback – Issue	AER Response
Provide clarification of the intended scale/location of bottomhole MOP determination.	The AER has changed the last paragraph of the MOP bottomhole pressure requirement to clarify how the MOP may be determined.
The definition of “minimum safety factor” is not provided and appears to be inconsistent with accepted use. Change the term to “safety multiplier.”	Since this nomenclature of “0.8 safety factor” has been used by the AER to communicate with industry for more than a decade without any misunderstanding, the AER will continue to use this nomenclature so not to create potential confusion with this directive.
There are technical challenges in detecting fracture initiation through monitoring.	The AER has changed the wording of the requirement to a caprock integrity monitoring plan.
Geomechanical modelling limitations such as model calibration using field observations lead to over- or under-estimation may impact the reliability of the results. Remove the requirement or acknowledge that the model has limitations.	The AER understands that uncertainty exists in geomechanical modelling. However, geomechanical models must be calibrated and updated with field monitoring data to periodically re-evaluate the reservoir containment risk of operating SAGD projects in the shallow area.
Constraints in some areas may impact ability to collect three-dimensional seismic data, and it is unclear from the requirement what the AER would consider to be a “demonstrated equivalent.”	The requirement has been updated to reflect additional detail provided in the appendix on geological units.
It is unclear what the AER considers to be “shear failure” in the geomechanical model. Revise the requirement to enable use of MOP changes as an effective strategy to mitigate against shear failure.	The AER has changed the wording of the requirement to enable shear failure risk to be addressed.
The driver for the requirement for a <i>Water Act</i> application to be processed in parallel with the <i>Directive 023</i> application is unclear. Requiring these processes to be parallel may create delays for projects or may impact ability to effectively manage regulatory processes. Remove the requirement from the directive.	The requirement that <i>Water Act</i> applications be processed in parallel with the <i>Directive 023</i> application has been removed and replaced by a recommendation of when <i>Water Act</i> applications and <i>Directive 023</i> applications be processed in parallel.
Water sources for in situ developments are better described as per the AEP <i>Water Conservation Policy for Upstream Oil and Gas Operations</i> and AER <i>Directive 081</i> . Additional definitions for “nonsaline” and “saline” creates confusion and a revision of the requirement is suggested.	Groundwater Information Letter 1/2010 addresses the analytical requirement for determining TDS of water; the <i>Water Conservation Policy</i> and <i>Directive 081</i> do not. The sub-requirements have been revised.

Stakeholder Feedback – Issue	AER Response
The preamble to the “Disposal, Including Cavern Disposal and Cavern Storage Schemes” section has missed a key piece of disposal scheme design. Revise to include <i>Directive 051</i> .	Accepted recommendation.
It is unclear why the AER requires the approximate duration to achieve the maximum injection rate for each well and should be removed or additional context added.	Together with the other disposal requirements, the intent of this requirement is to assess the viability of disposal at a proposed project at a high level. Having the estimated time to achieve max injection pressure and estimated time the maximum rate is sustained would improve this analysis. We have removed this requirement, but the AER will default to assuming maximum rate is achieved instantaneously, and the maximum rate is sustained over the entire life of the project. If concerns are identified using these values, additional information will be requested through SIRs.
Surface facility design, operation, and controls are redundant with the <i>EPEA</i> , <i>EPEA Guide to Content</i> , and <i>Directive 056</i> and should be removed.	Changes were made to the facilities section of the directive to reduce the overlap with <i>Directive 056</i> and the <i>EPEA Guide to Content for Energy Project Applications</i> .
19. Mining Applications (Section 8)	
There is uncertainty regarding how to address contents of the concordance table that requires reference to where each mining requirement is addressed in the application for amendment applications where not all requirements apply.	Proponents are expected to provide a concordance table for the relevant requirements for the amendment application.
Some operators have a variance to the <i>Directive 082</i> requirements and, as such, the mine design requirement should also recognize any approved variances from <i>Directive 082</i> .	Changes have been made for applicants to discuss how the approval conditions of the variance will be met.
Under the economic evaluation requirement for mine design, a discount rate equal to the current Bank of Canada’s 10-year bond rate is not sufficient for economic evaluation and should be revised to allow for an appropriate discount rate, including justification, to be applied.	Changes have been made to account for an appropriate discount rate with the requirement for discussion of its applicability.

