

Frequently Asked Questions

Temporary Surface Pipelines

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The AER is looking at expanding the use of temporary surface pipelines (TSPs) as a regulated alternative for the transportation of various types of water, including some wastewaters.

TSPs can currently be used to move high-quality water for oil and gas development. They transport water from its source, such as a water body or a water storage area, to where it is needed for energy development, such as a well that will undergo hydraulic fracturing. Temporary surface pipelines lay on the surface, commonly following existing roads or other linear structures. While not presently permitted, TSPs could also be used to transport other water (and wastewater) to support energy development.

Q1. What exactly is a TSP and how are they used on the landscape?

A1. TSPs range from flexible, lay-flat hoses to jointed aluminum pipe to heavy-wall polyethylene pipe. They can be made from various materials, like polyvinyl chloride (PVC), rubber, thermoplastic polyurethane (TPU), or high-density polyethylene. Flexible pipelines are reinforced with fibres of polyester, Kevlar, glass or carbon-fibre. Depending on the material, pipeline sections are connected and sealed by various means, such as pipe couplings, heat fusion bonding, or welded joints.

They can be rolled up for easier storage and transportation and deployed using trucks or bobcats to unroll the pipelines quickly and with minimal disturbance to the landscape. Depending on the distance and topography, pumps may be required along the route to keep the water moving to its destination.

Q2. What kind of water will be in these lines?

A2. To facilitate the conservation of high-quality water (e.g., rivers, lakes, shallow groundwater), the AER is considering expanding the use of TSPs to include transportation of lower quality water like deeper groundwater and various wastewater, such as municipal and industrial treated effluent, produced water, and hydraulic fracturing water that returns to the surface after fracturing is complete. These types of water are not suitable for most uses, but can often be used for oil and gas development.

Regulatory requirements will increase for lower quality water to provide additional protection.

Q3. Why doesn't industry use permanent, underground pipelines for transporting water?

A3. Industry has used permanent underground pipelines to transport water for long-term needs. However, they are expensive, result in significant ground disturbance, and must undergo abandonment procedures when no longer needed.

TSPs are more useful for shorter-term activities and for activities where a buried pipeline would be considered unpractical—such as to supply water to individual hydraulic fracturing well sites.

TSPs have a smaller environmental footprint than permanent pipelines since they do not require trenching, require minimal vegetation clearing, and can often be located on an existing pipeline right-of-way or in the ditch of a road.

Q4. Does this mean fewer rules for industry to follow?

A4. No, an outcome of this work will be a regulatory process that is comprehensive and clear. Before a TSP is installed, a company must ensure the design, route selection, operation, and maintenance of the line meets AER requirements.

As part of the AER's TSP project, we are developing additional regulatory requirements that will apply to the movement of lower quality water.

Q5. Does this mean industry will be using more water?

A5. We do not expect a significant change in the total volume of water used. However, we do anticipate changes in the types of water being used. Currently, only high-quality water (essentially, freshwater) can be moved through TSPs, so lower quality water and wastewater are usually moved by trucks, which can mean hundreds of trips to and from one site.

This initiative is to provide industry with options for transporting water and wastewater in different ways.

TSPs can reduce industry's use of high-quality water by providing an effective, efficient, and flexible method of moving lower quality water to where it is needed. This supports conservation of high-quality water by facilitating reuse and recycling of waste waters.

Q6. How can I find out if one of these is planned near me? What if I have concerns?

A6. The AER is still determining the notification and approval processes for TSPs, as well as how stakeholders can express concerns about proposed TSPs. Operational concerns can be brought to the attention of the company operating the TSP or the AER's emergency and complaint line at 1-800-222-6514

Q7. Will TSPs have any benefits for Albertans and the environment?

A7. These surface lines can reduce industry's use of high-quality water by enabling an effective, efficient, and flexible method of moving lower quality water or wastewater to where it is needed. Additionally, they will reduce the need for trucks to transport water, which means decreased emissions, improved safety on Alberta roads, and less dust, noise, and road maintenance. TSPs will require minimal disturbance to land and vegetation compared to a traditional buried pipeline.

Q8. Will TSPs be a nuisance for people to get around?

A8. Companies will need to select appropriate routes to ensure other users of the land are minimally impacted. This could mean constructing ramps over TSPs where they cross driveways, access lanes, and trails. They also will need to obtain appropriate permissions to cross private or public land and monitor their TSPs closely.

Q9. How can we be confident these are a good idea?

A9. The AER has been working on this project for several years and has considered previous feedback from stakeholders including industry, landowners, municipalities, and environmental groups. Based on the research and analyses conducted, the AER is confident that the proper requirements and rules can be put in place.

While there could be releases from TSPs, regulatory requirements will be put in place to minimize negative impacts. We are seeking a balance between conserving high-quality water (by allowing options for transporting lower quality water/wastewater) and preventing negative impacts to the environment (from possible releases).

TSPs can be tested and visually inspected to ensure there are no leaks before being put into use. They can also be monitored and visually inspected while in use. Once the transportation of water is complete, TSPs can be flushed out with clean water and rolled up again.

Q10. Where will TSPs be used?

A10. TSPs will predominantly be used by companies to support hydraulic fracturing operations and therefore we anticipate seeing TSPs in areas where this type of work occurs.

Q11. Once a TSP is installed, how can we know it is being operated safely?

A11. The AER holds industry accountable; therefore, TSPs will be part of the AER's [compliance program](#) and subject to inspections and audits like any other industry activity.

Q12. If there is a leak or spill, how much damage could it cause to the land, water, and wildlife?

A12. This a big consideration for the AER, which is why there will be controls and requirements for industry to follow. Requirements will be more stringent for the lower-quality waters, and could include things like route selection, engineering controls, and additional monitoring. With the proper controls in place, release of lower-quality waters should occur less often and be quickly detected.

TSPs are visible on the landscape, which increases the likelihood that a leak or break will be identified quickly. This will limit the volume of water or wastewater released and reduce potential environmental impacts.

Q13. How does the TSP initiative coincide with the AER's work with water conservation and industry reporting?

A13. TSP aligns with the Government of Alberta's direction on the conservation of water resources by enabling the transport and use of alternative waters, such as produced water and water-based flowback in oil and gas operations. This will reduce the amount of high-quality water used for such purposes.

Q14. Isn't hydraulic fracturing risky? Does using this recycled water make it riskier?

A14. Hydraulic fracturing has been used in more than 180 000 wells in Alberta since the 1950s. The AER has many requirements associated with [hydraulic fracturing](#) operations and conducts regular inspections and audits to make sure these requirements are followed. To learn more about how hydraulic fracturing is regulated in Alberta, please watch the [Is Fracking Safe?](#) video.

Reusing fluids that are destined for disposal reduces industry's reliance on high-quality water. With the proper safety controls in place, such as monitoring by industry, transporting alternative waters represents a low risk.

Q15. How long will these surface pipelines be on the landscape?

A15. Unlike permanent pipelines that remain underground, TSPs may only be used for a few weeks or months, which is why they're called 'temporary.' We expect most TSPs will be around for a few months at a time.

Q16. What kind of liability is associated with TSPs?

A16. Given the temporary nature of TSPs and the fact that no ground disturbance is required, removal of the lines is quite straightforward. If a release from a TSP does occur, the company must manage and clean up any contamination as soon as possible, as required by the *Environmental Protection and Enhancement Act*.

Q17. Will industry have an easier time getting access to water as a result of this work?

A17. No. Our requirements for water access will not change as a result of TSPs. All requirements under the *Water Act* remain.