

Commenter	Comment #	Comment	Action	DWQ Response
Friends of Great Salt Lake	1	<p>However, FRIENDS is writing to express concern that the drinking water limit of 70 nanograms per liter (ng/L) is far exceeded by contamination measures at the airport adjacent to Great Salt Lake, where PFAS levels are measured at 139,000 parts per trillion. In comparison to other states that aggressively protect their populations against threats of PFAS contamination, Utah's reliance on even the EPA's standards of 70 ng/L appears to allow too much room for potential contamination. Other states, such as Michigan, have reduced allowable PFAS contamination levels in drinking and groundwater far below the EPA's acceptable limits. Michigan has set drinking water standards for PFOA and PFOS at 9ng/L. Under Michigan's groundwater standards, the clean-up criteria threshold is 8 ppt for PFOA and 16 ppt for PFOS.</p>	None	<p>Thank you for your comments and concern for the quality of Utah's waters and associated beneficial uses. The current strategy is intended to evaluate the presence and magnitude of potential PFAS contamination in order to protect human health. During this scoping, DEQ is adopting 70 ppt as a screening level for total PFAS compounds (not just PFOA and PFOS) discovered above the reporting limits. For instance, this includes a total of over 25 analytes under the first phase of drinking water investigation. Future efforts will evaluate the suitability of the EPA's Lifetime Health Advisory of 70 ppt in terms of drinking water limits or ongoing regulatory enforcement of sources once this evaluation is completed.</p>

Friends of Great Salt Lake	2	Further, the breadth of contamination measured at the Salt Lake International Airport (139,000 ppt) leaves FRIENDS with significant concern that this contamination may migrate off-site, impacting Great Salt Lake's biological integrity. Relevant to the airport contamination, what safety and surveillance precautions are the State taking to track and monitor the human and animal health and safety, and the biological integrity of areas both on and off-site?	Evaluate in future phases of monitoring	Although the discharge from the SLC airport occurred in the Surplus Canal during a storm event, subsequent downstream monitoring to assess the extent of the contamination on wetlands did not reveal widespread impacts. However, due to the persistence and potential bioaccumulation of these compounds, monitoring of PFAS compounds in biological tissue such as birds and fish, remains to be evaluated and we share your concern. Future phases of this strategy will prioritize sample efforts from areas such as those adjacent to known sources like the airport and training facility.
Friends of Great Salt Lake	3	It is disconcerting that no data is available regarding Utah industries that generate and discharge PFAS and that the public is left guessing which waterways may be contributing to contamination. The likely discharges into the Lake resulting from WWTP effluents into Blue Creek are of particular concern. Bear River Bay borders Willard Bay, the Bear River Migratory Bird Refuge, and the Ogden Bay Waterfowl Management Area. These areas receive significant recreational use and thus potential heightened exposure to recreationists. Further, these areas constitute critical environments for migratory birds, which are put at risk through bioaccumulation resulting from food sources contaminated by discharges into Blue Creek.	Evaluate in future phases of monitoring	DEQ does have very limited information of the potential contribution of wastewater effluent to surface water in the state and it is our intention to evaluate these sources in future phase of the strategy. As mentioned elsewhere, our first phase was intended to evaluate the risk to human health through drinking water sources and use that information to evaluate sources of contamination. It is apparent that waterfowl tissue analysis will provide similar screening information to guide future source evaluation as well as informing the public of the potential risk of waterfowl consumption. For this reason, we are modifying our strategy to prioritize sampling waterfowl near GSL for the next phase of the strategy.

Friends of Great Salt Lake	4	<p>FRIENDS is concerned that the high concentration of PFAS contamination in areas adjacent to Great Salt Lake and effluent discharges into the Lake are putting at risk the biological integrity of an ecosystem of global importance. The Victoria study analyzed waterfowl in waters with PFAs contamination levels far below those reported for Great Salt Lake in the Environmental Working Group and Department of Defense Reports. Given that the Victoria report resulted in the issuance of human health advisories, FRIENDS is concerned about the impacts of PFAS on the Lake's ecosystem and the human health impacts on the 14,000 duck hunters who rely on the Lake for sport and sustenance. Waterfowl hunters and their families are put at significant risk by PFAS levels at the Lake and the bioaccumulation of PFAS in waterfowl.</p>	Changes to timing of tissue analysis in Strategy	<p>As a terminal lake in an urban/industrial watershed, GSL has a high potential for harboring PFAS in surface and groundwater, as well as the biota that live there. This current objective prioritized the evaluation of risk to human health. Next, we plan on testing bird and fish tissue in an upcoming phase of the monitoring plan to evaluate the bioaccumulation of these compounds. While it may not be feasible, given limited resources, to monitoring the extent of the surface water of the lake, tissue analysis should indicate whether significant contamination has occurred. This may be the most efficient method of evaluating areas of concern for future evaluation of source identification and mitigation.</p>
Friends of Great Salt Lake	5	<p>FRIENDS requests the following for further review:</p> <ul style="list-style-type: none"> • Registration of industries and sources manufacturing, using, storing, and disposing of PFAS chemicals. • Generation of a publicly available databases of the industries and sources manufacturing, using and disposing of PFAS chemicals. 	None	<p>DEQ's initial evaluation of drinking water source areas at risk from PFAS contamination was limited to our current understanding of industry types likely to use these compounds in their processes due to a lack of reporting requirements. However, this summer the EPA instituted a new requirement for facilities manufacturing, processing, or otherwise using any of the 172 different PFAS compounds to submit Toxics Release Inventory (TRI) reports by July 1, 2021, for calendar year 2020. This information will be critical to understanding the risks of potential contamination and limiting</p>