Stakeholder Feedback – Issue	AER Response
<p>The stability analysis requirement for storage or disposal structure design cannot be adequately addressed without a geotechnical report and should align with the timing prescribed within section 24.01 of the <i>OSCR</i>.</p> <p>Revise to the directive to use “anticipated risks and uncertainties associated with the stability analysis ...” instead of “risks and uncertainties associated with the design...”</p>	<p>Geotechnical reports prepared and reviewed closer to construction are already addressed under section 24.01 of the <i>OSCR</i> and therefore the addition of “... to be provided with geotechnical report, six months prior to construction of the storage or disposal structure” has not been included.</p> <p>The requirement has been revised to state “anticipated” risks.</p>
<p>The requirement to use reclamation material definitions consistent with soil salvage requirements creates uncertainty because there are no soil salvage requirements in the directive. Provide an external reference to applicable soil salvage requirement or revise to provide clarity regarding applicable requirements.</p>	<p>Reference to reclamation material definitions being consistent with soil salvage requirements has been removed.</p>
<p>Move the requirement to demonstrate that the fluid tailings management plan is aligned with existing approvals and plans to the “Tailings Management” section and add additional detail regarding the specific approvals and plans.</p>	<p>The same wording is included in <i>Directive 085</i>, section 4.3(4). This change to the “Tailings Management” section will not be made to avoid duplication.</p>
<p>Provide clarity that applicants are to address assumptions used in mine plan development, including inconsistencies between the mine plan and other plans. Add a new requirement to identify inconsistencies and how alignment will be achieved between the mine plan and current approvals.</p>	<p>The same wording is included in <i>Directive 085</i>, section 4.3(4). This change to the “Tailings Management” section will not be made to avoid duplication.</p>
<p>As requirements pertinent to the mine plan appear limited in this section, it is recommended that the AER reference the <i>Specified Enactment Direction 003: Direction for Conservation and Reclamation Submissions under an Environmental Protection and Enhancement Act Approval for Mineable Oil Sands Sites</i> so that operators are aware of conservation and reclamation requirements.</p>	<p><i>Directive 023</i> requirements are consistent with <i>OSCA/OSCR</i> requirements for mine plans. We do not find it necessary to include references to <i>SED 003</i> or <i>EPEA</i> approvals.</p>

Stakeholder Feedback – Issue	AER Response
The requirement for per-train capacity for extraction plants is new, and it is unclear what the intent is in requiring per-train capacity in addition to overall capacity.	This is not a new requirement. The directive requires applicants to include details and descriptions for each major process unit, its components, its capacity, and material balances for the project as a whole and for each phase of the project. By knowing per train capacities, it helps the AER understand the applicant’s operations, redundancy capabilities, and any impacts associated with production, by-products, and waste (i.e., diluent recovery, sulphur recovery, coke production).
Tailings management requirements redundant with <i>Directive 085</i> should be removed.	Duplication between <i>Directive 085</i> and <i>Directive 023</i> has been removed.
<i>Directive 074</i> is no longer applicable and should be removed.	Reference to <i>Directive 074</i> has been removed.
The measurement plan required redundant with <i>Directive 085</i> should be removed.	Duplication between <i>Directive 085</i> and <i>Directive 023</i> has been removed.
It is unclear how the application and amendment requirements for tailings management under <i>Directive 085</i> have been incorporated into the new draft <i>Directive 023</i> .	For some <i>Directive 023</i> requirements related to geotechnical structures that contain fluid tailings, material balances for construction material (i.e., overburden and coarse tailings sand) are necessary for context and verification in <i>Directive 023</i> submissions (conceptual plans) and in <i>Directive 085</i> submissions (detailed plans).
For the tailings management requirement, additional information is required concerning the structures, biogeochemical change, and end points associated with tailings storage in order to understand detailed mass balance and long-term environmental effects. In addition, Alberta’s new mineral strategy, Renewing Alberta’s Mineral Future: A Strategy to Re-energize Alberta’s Minerals Sector necessitates more information about value-added opportunities in oil sands tailings and other waste streams with special interest on critical minerals, to achieve one of the key goals: increase public geoscience. Amend the tailings management requirements in accordance with a Supreme Court decision that all components must be disclosed, including forth treatment composition, rare earth elements, other critical minerals, waste, toxicity, etc.	Locations, contents, and plans for all tailings are already required by <i>Directive 085</i> . Regarding the use of polymers, waste streams characterization, IWW reports, and toxicity, they are addressed by <i>EPEA</i> .

