



CDPS Permit Public Comment Form

Please use this form to submit comments to the division on CDPS permits.

Permit Number:

CO0001147

Date

February 17, 2022

Comment Author/Permittee

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Please put your comments for each part of the permit on a new line. If this is a modification, please limit your comments to the scope of the modification. Once you have completed your comments please email to the permit writer with any supporting documentation.

Document (Permit, Fact Sheet, or WQA)	Part of the document. (For example, Permit Part I.E.a.VI)	Comment	Request: Specific change you are asking for
Fact Sheet	Part VI.B. at 27-33	<p>The Suncor Oil Refinery (Suncor) is a 98,000-barrel-per-day refinery spewing pollution into vulnerable, disproportionately impacted communities. Suncor has long flouted its water discharge permit requirements and has been subject to repeated enforcement actions. Although the Conservation and Justice Groups appreciate that the Water Quality Control Division (Division) has made great strides in considering community input and crafting a draft permit for Suncor that is more considerate of human and ecological health than prior permits, the Division must do more to protect communities from Suncor's discharges of toxic chemicals, including per- and polyfluoroalkyl substances (PFAS), benzene, and other pollutants. The Division must therefore strengthen the requirements in Suncor's permit to ensure that surrounding communities do not suffer any further burdens at the hands of this facility.</p> <p>The communities that surround the Suncor refinery comprise the most polluted residential neighborhoods in the United States, with the highest "environmental hazard risk" of over 8,600 zip codes, according to a 2017 study. The Denver Channel, <i>Denver Zip Code Named the Most Polluted in the Country</i> (Feb. 16, 2017, 6:55 PM) (attached as Exhibit 1).¹ The Globeville-Elyria-Swansea neighborhoods, located just south of Suncor, are built on top of two Environmental Protection Agency (EPA) Superfund sites. Immediately to the north of Suncor lies the southern portion of Commerce City, which is built on top of yet another Superfund site. These neighborhoods surround the cross-roads of two interstate highways, one of</p>	The Division must strengthen the requirements in the permit, as discussed below, to ensure that it adequately protects the state's surface waters and surrounding communities from the dangers posed by this facility.

¹ Available at <https://www.thedenverchannel.com/news/local-news/denver-zip-code-named-the-most-polluted-in-the-country>.

		<p>which is now undergoing a massive expansion project that will increase the width of the highway from six to eight lanes. This expansion project has disturbed the contaminated soil and swallowed the local school playground. Passenger and freight trains travel through these neighborhoods at all hours. There is a famously odoriferous pet food factory, multiple marijuana warehouses, and a plethora of other polluting industries located in and around these communities. Gretchen Armijo & Gene C. Hook, Denver Dep’t of Env’t Health, <i>How Neighborhood Planning Affects Health in Globeville and Elyria Swansea</i> at 24 (2014) [hereinafter “Health Impact Assessment”] (attached as Exhibit 2). Suncor itself is responsible for not just water pollution in these communities, but also staggeringly high levels of air pollution. <i>See id.</i> at 21 (noting that Suncor’s planned air emission events and flaring are among the “significant” air pollution problems in the area). The cumulative pollution burden in these communities is especially concerning in the face of a global pandemic, considering that both short- and long-term exposure to air pollution contributes “significantly” to higher rates of COVID-19 infections and deaths. Nurshad Ali & Farjana Islam, <i>The Effects of Air Pollution on COVID-19 Infection and Mortality—A Review on Recent Evidence</i>, <i>Frontiers Pub. Health</i>, Nov. 2020, at 1 (attached as Exhibit 3).²</p> <p>Not surprisingly, Elyria, Swansea, and Globeville, have among the highest rates of several diseases associated with environmental pollution, including asthma, cancer, cardiovascular disease, diabetes, and obesity. <i>Health Impact Assessment</i> at 16-17. A Health Impact Assessment, conducted by the Denver Department of Environmental Health, found that emergency room rates for child asthma-related events are 39 percent higher for these neighborhoods than any other Denver neighborhood. <i>Id.</i> at 16. These problems are only getting worse: between 2006-2010 and 2013-2017, Elyria-Swansea’s asthma hospitalization rate increased by 41 percent, and was 75 percent higher than the state average during the 2013-2017 period. <i>See</i> Kevin Hamm, <i>Asthma in Denver: Search Rates by Neighborhood</i>, <i>Denver Post</i> (June 30, 2019) (attached as Exhibit 4).³ Residents of south</p>	
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² Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7725793/pdf/fpubh-08-580057.pdf>.

