

Draft Directive 001 (Released December 2022)

What We Heard – And Our Response



We would like to thank all those who provided comments. We reviewed each one and consolidated comments covering similar issues. What follows is a summary of the issues raised and our responses.

Comments on grammar, punctuation, and cross-referencing have not been summarized, but changes were made where needed.

A list of the respondents is provided at the end of this document.

Stakeholder Feedback – Issue	AER Response
1. General	
Could you clarify the revised scope of <i>Directive 001: Requirements for Site-Specific Liability Assessments</i> , particularly with regards to the changes made to requirements that were in appendix 2?	<p>The contamination management and reclamation requirements that were previously listed in appendix 2 have always applied to all SSLAs and not just sites under the Large Facility Program (LFP). For example, appendix 2 previously required an assessment of groundwater impacts for sites in the LFP, but applicable sites that are not in the LFP may also be subject to an assessment of groundwater impacts. The requirements have therefore been integrated into the main body of the directive.</p> <p>We also removed the requirements from appendix 2 that overlap with requirements in the body of the directive. For example, Phase 1 and 2 environmental site assessments (ESAs) were described in both the body of the directive and in appendix 2.</p> <p>Some additional text has been included for consistency with options for the management of contamination under the <i>Remediation Regulation</i>. This ensures the directive does not duplicate or contradict other regulations, while still providing clear guidance on SSLAs.</p>

Stakeholder Feedback – Issue	AER Response
<p>When is an SSLA required and how do types B, C, and D estimates factor into this assessment?</p> <p>We recommend the AER clarify the facility selection criteria that the SSLA process applies to.</p>	<p><i>Directive 001</i> requires an SSLA when directed by the AER. It also requires that updated SSLAs be submitted at least every five years. There are many programs and application scenarios where an SSLA may be required. See <i>Directive 006: Licensee Liability Rating (LLR) Program</i>, <i>Directive 024: Large Facility Liability Management Program (LFP)</i>, <i>Directive 075: Oilfield Waste Liability (OWL) Program</i>, <i>Directive 088: Licensee Life-Cycle Management</i>, <i>Directive 089: Geothermal Resource Development</i>, <i>Directive 090: Brine-Hosted Mineral Resource Development</i>, and the <i>Oil and Gas Conservation Rules (OGCR)</i> for more information.</p> <p>We no longer use the terminology around types B, C, and D estimates in <i>Directive 006</i>. Please see <i>Directive 006</i>, appendix 5, section 2.3.</p>
<p>Directives 006, 011, and 024 could be more consistent with each other. For example, “problem site” is defined in both <i>Directive 001</i> and <i>Directive 006</i>.</p>	<p>As we continue to implement the new <i>Liability Management Framework</i>, further revisions will be made to liability-management-related directives in phases.</p>
<p>When are SSLAs to be updated as part of a transfer application?</p>	<p>The directive requires updated SSLAs be submitted at least every five years unless otherwise directed by the AER. It does not address licence transfers directly. Transfers are more specifically addressed in <i>Directive 024</i>, <i>Directive 075</i>, <i>Directive 088</i>, <i>Directive 089</i>, <i>Directive 090</i>, <i>Manual 015</i>, and the <i>Oil and Gas Conservation Rules</i>.</p>
<p>We suggest using the Orphan Well Association’s rates as a baseline for SSLAs.</p>	<p>An SSLA is the liability assessed for a particular site. Estimates and baselines are not applicable in this case.</p>
<p>Is an SSLA confidential?</p>	<p>SSLAs may be subject to public disclosure.</p>
<p>The frequency of updated SSLA submissions should be made more flexible.</p>	<p>Submission frequency will not be adjusted at this time.</p>
<p>Is the level of assessment for 10-well-equivalent the same as the level of assessment for the sites under LFP?</p>	<p>No. As stated in section 2 of the directive, the complexity of an SSLA is proportional to a site’s complexity.</p>