Stakeholder Feedback – Issue	AER Response
20. Processing Plant Applications (Section 9)	
<p>The requirement for per-train capacity for processing plants is new and it is unclear what the intent is in requiring per-train capacity in addition to overall capacity.</p>	<p>This is not a new requirement. The directive requires applicants to include details and descriptions for each major process unit, its components, its capacity, and material balances for the project as a whole and for each phase of the project. By knowing per train capacities, it helps the AER understand the applicant’s operations, redundancy capabilities, and any impacts associated with production, by-products, and waste (i.e., diluent recovery, sulphur recovery, coke production).</p>
21. Amendment Applications (Section 10)/Amendment Application Categories (Section 10)	
<p>The amendment applications section should be revised to meet the intent of the relevant acts, regulations, and rules, which call for the review of only those changes that are “substantial” or “significant.” The AER currently reviews all modifications regardless of scope. Operators require greater certainty, clarity, transparency, and predictability related to the amendment process and timeframes. The AER is encouraged to adopt a risk-based/life-cycle approach to reviews.</p>	<p>Revisions have been made to the “Amendment Applications” section and other sections of the directive as appropriate to reflect that information submitted with amendment applications should be scaled according to the proposed modifications.</p>
<p>The term “solvent” should be replaced with “injected hydrocarbon” to reflect industry practice more accurately.</p>	<p>“Solvent injection” is the common term used for this activity. “Hydrocarbon” does not accurately reflect all materials; therefore, the AER has not made the recommended change.</p>
<p>A category 2 amendment for the addition of mine material storage areas within the approved project area is inconsistent with the risk level of other category 2 amendments. Consider revision to allow flexibility of movement of storage areas as long as the storage areas meet requirements. Remove addition of a storage area as an example of a category 2 amendment.</p>	<p>Amendment applications section has been revised to clarify amendment application categories. Specific reference to “Adding new mine material storage areas within the approved project area” has been removed.</p>
<p>The requirement of the AER to specifically review and approve all modifications that will “beneficially affect resource conservation” does not align with the intent of the legislation related to resource conservation and does not recognize that operators are required to maximize the recovery of crude bitumen as per section 36 of the <i>OSCR</i>.</p>	<p>Revisions have been made to the “Amendment Applications” section around category amendments, and language around beneficially affecting resource conservation has been removed. However, for small-scale in situ projects, the definition still considers affects to resource conservation via daily bitumen production rates.</p>