³ Available at <https://www.denverpost.com/2019/06/30/denver-asthma-rates/>.

		<p>Commerce City likewise suffer from “more serious respiratory problems than the rest of the state.” Colo. Env’t Pub. Health Tracking, Community Health & the Environment in Commerce City-North Denver (last visited Feb. 7, 2022) (attached as Exhibit 5).⁴</p> <p>The location of these burdens is no accident. The residential neighborhoods of Elyria, Swansea, Globeville, and south Commerce City have long been treated as a sacrifice zone for pollution. Elyria-Swansea’s population is 81 percent Latino, with 20 percent of residents living below the poverty line and 27 percent non-English speaking adults. Shift Research Lab, <i>Elyria Swansea</i> (2017 estimates) (last visited Jan. 31, 2022) (attached as Exhibit 6).⁵ Globeville is 57 percent Latino, with 34 percent of residents living below the poverty line and 17 percent non-English speaking adults. Shift Research Lab, <i>Globeville</i> (2017 estimates) (last visited Jan. 31, 2022) (attached as Exhibit 7).⁶ And South Commerce City is 65 percent Latino, with 24 percent of the population living below the poverty line and 15 percent non-English speaking adults. Shift Research Lab, <i>South Commerce City</i> (2017 estimates) (last visited Feb. 7, 2022) (attached as Exhibit 8).⁷ By comparison, the Denver Metro region as a whole is 22 percent Latino, with 11 percent of residents living below the poverty line and 4 percent non-English speaking adults. <i>Id.</i> The census blocks surrounding Suncor are classified as Disproportionately Impacted Communities (DICs) under Colorado’s landmark environmental justice statute, which recognizes that historical systems and practices have caused racial and socioeconomic inequity in pollution burdens. See Colo. Dep’t Pub. Health & Env’t, <i>Data Viewer for Disproportionately Impacted Communities in Colorado</i> (last visited Jan. 31, 2022) (displaying DICs in Colorado) (attached as Exhibit 9)⁸;</p>	
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⁴ Available at <https://coepht.colorado.gov/ccnd>.

⁵ Available at <https://denvermetrodata.org/neighborhood/elyria-swansea>.

⁶ Available at <https://denvermetrodata.org/neighborhood/globeville>.

⁷ Available at <https://denvermetrodata.org/neighborhood/south-commerce-city>.

⁸ Available at https://cohealthviz.dphe.state.co.us/t/EnvironmentalEpidemiologyPublic/views/EJActDICommunities-Public/HB21-1266DICommunities?%3AshowAppBanner=false&%3Adisplay_count=n&%3AshowVizHome=n&%3Aorigin=viz_share_link&%3AisGuestRedirectFromVizportal=y&%3Aembed=y.