Stakeholder Feedback – Issue	AER Response
<p>Recommend the AER remove ambiguity in this directive and help industry understand how to meet the requirements in the revised directive.</p> <p>Recommend the AER provide a definitive list of information required as part of the SSLA as the current requirement is too broad and will allow the AER to arbitrarily decide what information is required in an SSLA.</p>	<p>It is impossible to draft requirements that encompass every possible scenario because each site is unique. SSLAs allow for a site’s uniqueness to be appropriately assessed. We believe the directive clearly lays out the desired outcomes and provides a sufficient level of detail while recognizing our discretion. If you have any questions about meeting the requirements outlined in the revised directive, please contact us at SSLA@aer.ca.</p>
<p>Could you provide more details and process on what level of update would be required for subsequent SSLA renewals? Is the licensee required to recreate the original SSLA? Can the licensee use an independent qualified third party to assess the site and determine what parts of the SSLA need to be updated?</p>	<p>When updating an SSLA, the licensee is not required to recreate the original. The intent of the update is to evaluate any cost changes since the last SSLA was completed. This assessment includes considering factors such as changes in site conditions, unit rates used in estimating costs, regulatory requirements, etc.</p>
<p>Does the AER rank sites based on risk?</p> <p>Will the AER be able to provide a specific timeline for reviewing SSLA submission?</p> <p>Will the AER provide feedback and request additional information after reviewing SSLA submission?</p>	<p>Yes. The AER uses risk-informed assessment criteria that guide the selection of SSLA reviews.</p> <p>SSLA reviews are an integral part of AER’s applications process and are subject to the review timeline for each individual application. Each application is reviewed within our estimated timelines.</p> <p>During this process, we will provide any necessary feedback and request additional information as needed.</p>
<p>Will any revisions to the <i>Directive 001</i> forms be available for review and comment before finalization?</p>	<p>Edited forms will be posted on the AER’s website once the directive is released. Forms C and D will no longer be required as the forms request information that would already be included in an SSLA or environmental site assessment.</p>
<p>The SSLA requirements are included in other directives such as facilities in the LLR program under <i>Directive 006</i>, appendix 5, section 2.3. These SSLA references should be included within <i>Directive 001</i>.</p>	<p>As we continue to implement the new <i>Liability Management Framework</i>, further revisions will be made to liability-management-related directives in phases.</p>

Stakeholder Feedback – Issue	AER Response
2. Costs for Suspension and Abandonment, Including Care and Custody	
The costs to manage hazards on site to protect public safety and the environment in section 4 of the directive are similar to costs to operate and maintain remediation systems in section 5 of the directive.	We have removed the duplication. The costs to manage hazards to public safety and the environment encompasses all necessary monitoring and management of released substances. The AER does not expect the same cost to appear twice in the same SSLA.
Activities to suspend, abandon, remediate and reclaim a site often occur concurrently. As an example, several tasks outlined in section 4 of the directive, such as “removing and disposing of pads, berms, ponds, foundations, piles, concrete, and other base and surfacing materials” are carried out during the remediation and reclamation process rather than at the time of abandonment. This approach helps to minimize admixing and bulking of any contaminated soils.	Section 4 lays out the minimum requirements for an SSLA involving different activities and infrastructure. We understand that many activities may occur concurrently and do not expect the same cost to appear twice in the same SSLA.
The requirements regarding the credits applied for scrap metal and salvage value in sections 4 and 8 appear to be inconsistent.	We corrected the inconsistency.
Could you define care, custody, suspension, and abandonment applicable to liability estimates?	Section 4 of <i>Directive 001</i> details care and custody activities that must take place during suspension and abandonment. This includes managing hazards on site to protect public safety and the environment. The tasks and their associated costs may vary site by site.
Unless the estimate is being generated for a potential problem site, the “Well Suspension” section of the directive represents a double-count of costs as this is covered in Directive 006. It is redundant to include it in a facility suspension plan.	Well suspension tasks may apply to wells identified as problem sites, and a well licensed under the <i>Geothermal Resource Development Act</i> or <i>Minerals Resource Development Act</i> . The AER does not expect the same cost to appear twice in the same SSLA.
Recommend the AER detail what type of reporting is required under weekly on-site security inspections and monthly reporting.	The expected outcome is to manage on-site hazards to protect public safety and the environment. The appropriate reporting level will vary depending on the specific situation. The directive cannot anticipate all possible circumstances. If you have questions about your specific site, please contact us at ssla@aer.ca .
Not all pipelines are removed, and many are abandoned in place. But the draft directive implies pipelines must be removed.	We revised section 4 of the directive to consider that not all pipelines may be removed.