Stakeholder Feedback – Issue	AER Response
Revise the amendment application requirement to supply previously submitted information to specify applicability to submissions made in accordance with existing approval requirements.	Scalability is addressed in the “Amendment Applications” section. New modelling may not be required with all amendments, only when applicable, and therefore the requirement will remain as is.
The amendment applications categories for oil sands mining applications lack clarity. Provide specific guidance for mining activities.	The category amendment definitions have been updated.
There is uncertainty regarding whether operators are required to choose an amendment category upon submission and when the AER would recategorized an application. Provide information on the drivers of recategorization and how this is communicated to the applicant.	The category amendment definitions have been updated, and additional clarity on what activities (in situ) fall within each amendment category has been provided in web content. Applicants should use their best judgement and select the most suitable amendment category to file their application under. The AER reserves the right to recategorize the application after the technical information is reviewed in detail.
The applicability and scalability of requirements for amendment applications is unclear and implies applicant discretion based on the type of amendment. The AER should define applicable requirements based on amendment category.	The number of combinations and permutations of what can be applied for is far too large to describe specifically what is required for each type of amendment in this directive. Revisions have been made to the “Amendment Applications” section and other sections of the directive as appropriate to reflect the intent that information submitted with applications should be reflective of what modifications are being proposed.
There is lack of certainty in the absence of a draft manual that requirements for in situ amendment applications may be misaligned with risk.	The AER does not plan to release a companion manual at this time. The category amendment definitions have been updated, and additional clarity on what activities (in situ) fall within each amendment category have been provided in web content.
There is lack of clarity regarding what constitutes a substantial or significant modification, per <i>OSCR</i> , to resource conservation, process flows, material balances, increase to project area or development area, or socioeconomic impacts in relation to amendment applications. Include a definition of resource conservation and reflects the intent of <i>OSCA</i> and <i>OSCR</i> .	The AER has not included a definition for resource conservation as that is implied within <i>OSCA</i> itself. The category amendment definitions have been updated, and additional clarity on what activities (in situ) fall within each amendment category, including changes to resource conservation, have been provided in web content.
Revise the amendment categorizations to focus on whether the proposed activity modification will substantively alter the impacts as previously assessed/approved rather than relying on socioeconomic impacts.	Revisions have been made to the “Amendment Applications” section category amendments, including removal of impacts to socioeconomics as criteria.

Stakeholder Feedback – Issue	AER Response
<p>Increases in development area within an approved project area should not necessitate a category 3 amendment as impacts associated with a change in development area may not differ from those as previously assessed/approved. Move development area increases to category 2.</p>	<p>Reference to development area changes has been removed from the category definitions in the “Amendment Applications” section. Additional clarity on what activities (in situ) fall within each amendment category have been provided in web content.</p>
<p>The delineation between category 2 and 3 amendments is unclear as “may” vs. “will” is subjective. To enable certainty, focus should be on scope/scale of modification proposed.</p>	<p>The category amendment definitions have been updated, and additional clarity on what activities (in situ) fall within each amendment category have been provided in web content.</p>
<p>Current wording within <i>Directive 023</i> implies that any change, regardless of how small, will require a category 1 amendment. Revise to include only changes that would introduce a new process within the facility.</p> <p>Additional clarity with respect to type of change requiring a category 1 amendment will reduce unnecessary <i>Directive 023</i> applications as they are submitted under <i>Directive 056</i>. This will also reduce duplicative reporting as these are reported in annual <i>Directive 054</i> performance reports.</p>	<p>The category amendment definitions have been updated, and additional clarity on what activities (in situ) fall within each amendment category have been provided in web content.</p>
<p>Current wording within <i>Directive 023</i> implies that any change, regardless of how small, will require a category 2 amendment if it has the potential to impact resource conservation (recovery), regardless of whether it impacts resource recovery positively or negatively.</p> <p>Additional clarity with respect to type of change requiring a category 1 amendment will reduce unnecessary <i>Directive 023</i> applications and reduce duplicative reporting as these are reported in annual <i>Directive 054</i> performance reports.</p>	<p>The category amendment definitions have been updated, and additional clarity on what activities (in situ) fall within each amendment category have been provided in web content.</p>