		<p>Colo. House Bill 21-1266 § 2(2)(b)(I) (recognizing environmental racism). Similarly, EPA’s EnviroScreen tool shows that the neighborhoods within a 1-mile radius of Suncor are in the 92nd or higher percentile for all 11 indicators of environmental exposure that EPA tracks, as compared to other communities in Colorado. See U.S. Env’t Prot. Agency, EJSCREEN Report for 1 Mile Ring Centered at the Suncor Refinery (last visited Feb. 7, 2022) (attached as Exhibit 10).⁹ The households within that same 1-mile radius rank in the 93rd percentile statewide for people of color population, 96th percentile for low-income population, and 96th percentile for population with less than a high school education. <i>Id.</i></p> <p>Suncor’s long history of compliance problems and violations of its water discharge permit has only worsened the pollution burdens borne by these communities. Suncor reported a whopping 28 spills over the term of its current discharge permit from 2011 to 2021. Fact Sheet at 27. Those spills included: (1) a single release of more than 50,000 gallons containing benzene, a toxic chemical; and (2) a separate discharge of 600 pounds of wastewater sludge. Colo. Water Quality Control Div., Suncor Water Quality Related Spill Summary Report at 1 (attached as Exhibit 11). Just last year, Suncor spilled oily muck into Sand Creek twice within eight days. Bruce Finley, <i>Petrochemicals in Water Near Suncor Refinery Raise Concern About State of Underground Wall</i>, Denver Post (June 7, 2021) (attached as Exhibit 12).¹⁰ These issues are so problematic at the facility that it took the Division seven pages just to <i>summarize</i> Suncor’s compliance history in the draft Fact Sheet. Fact Sheet at 27-33 (describing section as a “non-comprehensive” overview of Suncor’s compliance and enforcement history).</p> <p>Suncor’s continued violations are unsurprising in light of its longstanding culture of disregard for public health and safety. A recent independent report on Suncor detailed a culture resulting in “tolerance of higher risk</p>	
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⁹ Available at https://ejscreen.epa.gov/mapper/mobile/EJSCREEN_mobile.aspx?geometry=%7B%22x%22:-104.944444,%22y%22:39.805556,%22spatialReference%22:%7B%22wkid%22:4326%7D%7D&unit=9035&areatype=&areaid=&basemap=streets&distance=1.

¹⁰ Available at <https://www.denverpost.com/2021/06/07/oil-suncor-refinery-water-chemicals/>.

		<p>activities” and “processes that frequently underestimate[] risk” in addition to issues with accountability. See Neal Walters, Kearney, Suncor Commerce City Refinery – Third-Party Root Cause Investigation at 16, 23-24, 26-27 (Apr. 12, 2021) [hereinafter “Suncor Root Cause Investigation”] (attached as Exhibit 13). While the report focused on the root causes of Suncor’s Clean Air Act Title V permit violations, Suncor has exhibited the same disregard for health and safety when it comes to its water discharge permits. Indeed, EPA recently identified similar issues with Suncor’s compliance with its water permits. See U.S. Env’t Prot. Agency, Region VIII Water Branch, Clean Water Act Compliance Inspection Report, NPDES Permit No. CO0001147 (Sept. 2, 2021) [hereinafter “EPA Process Water Compliance Report”] (attached as Exhibit 14); U.S. Env’t Prot. Agency, Region VIII Water Branch, Clean Water Act Compliance Inspection Report, NPDES Permit No. COS000009 (Sept. 2, 2021) [hereinafter “EPA Stormwater Compliance Report”] (attached as Exhibit 15). In just one example, EPA found that Suncor had failed to even design “the <i>minimal</i> stormwater controls required by the permit,” let alone maintain those controls. Fact Sheet at 29 (emphasis added); see also EPA Stormwater Compliance Report at 10 (Observation 1). Egregiously, Suncor has not even been using accurate maps of the facility’s stormwater outfalls. EPA Stormwater Compliance Report at 16 (Observations 12 & 13). And in response to its excessive number of spills, Suncor has shown no appetite for rectifying its shortcomings, failing to implement any “clear and definitive steps or corrective actions.” EPA Process Water Compliance Report at 8 (Observation 2). As demonstrated by its numerous violations, Suncor’s culture of risky and unsafe operations extends to all aspects of the facility’s pollution management.</p> <p>Community voices have been clear: in light of Suncor’s impact on the surrounding environment and neighborhoods, restorative justice is needed to heal the damage the facility has caused to air, lands, and waters. Stringent limits on Suncor’s future pollution, while critically necessary, are still insufficient to protect communities’ health. Bold action that takes into account the legacy of environmental racism is needed to address Suncor’s decades of pollution and restore the health, well-being, and quality of life in surrounding communities. The Colorado Department of</p>	
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Fact Sheet	Part VI.A. at 27	<p>Suncor has noted that its discharges are not the only source of PFAS—namely, PFOA and PFOS—present in the area, and that Sand Creek is also impacted by other sources of PFAS upstream of the Suncor facility. Fact Sheet at 27. In response, the Division explained that the existence of upstream pollution sources does not excuse downstream dischargers, like Suncor, from compliance with the requirements of the Clean Water Act and the Colorado Water Quality Control Act. <i>Id.</i> The Conservation and Justice Groups support the Division’s exercise of authority under the Clean Water Act and Water Quality Control Act to impose limits and other controls on Suncor’s PFAS discharges.</p> <p>As the Division explained in the Fact Sheet, Suncor does not have to be the only source of PFAS contamination in Sand Creek and the South Platte River to be subject to limitations on its discharges. It is a basic requirement of the Clean Water Act and Water Quality Control Act that <i>all</i> facilities discharging pollutants into State surface waters must obtain and comply with permits that regulate those discharges. 33 U.S.C. § 1311(a) (prohibiting the discharge of “any pollutant by any person” except in accordance with requirements and limitations set forth in the Clean Water Act, including requirements to obtain and comply with water discharge permits); <i>id.</i> § 1342(a) (providing for the issuance of permits for the “discharge of any pollutant, or combination of pollutants”); C.R.S. § 25-8-501(1) (providing that “[n]o person shall discharge any pollutant into any</p>	<p>Because Suncor is a significant source of PFAS pollution, the Division has ample authority under the Clean Water Act and Water Quality Control Act to impose stringent limits and controls on Suncor’s PFAS discharges. The Division should, thus, exercise its authority to impose more stringent and additional limits on Suncor’s PFAS discharges as discussed below.</p>