				their impact on the environment.
Friends of Great Salt Lake	6	FRIENDS requests the following for further review: <ul style="list-style-type: none"> • A comprehensive review of PFAS contamination at the Great Salt Lake with analysis of PFAS levels in areas surrounding known contaminated areas along with an assessment of the potential for off-site migration. 	Evaluate in future phases of monitoring	See response to Comment 4
Friends of Great Salt Lake	7	FRIENDS requests the following for further review: <ul style="list-style-type: none"> • Analysis of PFAS contamination in waterfowl and other biological indicator species. • Analysis of potential exposures to recreationists with an emphasis on consumptive recreation such as hunting, which likely results in a greater risk of human exposure to PFAS chemicals. 	Evaluate in future phases of monitoring	As mentioned elsewhere, DEQ will be working with DNR staff to collect bird and fish tissue in the wetlands of GSL to determine if historic contamination has occurred. Furthermore, DEQ will engage with Department of Health and the Health Advisory Panel to evaluate the risk to human consumption and determine if consumption advisories are warranted.
Friends of Great Salt Lake	8	FRIENDS requests the following for further review: <ul style="list-style-type: none"> • Assessment of drinking and groundwater PFAS regulatory standards such as has been done in Michigan and other states to identify whether standards stricter than those set by the EPA should be in place. 	None	DDW appreciates this input and will consider this comment as we move forward.

Salt Lake City	9	<p>In 2013 for the EPA Third Unregulated Contaminant Monitoring Rule (UCMR3) sampling effort, we collected samples of our drinking water sources for PFAS and PFAS related chemicals (Table 1). Sampling did not detect any of the listed UCMR3 PFAS related chemicals. Salt Lake City is supportive of further efforts to protect public health and identify pollutants that could be a risk to public health, including PFAS. Therefore, we support the participation in research and studies performed by the Utah Department of Environmental Quality (DEQ), EPA, and other efforts.</p>	None	<p>DEQ appreciates Salt Lake City's comments and their proactive watershed protection programs and look forward to leveraging efforts to evaluate contaminants of emerging concern like PFAS. In addition, it should be noted that our first phase of sampling focused on drinking water that included over 25 analytes (compared to the 6 compounds investigated during the UCMR3) with significantly lower reporting limits which should provide assurances that we are identifying low level contamination where present.</p>
Salt Lake City	10	<p>Salt Lake City is supportive of efforts to further protect and steward our precious waterbodies, including the Jordan River and Great Salt Lake. We encourage efforts such as education and public engagement to prevent PFAS from entering waterbodies through nonpoint source pollution. We also are supportive of research and studies to help identify issues and solutions. Finally, we support education efforts for businesses and industries to identify sources of PFAS and the proper storage and containment of PFAS chemicals. This includes the implementation of Best Management Practices (BMPs) and a state-wide registry for facilities that store or use PFAS. Standards should address the reporting, disposal, and remediation of any spills of PFAS.</p>	None	<p>Again, DEQ values their partnerships with municipalities such as SLC and the role they play in educating their citizens on threats to our environment. Furthermore, through effective collaboration and coordination, we are able to address these threats through complementary programs that manage stormwater, wastewater, spills, and remediation efforts.</p>

Salt Lake City	11	<p>We feel the best and most effective approach to protect public health and the environment is the prevention of pollutants, including PFAS, from entering wastewater. We encourage education and engagement with industry on minimizing the use of PFAS and preventing these pollutants from entering wastewater. In order for Salt Lake City to regulate PFAS in wastewater, we need a regulatory framework for our Pretreatment Program. Therefore, we are supportive of the development of a regulatory framework that we can adopt.</p>	None	<p>As we fully implement the PFAS strategy to evaluate wastewater sources, we will be engaging municipalities both with regards to monitoring treatment facilities and developing guidance for pretreatment programs.</p>
Salt Lake City	12	<p>Salt Lake City requests that the Priority II phase of the PFAS Plan be further defined to allow stakeholders to plan for resource allocations in a responsible manner. For example, PFAS sampling at a POTW influent, effluent, and biosolids can be performed, and based on the analytical results, a risk-based determination can be made regarding further action or no further action. If necessary, further action steps should include evaluation of industries and/or other potential PFAS sources within the POTW's jurisdiction as well as education and introduction of PFAS related pollution prevention BMPs. Moreover, a state-wide requirement could be introduced for the registration of any entity that stores or uses PFAS in their facility. As stated above, this registration should also require standards regarding the capture and disposal of spilled or fugitive PFAS.</p>	None	<p>As we further develop future phases of the strategy, we will be engaging potentially affected municipalities to develop an action plan for interpreting results, evaluating risks, and taking actions to address potential sources. This summer, the EPA instituted a new requirement for facilities manufacturing, processing, or otherwise using any of 172 different PFAS compounds to submit Toxics Release Inventory (TRI) reports by July 1, 2021, for calendar year 2020. This information will be critical to understanding the potential sources and risk to our communities.</p>