Stakeholder Feedback – Issue	AER Response
3. Problem Sites	
<p>Recommend the AER revise the use of term “problem site” as defined in <i>Directive 006</i> because the criteria for classifying problem sites are linked to the licensee liability rating (LLR) values, which are known to be inaccurate and require updating.</p> <p>Recommend the AER redefine “problem sites” because sites with higher-than-normal liability are not necessarily problem sites. Referring to high-cost reclamation sites as “problem sites” is inappropriate.</p>	<p>The recommendation is noted.</p> <p>As we continue to implement the new <i>Liability Management Framework</i>, further revisions will be made to liability-management-related directives in phases as we transition away from the LLR program and implement the programs outlined in <i>Directive 088</i>.</p>
<p>Why are there no downhole (vent-flow and cement top) triggers for SSLA?</p>	<p>A site may be nominated as a potential problem site for conditions related to abandonment such as age of a well, well construction (e.g., low top of cement), well integrity, depth, and other factors that the AER deems appropriate.</p>
<p>Please provide additional clarity on when and how a site will be nominated as a potential problem site and an SSLA required.</p> <p>Acquisitions and divestitures are negatively impacted if the AER assigns “problem site” classifications at the time of licence transfer.</p>	<p>The conditions outlined in <i>Directive 001</i> are examples that may result in a site being identified as a potential problem site. However, the AER may also consider other factors that it deems appropriate when identifying a potential problem site.</p> <p>A licensee may voluntarily inform the AER of a potential problem site and propose its own schedule for completing an SSLA under <i>Directive 001</i>. This self-disclosure of a potential problem site by a licensee enables the AER to maintain a more comprehensive inventory of higher liability sites. The details of this process are outlined in <i>Directive 006</i>, appendix 5, section 2.6.2, “Voluntary Disclosure of a Potential Problem Site.”</p> <p>If the liability reflected in the AER’s system is accurate and up to date, then the likelihood of acquisition and divestitures being impeded is minimized.</p>
<p>The use of the word “reclamation” infers a specific action to remove sites from the “problem site list.” However, actions such as remediation, site-specific assessments, and partial decommissioning might also reduce the liability on a site to below the threshold.</p>	<p>The recommendation is noted.</p>

Stakeholder Feedback – Issue	AER Response
4. Estimating Remediation Costs	
Evaluating reclamation requirements at a site is outside of the scope of a Phase 1 ESA, as described in the <i>Alberta Environmental Site Assessment Standard</i> .	We revised section 5 of the directive to distinguish between the Phase 1 ESA required for assessing contamination-related liability and the information that is required to develop a reclamation plan as part of the assessment of reclamation liability.
Recommend the AER improve clarity regarding the use of field screening to support a Phase 2 ESA, specifically whether field screening of areas of potential environmental concern (APECs) is sufficient for concluding non-contamination and removing liability.	Section 5.1.2 of the directive states that delineation <i>may</i> be supported by field screening techniques. In accordance with the <i>Alberta ESA Standard</i> , the sampling and analysis of soil, surface water, groundwater, and sediment must be carried out using proper field methods, analytical procedures, and with the use of an accredited laboratory.
Recommend the AER clarifies how to use the Tier 2 guidelines for SSLAs.	<p>Under section 2.3 of the <i>Remediation Regulation</i>, a substance release to soil or groundwater must be remediated to meet the requirements of the Tier 1 guidelines.</p> <p>Alternatively, as per section 2.4 of the <i>Remediation Regulation</i>, a person may remediate an area of land or site in accordance with the Alberta Tier 2 guidelines if the AER is satisfied that a level of protection equivalent to the Tier 1 guidelines has been reached.</p> <p>For a site where an SSLA is being conducted, the SSLA cannot be based on ESA work that is yet to be completed, as the outcome of such work is unknown.</p> <p>We revised section 5.2 of the directive to better describe how, where Tier 2 guidelines have been used to assess impacted volumes for SSLA purposes, reports demonstrating that work can be submitted to the AER.</p>
We support the AER's inclusion of Tier 2 options under section 2.4 of the <i>Remediation Regulation</i> .	The feedback is noted.