		<p>state water from a point source without first having obtained a permit from the division for such discharge”).</p> <p>Moreover, and as discussed in more detail below, Suncor’s PFAS discharges into state waters—i.e., Sand Creek and the South Platte River—are significant. Indeed, the Division stated in response to Suncor’s discussion of other PFAS sources that “Suncor is clearly a contributor of additional PFAS given . . . the extensive use of PFOA/PFO[S] firefighting foam by Suncor over time.” Fact Sheet at 27. Suncor has confirmed that it is currently storing 28,055 gallons of PFAS-based Class B firefighting foam, some of which is made up of highly toxic long-chain PFAS, like PFOA, PFOS, and PFNA. <i>Id.</i> at 24. And Suncor continues to use other PFAS-containing firefighting foam that is made up of shorter-chain PFAS. <i>Id.</i> Additionally, there is a large plume of groundwater that lies below the Suncor facility that is contaminated with a number of pollutants, including PFAS. <i>See, e.g., id.</i> at 25. Suncor’s monitoring data for groundwater wells on and surrounding its property consistently shows that this groundwater plume contains extremely high levels of PFAS. For instance, between the years of 2018 and 2020, Suncor recorded shockingly high levels of PFAS in its contaminated groundwater, with readings of 350 parts per trillion (ppt) of PFOA, 110 ppt of 8:2 FTS, 130 ppt of PFNA, 2,900 ppt of PFHxS, 440 ppt of PFBS, and 10,000+ ppt of PFOS. <i>Id.</i> at 47-48. One of Suncor’s groundwater wells, located in the firefighting training area, recorded PFAS levels up to 10,340 ppt in October 2018 and 10,250 ppt in April 2019. Ava Farouche, Earthjustice, Translated Groundwater PFC Sampling: Oct. 2018 (Feb. 16, 2022) (showing PFAS level for well RMW-36B) (attached as Exhibit 16); Ava Farouche, Earthjustice, Translated Groundwater PFC Sampling: Apr. May 2019 (Feb. 16, 2022) (showing PFAS level for well RMW-36B) (attached as Exhibit 17). Suncor pumps this groundwater for treatment and discharges the treated groundwater through its various outfalls. Fact Sheet at 4-5, 20, 22-23. Like its groundwater data, Suncor’s effluent data also shows that it discharges large amounts of PFAS into surface waters. According to the facility’s effluent monitoring data, it measured maximum levels of PFAS chemicals between May 2020 and December 2021 in the following amounts: 180 ppt of PFHxS, 21 ppt of PFOA, 22 ppt of PFNA, and 990 ppt of PFOS. <i>Id.</i></p>	
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		<p>at 57; Suncor Energy, LLC, Table 1, Results of Analysis for PFAS Compounds, Outfall 020A (CO0001147) (Jan. 7, 2022) [hereinafter “Suncor May 2020-Dec. 2021 Outfall 20 Data”] (attached as Exhibit 18). This data shows that Suncor has and continues to discharge PFAS into state surface waters well in excess of the translation levels established by the Water Quality Control Commission (WQCC) in Policy 20-1, the narrative PFAS policy. Water Quality Control Comm’n, Policy 20-1, Policy for Interpreting the Narrative Water Quality Standards for Per- and Polyfluoroalkyl Substances (PFAS) at 12 (July 14, 2020) [hereinafter “Policy 20-1”] (attached as Exhibit 19).¹¹</p> <p>In accordance with the requirements of the Clean Water Act and Water Quality Control Act, and given the high levels of PFAS found in Suncor’s effluent, the Division is required to impose effluent limits and other controls on Suncor’s PFAS discharges. <i>See, e.g.</i>, C.R.S. § 25-8-503(d)(4) (prohibiting the issuance of a permit that “allows a discharge that by itself or in combination with other pollution will result in pollution of the receiving waters in excess of the pollution permitted by an applicable water quality standard,” including narrative standards, “unless the permit contains effluent limitations and a schedule of compliance specifying treatment requirements”); 5 C.C.R. § 1002-61:61.8(1)(e) (same); <i>see also</i> 33 U.S.C. § 1311(b) (requiring the inclusion of technology-based limits in water discharge permits); C.R.S. § 25-8-503 (same).</p>	
<p>Permit</p> <p>Fact Sheet</p>	<p>Part I.E.1. at 39-40</p> <p>Part VI.A. at 26-27, Part VIII.C. at 95-96</p>	<p>The Division proposes effluent limits for just three subclasses of PFAS, including a total of nine PFAS chemicals. <i>See</i> Draft Permit at 39-40. However, approximately 9,000+ different PFAS chemicals exist, and Suncor’s effluent monitoring data shows that the facility discharges at least ten additional PFAS chemicals into state surface waters for which the Division proposes no effluent limits. <i>See</i> Suncor May 2020-Dec. 2021 Outfall 20 Data. Additionally, Suncor very likely discharges a large number of other PFAS chemicals, as they are used in PFAS-based Aqueous Fire Fighting Foams (AFFF) and likely to be present in Suncor’s contaminated</p>	<p>The Division should not allow Suncor to discharge any PFAS chemicals into state waters. The Division should, thus, impose in Suncor’s final permit a non-detectable effluent limit for PFAS as a class to adequately protect</p>