Stakeholder Feedback – Issue	AER Response
<p>Indigenous communities potentially impacted by an amendment application should be notified directly in advance of any final decision to apply <i>EPEA</i> clause 67(3)(b) to an oil sands project change (i.e., not require an amendment application) and be given the opportunity for input on the decision.</p>	<p>Changes to <i>EPEA</i> are out of the scope of changes being made to <i>Directive 023</i> as part of this project. Once the AER is engaged by the Government of Alberta regarding changes to <i>EPEA</i>, this feedback will be considered and incorporated where appropriate.</p>
<p>The AER, in collaboration with AEP, should consider, in any future amendment to <i>EPEA</i> that clause 67(3)(b) be changed to: “changes that do not result in an increase in the release of a substance into the environment or a relocation of existing emissions to a location materially different from their current location of release.”</p>	
<p><i>Directive 023</i> applications should be considering Treaty and Aboriginal (s.35) rights and Indigenous communities. This includes engagement on amendment categorization, the level of engagement with Indigenous communities, and the need for an EIA. Suggestions include, removing categorization amendments, require consultation with Indigenous communities for all amendments, specify that potentially affected rights include Treaty and Aboriginal (s. 35) rights, require applicants to consolidate amendment applications, seek input from Indigenous communities regarding discretionary EIAs and related decisions consider impacts to Treaty and Aboriginal (s. 35) rights and cumulative effects.</p>	<p>The category amendment definitions have been updated, and additional clarity on what activities (in situ) fall within each amendment category have been provided in web content. The AER continues to believe there is a process benefit to categorization to ensure the appropriate information is received for a particular activity.</p> <p>The AER encourages applicants to bundle applications together and submit joint applications where feasible.</p> <p>The AER also takes into consideration advice it receives from the Alberta Consultation Office (ACO) regarding the adequacy of Crown consultation and any advice ACO may provide regarding mitigation of impacts. The AER does not have authority over Crown consultation regarding the constitutionally protected rights of Aboriginal peoples.</p> <p>When making a decision on an application, the AER considers possible impacts to Indigenous people, including to their rights, where it is provided with information regarding these potential impacts in the application and hearing processes.</p> <p>Cumulative effects are reviewed and considered when the AER received information on that topic.</p> <p>Connections between different legislation and EIA processes in relation to <i>OSCA</i> applications have been provided in web content.</p>

Stakeholder Feedback – Issue	AER Response
<p><i>Directive 023</i> should eliminate the categorization of amendment applications and ensure that all amendments have a consultation requirement. Sufficient technical information to demonstrate that resource conservation, environmental and socioeconomic, stakeholders, and Aboriginal and Treaty rights will not be impacted.</p>	<p>The directive states <i>OSCA</i> amendment applications may also require amendment applications under specified enactments (<i>EPEA, Public Lands Act, Water Act</i>). The SOC process is applicable to amendment applications under specified enactments.</p> <p>Revisions have been made to the “Amendment Applications” section category amendments, including removal of impacts to socioeconomics as criteria.</p> <p>The AER also takes into consideration advice it receives from the Alberta Consultation Office (ACO) regarding the adequacy of Crown consultation and any advice ACO may provide regarding mitigation of impacts. The AER does not have authority over Crown consultation regarding the constitutionally protected rights of Aboriginal peoples.</p> <p>When making a decision on an application, the AER considers possible impacts to Indigenous communities, including to their rights, where it is provided with information regarding these potential impacts in the application and hearing processes.</p> <p>Crown consultation with Indigenous peoples is the responsibility of the Government of Alberta. The AER does not have authority over Crown consultation regarding the constitutionally protect rights of Aboriginal peoples. The ACO provides information to the AER on its processes, status/adequacy of consultation, and possible mitigations.</p> <p>The “Stakeholder Involvement” section outlines the stakeholder involvement requirements, which may also be scaled based on the scope of project.</p>
22. Appendices (Appendices)	
<p>The requirement to limit file sizes to 200MB is not appropriate for modelling submissions. Revise to allow for submission methods other than CD or portable hard drives, including consideration of technology solutions to enable submission of larger files.</p>	<p>This requirement has been removed.</p>
<p>The definition of oil sands project lacks clarity on what is included or not included for the purpose of <i>Directive 023</i>, including which activities require and application. Provide additional detail about what is in and out of scope.</p>	<p>This is a definition; it does not include detailed requirements regarding what is in and out of scope. Detailed requirements are described in the main body of the directive.</p>

Stakeholder Feedback – Issue	AER Response
<p>The requirement for applicants to have drilled at least one well per section in each of the sections in a proposed project area does not result in cost-effective resource development and does not support the AER’s intended focus on risk-based outcomes.</p>	<p>One well per section is required to establish the project area. No change has been made.</p>

Stakeholders Who Submitted Feedback in 2022 (in alphabetical order)

Athabasca Region First Nations (ARFN)

- Athabasca Chipewyan
- Chipewyan Prairie Dene
- Fort McKay
- Mikisew Cree First Nations

Athabasca Oil Corporation

Canadian Association of Petroleum Producers (CAPP)

Cold Lake First Nations (CLFN)

Government of Alberta (Land Reclamation, Remediation and Brownfield Policy Section)