Stakeholder Feedback – Issue	AER Response
<p>Delineating contamination often involves several rounds of fieldwork and can take a great deal of time.</p> <p>Thorough investigation of groundwater and deeper aquifer can take a year or more with multiple visits and is not always based on a single intrusive investigation event. This may not be feasible for asset transactions and may delay the current timelines for SSLA creation when requested by the AER.</p> <p>Assessing the next water-bearing zone if there is groundwater contamination the uppermost aquifer is expensive, complex, and may require multiple sampling events and should not be a requirement of an SSLA. Typically, groundwater impacted is perched or unconfined. Drilling to a confined aquifer in these cases is not necessary and may have inherent risk.</p> <p>Section 5.1.2.1 of the draft directive requests affected volumes but is not specific as to the method. Recommend the AER is more specific on volume calculation methodologies.</p>	<p>As described in the Alberta Tier 1 guidelines, when soil or groundwater is found to contain contaminant concentrations in excess of Tier 1 (or Tier 2 guidelines using the pathway exclusion approach), a delineation program must be implemented. The delineation program must identify both the horizontal and vertical extent of contaminant concentrations.</p> <p>Section 5.1.2.2 of the directive contemplates situations where liability issues cannot be sufficiently evaluated. If delineation is not yet adequately complete, it is expected that this is described in the ESA reports and reasonable contingencies are included in the SSLA. As the understanding of the site is refined, an updated SSLA can be submitted to the AER at any time.</p> <p>Rationale must be provided to support professional judgement used in volume calculation methodologies. Comments on the opportunity to be more specific on methods to estimate volumes of affected groundwater have been noted for consideration in future iterations of <i>Directive 001</i>.</p>

Stakeholder Feedback – Issue	AER Response
<p>Regarding determination of soil density:</p> <ul style="list-style-type: none"> • Recommend keeping the requirement in the current version of the directive, specifically allowing for lab determination of soil density. • Clarify why section A2.6(8) was changed to not allow for a site-specific bulk density. • Recommend considering an industry-standard in situ density measurement technique should be available for all drill-rig styles, including simple auger. The act of disturbing soil for a sample can change the density, and in situ density and bulk density measurement by the labs can vary in technique between the labs. • Recommend removing requirements 28 and 29 as the prescription of in situ density is not reasonable or standard practice, and it may cause incorrect application of soil densities that might inflate remedial costs. 	<p>The existing requirements in section 5.1.2.1 have been modified to allow flexibility in the method used to determine soil density.</p>
<p>Regarding the assessment of groundwater:</p> <ul style="list-style-type: none"> • The evaluation of communication between aquifers and characterization of the lower groundwater quality and flow characteristics is a complex study that requires significant time and cost for licensees, making it difficult to meet SSLA timelines. The study is to determine potential impact on the domestic use of aquifer (DUA), and a similar methodology to tier 2 DUA elimination can be applied to assess underlying soil conditions. If sufficient separation can be confirmed, drilling to a deeper aquifer is unnecessary. • Recommend the AER, instead of applying new requirements for hydrogeological assessments, refer to the methodology used for tier 2 DUA exclusion principles. 	<p>The assessment may be used for the SSLA if the work has been completed in accordance with the <i>Alberta Tier 2 Soil and Groundwater Remediation Guidelines</i> and demonstrates that</p> <ul style="list-style-type: none"> • groundwater bearing zones do not meet the definition of a “domestic use aquifer” or • that there is a protective barrier unit present