¹¹ Available at https://drive.google.com/file/d/119FjO4GZVaJtw7YFvFqs9pmlwDhDO_eG/view.

		<p>groundwater. See Krista Barzen-Hanson, <i>Discovery of 40 Classes of PFAS in Historical Aqueous Film-Forming Foams (AFFFs) and AFFF-Impacted Groundwater</i>, 51 Env't Sci. & Tech. 2047 (2017) [hereinafter "Barzen-Hanson, <i>PFAS Classes in AFFF</i>"] (attached as Exhibit 20). Given the serious threats posed by the entire class of PFAS chemicals, the Division should not allow Suncor to discharge any PFAS chemicals. The Division should, thus, impose a non-detectable effluent limit on Suncor's discharges for PFAS as an entire class.</p> <p>The Division's existing authority allows it to impose an effluent limit for PFAS as an entire class. First, in Policy 20-1, the WQCC explained that "the [D]ivision retains the authority to implement . . . translation levels for other PFAS constitutes pursuant to the narrative standard where scientifically supportable (for example where additional toxicological data or site-specific information become available)." Policy 20-1 at 12; <i>see also id.</i> at 16 (same). The WQCC did not intend to limit the Division to the translation levels articulated in Policy 20-1. Rather, the WQCC explained that the Division should exercise "flexibility" in applying the policy and, where warranted, the Division "may exercise its professional judgment to implement the narrative standard in a manner that may differ from the specifics of this policy." Policy 20-1 at 6.</p> <p>Second, the whole class of PFAS together has the reasonable potential to cause excursions of state water quality standards given the significant risks posed by these compounds. See Policy 20-1 at 15 ("Effluent limits should be further based on analyses of reasonable potential consistent with [the Division's Reasonable Potential Policy]"). Under Regulation 61.8(2), the Division must set effluent limits for pollutants that "will cause, have the reasonable potential to cause, or measurably contribute to an excursion above any water quality standard, including narrative standards for water quality." 5 C.C.R. § 1002-61:61.8(2)(b)(i)(A); <i>see also</i> 40 C.F.R. § 122.4(d)(1)(i) ("Limitations must control all pollutants . . . which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for</p>	<p>surrounding communities and surface waters.</p>
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		<p>water quality.”); Water Quality Control Div., Policy No. Clean Water 1, Determination of the Requirement to Include Water Quality Standards-Based Limits in CDPS Permits Based on Reasonable Potential (Nov. 18, 2020) [hereinafter “Reasonable Potential Policy”] (attached as Exhibit 21).¹² Relatedly, the Division cannot issue a permit that allows a discharge that “by itself or in combination with other pollution will result in pollution of the receiving waters in excess of the pollution permitted by an applicable water quality standard,” including narrative standards, “unless the permit contains effluent limitations and a schedule of compliance specifying treatment requirements.” 5 C.C.R. § 1002-61:61.8(1)(e); <i>see also</i> U.S. Env’t Prot. Agency, <i>Ch. 6: Water Quality-Based Effluent Limitations</i> at 6-23, <i>in</i> NPDES Permit Writers’ Manual (Sept. 2010) (“[A] reasonable potential analysis is used to determine whether a discharge, alone or in combination with other sources of pollutants to a waterbody . . . could lead to an excursion above an applicable water quality standard.”) [hereinafter “EPA NPDES Manual: WQBELs”] (attached as Exhibit 22).¹³</p> <p>In accordance with the reasonable potential standard, the Division should impose a non-detectable limit for PFAS as a class to ensure that Suncor’s PFAS discharges will not cause, or have the reasonable potential to cause, excursions, of the state’s narrative Free From Toxics standard. As provided in Regulation 31, the Free From Toxics standard requires that “state surface waters shall be free from substances attributable to human-caused point source or nonpoint source discharge in amounts, concentrations or combinations which . . . are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life.” 5 C.C.R. § 1002-31:31.11(1)(a)(iv). Further, as provided in Regulation 41, the Free From Toxics standard requires that “[g]roundwater shall be free from pollutants . . . which alone or in combination with other substances, are in concentrations shown to be: (a) Carcinogenic, mutagenic, teratogenic, and or toxic to human beings, and/or (b) A danger to the public health, safety, or welfare.” <i>Id.</i> § 1002-41:41.5(A)(1).</p>	
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¹² Available at <https://drive.google.com/file/d/18KrL8XhFkICrhxpybysupl3RkC4RLVVX/view>.

¹³ Available at https://www.epa.gov/sites/default/files/2015-09/documents/pwm_chapt_06.pdf.