Robert DeBirk	13	<p>PFAS contaminated ski wax: The plan focuses on drinking water and the potential for PFAS contamination resulting from manufacturing or disposal. While the plan lists manufacturing and disposal areas where monitoring and surveillance are to take place, there's no mention of potential contamination resulting from ski wax use. The plan addresses facilities that manufacture or dispose of items which may pose threats of contamination such as plastic bags, electroplating, rubber products, synthetic fibers, plastic molds, and doormats. However ski wax is also a known product containing PFAS. Since the Salt Lake City watershed contains a concentration of multiple ski resorts where ski wax is presumably used, it would make sense to similarly conduct monitoring and surveillance to identify potential PFAS contamination to the water supply resulting from this use. Has this issue been addressed at all or is there any intent to look at this item in the future?</p>	Evaluate in future phases of monitoring	<p>Since our first phases of the strategy evaluate risks to human health, our primary focus will be on testing drinking water and tissue (fish and waterfowl). If significant contamination is identified, we will evaluate potential sources for mitigation and regulation. As we develop future investigations to identify source areas of PFAS contamination we will make sure to incorporate your comments as a potential contributing source.</p>
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Robert DeBirk	14	<p>Fire Retardant. While the plan mentions the use of fire retardants at the SLC Airport and Hill Air Force Base, there's no discussion of the use of fire retardants in watershed areas. Has there been an analysis of PFAS levels in the fire retardants used to fight forest fires in area watersheds? If so, what were the results? What risk may be posed to SLC drinking water from the use of fire fighting retardants used or likely to be used in response to a wildfire? Is there any consideration for the use of fire retardants in the Central Wasatch watershed that are not forest fire-related? For instance, fire retardants used to fight automobile or home fires? Should the plan take into consideration this possible avenue of contaminating drinking water with PFAS?</p>	None	<p>Although we have not completed an analysis of forest fire retardants for PFAS, they are a different class of retardants that do not contain flourinated surfactants or PFAS. While we have not evaluated the effects of Class A foams used for forest fire supression, it is not within the scope of this strategy. We are currently not aware of the use of Class B foams in areas other than airports, military bases, or training facilities. Therefore, these would require a case by case investigation of their release if and when they occur.</p>
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Utah Waterfowl Association	16	<p>Utah has over 14,000 duck hunters who harvest over 200,000 ducks and geese annually, mostly from the Great Salt Lake and, to a lesser extent, Utah Lake. Hunters and their families and friends consume these ducks and geese. Although ducks and geese vary in size, a conservative average amount of meat per duck is half a pound and it is also a fair estimate that each hunter may feed four additional people waterfowl meat. In short, about 70,000 Utahns (including small children and pregnant women) consume 100,000 pounds or more of duck and goose meat each year. Given this, the brief mention of waterfowl is insufficient. It is also inadequate to simply note that EPA has not yet approved a waterfowl testing standard. Nine other states did not wait for EPA to develop a fish standard. Similarly, Utah should expeditiously move forward with testing so that the level of contamination, if any, can be determined and information can be provided to those consuming waterfowl. The state has already done this with mercury in waterfowl and issued first of its kind advisories relating to several species of waterfowl in Utah. This information is important to duck hunters and their families and guides what ducks they harvest and feed to their spouses, children, and friends. If there is PFAS contamination in waterfowl, Utah should consider this as it takes action to identify and regulate discharges and other forms of contamination.</p>	Changes to timing of tissue analysis in Strategy	<p>Since DEQ will be completing another round of tissue analysis for mercury and selenium from waterfowl around GSL over the coming year, this provides the opportunity to analyze waterfowl tissue for PFAS compounds. We agree with the comment that the lack of tissue standards should not be an impediment to sampling and informing the public of potential risk. Therefore, we will be proceeding with waterfowl and fish tissue analysis, first by developing a sampling plan in conjunction with the Department of Natural Resources, and once sample analysis is complete, working with the Department of Health and the Health Advisory Panel to evaluate risk and determine if health advisories are warranted.</p>
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