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The volume of groundwater required for the design and engineered capacity of the treatment system should not be required for groundwater monitoring.	We revised section 5.2 of the directive.
The use of “must” statements in the directive limits use of a professional’s discretion to optimize remediation costs	<p>As described in section 5 of the directive, an estimate of costs must include the remediation and reclamation in a predictable and expedient manner of all directly affected land to a state where the site may be eligible for a reclamation certificate.</p> <p>We do not view the context and purpose of an SSLA as limiting an environmental professional’s ability to bring their competence to the estimation of liability costs.</p>
5. Estimating Reclamation Costs	
What’s the scope for Phase 1 ESA?	The directive has been updated to separate the Phase 1 ESA that is required as part of the assessment of contamination-related liability and the pre-reclamation assessment that is required as part of the assessment of reclamation liability. Section 5.1.1 contains the scope for Phase 1 ESA.
<p>Section 5.3 of the new edition of the directive refers to replacing both subsoil and topsoil during reclamation. However, section A1.7.2 of the 2012 edition of the directive indicated only topsoil replacement.</p> <p>How is subsoil being defined – is this only applicable for newer facilities, wells, or pipelines where subsoil was previously salvaged, or does it refer to unaffected overburden salvaged during remediation works? Backfill material has already been accounted for under remediation costs.</p>	<p>The list of reclamation requirements in section 5.3 of the directive has been reordered to reflect a usual sequence of events.</p> <p>The item regarding the replacement of subsoil and topsoil is included as it relates to restoring the site to equivalent land capability required to be eligible for a reclamation certificate. This may include situations where subsoil has been salvaged as part of initial construction activities.</p> <p>We do not expect the same cost to appear twice in the same SSLA. Where the replacement of non-impacted overburden material to backfill excavations has been included in remediation costs, this does not need to be included in reclamation costs.</p>
Section 5.3 of the draft directive refers to removal of access roads. However, removal of access roads is not always required.	<p>If a licensee intends to leave improvements in place and has an appropriate release from reclamation obligations in hand, this may be provided as supporting documentation for an appropriately scoped SSLA. In the absence of such an agreement, the expectation is that costs for removal of access roads and other improvements are to be included in the SSLA.</p> <p>Further information on the reclamation process is available on the AER website: https://www.aer.ca/regulating-development/project-closure/reclamation/oil-and-gas-site-reclamation-requirements/reclamation-process-and-criteria-for-oil-and-gas-sites.</p>

Stakeholder Feedback – Issue	AER Response
6. Submission Mechanisms and Review Process for Supporting Documentation	
<p>If documents are being submitted in OneStop, does this information still all need to be sent to the AER via email as well? If the files are large, will OneStop handle these or do they need to be submitted both by email and OneStop to ensure receipt.</p> <p>What's the intent of submission requirement in section 5.2 of the draft directive? Why is the submission through OneStop not through the SSLA process?</p>	<p>The directive has been modified to clarify the submission process.</p> <p>We do not expect or require contamination management reports that are required under the <i>Remediation Regulation</i> and submitted via OneStop be resubmitted as part of the supporting documentation for an SSLA. The attachment size restrictions in the OneStop system are higher than most email systems.</p> <p>SSLA submissions should include reference to OneStop Submission ID numbers for any supporting documentation.</p> <p>See the following for additional information:</p> <ul style="list-style-type: none"> • https://www.aer.ca/regulating-development/project-application/onestop • OneStop Quick Reference Guides for Contamination Management • Remediation Pages on AERs Website • AER Manual 021: Contamination Management
<p>AER review timelines of Tier 2 site-specific risk assessments are a concern when attempting to close license transfers.</p>	<p>An SSLA and supporting documentation may be submitted to the AER at any time, including in advance of a proposed license transfer transaction.</p> <p>Tier 2 site-specific risk assessments to be referenced in SSLAs are submitted with a Record of Site Condition. The AER's internal review timeline for Record of Site Condition submissions is a target of 60 business days. If a licensee would like to request an expedited review turnaround time for submitted information, an email referencing the OneStop submission ID and a rationale for the request may be emailed to CSUsubmissions@aer.ca.</p>
<p>Could you confirm that the SSLA report must be submitted to the AER? Not as specified in the current version of the directive, just forms A through F with reports to be submitted if requested by the AER for audit purposes?</p>	<p>The SSLA report must be submitted. Supporting reports required by the <i>Remediation Regulation</i> must be submitted with a OneStop Record of Site Condition. Rather than resubmitting these reports, the OneStop submission ID numbers should be referenced in SSLA submissions.</p>

Stakeholders Who Submitted Feedback (in alphabetical order)

Advisian

ARC Resources

Canadian Natural Resources Limited

Kiwetinohk Energy Corp

Obsidian Energy

Pine Cliff Energy

Rife Resources Ltd.

Secure Energy

SKYE AR

SWAT Consulting Inc.