		<p>Here, the entire class of PFAS chemicals collectively pose serious threats to human, animal, plant, and aquatic health. PFAS have been found to cause developmental effects to fetuses and infants, kidney and testicular cancer, liver malfunction, hypothyroidism, high cholesterol, ulcerative colitis, lower birth weight and size, obesity, decreased immune response to vaccines, reduced hormone levels, and delayed puberty. Arlene Blum, et al., <i>The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs)</i>, 123 Env't Health Perspectives A 107 (2015) [hereinafter "The Madrid Statement"] (attached as Exhibit 23). Although research has largely focused on long-chain PFAS, such as PFOA and PFOS, a growing body of evidence shows that short-chain PFAS are also highly mobile in the environment and pose similar threats to human and ecosystem health as their long-chain counterparts. Carol F. Kwiatkowski, et al., <i>Scientific Basis for Managing PFAS as a Chemical Class</i>, 7 Env't. Sci. & Tech. Letters 532, 534 (2020) [hereinafter "Kwiatkowski, PFAS as a Class"] (attached as Exhibit 24); <i>see also</i> Env't Prot. Agency, Technical Factsheet: Toxicity Assessment for PFBS (2021) [hereinafter "EPA PFBS Factsheet"] (attached as Exhibit 25).¹⁴ Indeed, ample data exists showing that PFAS chemicals beyond the three subclasses for which the Division proposes effluent limits pose serious dangers to human, animal, plant, and aquatic health. For instance, 26 additional PFAS chemicals have been well studied, with 389 studies on their effects on animals and at least one study each on their effect on fish. <i>See</i> PFAS Tox Database (last visited Feb. 9, 2022).¹⁵</p> <p>People and ecosystems are not exposed to PFAS chemicals, and their serious health effects, one at a time. Rather, they are exposed to complex mixtures of many PFAS chemicals simultaneously. Kwiatkowski, PFAS as a Class at 533-34. And this large class of toxic chemicals collectively present serious and lasting risks to public health and the environment. <i>See, e.g., id.</i> at 532-43; The Madrid Statement at A 107. PFAS chemicals take decades to leave the human body and, with constant exposure, the</p>	
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¹⁴ Available at <https://www.epa.gov/chemical-research/learn-about-human-health-toxicity-assessment-pfbs>.

¹⁵ Available at <https://pfastoxdatabase.org/>.

		<p>chemicals accumulate over time, causing PFAS to “reach concentrations where hazardous effects are observed in humans and ecosystems, particularly when the effects of combined exposure to multiple PFAS are considered.” Kwiatkowski, PFAS as a Class at 534-35. Given their persistence, PFAS chemicals will remain in the environment “for centuries or longer, even if environmental releases cease immediately.” <i>Id.</i> at 535. As a result, scientific experts have called for regulation of PFAS as a class due to their physicochemical, environmental, and toxicological properties. <i>Id.</i> at 534 (explaining that regulation of PFAS one chemical at a time or in small groups “has not been effective at controlling widespread exposure to this large group of chemicals with known and potential hazards”); <i>see also</i> Ian Cousins, et al., <i>Strategies For Grouping Per- and Polyfluoroalkyl Substances (PFAS) to Protect Human and Environmental Health</i>, 22 Env’t Sci. Process & Impacts 1444 (2020) (attached as Exhibit 26).</p> <p>Moreover, a class-based approach to controlling PFAS discharges is technically feasible. For instance, innovative non-target analysis and Total Oxidizable Precursor (TOP) Assay have detected 40 new <i>classes</i> of PFAS at sites contaminated with PFAS firefighting foams. Barzen-Hanson, <i>PFAS Classes in AFFF</i>; <i>see also</i> Rachael Casson & Sheau-Yun Chiang, <i>Integrating Total Oxidizable Precursor Assay Data to Evaluate Fate and Transport of PFASs</i>, 28 Remediation 71 (2018) (attached as Exhibit 27). Analytical methods like TOP Assay are both commercially available and have been validated by academic institutions in the United States. <i>See</i> Eurofins, <i>Analysis of Unknown Pool of PFAS: Total Oxidizable Precursors (TOP), PFOS Precursors (PreFOS) and Telomer Degradation</i> (attached as Exhibit 28).</p> <p>Additionally, the Division should not allow Suncor to discharge any additional PFAS because technologies that virtually eliminate all PFAS compounds from wastewater are available. Granular activated carbon, ion exchange, and reverse osmosis technologies are readily available and can be used as a “treatment train” that uses several treatment technologies in a sequence to efficiently eliminate PFAS down to non-detectable levels. Anna Reade, et al., Nat. Res. Def. Council, <i>Scientific and Policy Assessment for Addressing Per- and Polyfluorinated Substances (PFAS) in Drinking Water</i></p>	
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		<p>at 56-57 (2019) (attached as Exhibit 29); <i>see also</i> Scott Bartel, et al., Mich. PFAS Sci. Advisory Panel, Scientific Evidence and Recommendations for Managing PFAS Contamination in Michigan at 60-63 (Dec. 7, 2018) (attached as Exhibit 30).</p> <p>Given PFAS’s severe and cumulative impacts on human and ecosystem health, the Division should not allow Suncor to discharge any additional PFAS into state surface waters. The Division should, thus, impose a non-detectable limit for PFAS as a class in Suncor’s permit to adequately protect surrounding communities and surface waters.</p>	
<p>Permit</p> <p>Fact Sheet</p>	<p>Part I.E.1. at 39-40</p> <p>Part VI.A. at 26-27, Part VIII.C. at 95-96</p>	<p>The Division should impose a non-detectable effluent limit in Suncor’s final permit for PFAS as a class, as discussed above. If the Division does not impose a limit for the entire class of PFAS, then it must, at the very least, impose more stringent limits on Suncor’s discharges of the three subclasses of PFAS—PFOA/PFOS/PFNA+parents, PFBS, and PFHxS—for which it proposes limits.</p> <p>The Division proposes to include the Policy 20-1 translations levels for three subclasses of PFAS as numeric effluent limits in Suncor’s permit. Yet, the Division has authority to impose more stringent limits on Suncor’s PFAS discharges, and significant toxicological evidence supports the need for stricter standards to protect public health and welfare. Indeed, Suncor’s own monitoring data, which shows high levels of PFAS in its effluent, supports the need for more stringent numeric limits in the final permit.</p> <p>The Division has ample authority to impose more stringent numeric limits for PFAS. In Policy 20-1, the WQCC explained that the Division is authorized to “implement more stringent translation values for PFOA, PFOS, PFNA, PFHxS, and PFBS . . . where scientifically supportable.” Policy 20-1 at 12 (explaining that the Division has authority to impose more stringent limits “for example, where additional toxicological data or site-specific information become available”); <i>see also id.</i> at 16 (same). Moreover, just as for the whole class of PFAS together, the Division must</p>	<p>The Division must set more stringent numeric effluent limits for PFAS in Suncor’s final permit. In light of updated data on these PFAS, the Division must impose a non-detectable effluent limit for PFOA/PFOS/ PFNA +parents, in accordance with the method detection limits in EPA’s Draft Method 1633. The Division must also impose a 70 ppt daily and 30-day average limit for PFHxS and a 1,050 ppt daily and 30-day average limit for PFBS.</p>

		<p>impose more stringent numeric limits for these three subclasses of PFAS because Suncor’s discharges of these PFAS have the reasonable potential to cause excursions of the narrative Free From Toxics standard for surface water and groundwater. See Policy 20-1 at 15 (“Effluent limits should be further based on analyses of reasonable potential consistent with [the Division’s Reasonable Potential Policy]).”); 5 C.C.R. §§ 1002-31:31.11(1)(a)(iv), 1002-41:41.5(A)(1), 1002-61:61.8(2)(b)(i)(A); 40 C.F.R. § 122.4(d)(1)(i).</p> <p>Despite the requirements of the reasonable potential standard and Policy 20-1’s directive that the Division retains authority to set more stringent limits for the three subclasses of PFAS with translation levels, the Division fails to demonstrate that its proposed effluent limits are sufficiently protective to prevent excursions of the narrative Free From Toxics standard. Nowhere in the Fact Sheet did the Division explain how it conducted its reasonable potential analysis for the three subclasses of PFAS for which it proposes limits. The Division states only that it made a qualitative reasonable potential determination for PFAS at Suncor’s process water outfalls based on PFAS contributions from groundwater and stormwater and PFAS found in the facility’s effluent. Fact Sheet at 95-96. The Division, however, did not explain what factors it considered in its analysis, how it applied those factors, or how consideration of any factors impacted its ultimate conclusions. See Reasonable Potential Policy at 10-11 (setting forth factors the Division considers in conducting a qualitative reasonable potential analysis). Nor did the Division discuss whether the proposed effluent limits are, indeed, sufficiently protective. See <i>generally</i> Fact Sheet at 26-27, 95-96. Rather, the Division seems to have blindly adopted the translation levels from Policy 20-1 as numeric effluent limits in the draft permit based on the unsubstantiated <i>assumption</i> that the translation levels will prevent excursions of state water quality standards. See <i>id.</i> at 27 (stating that the Division “has elected to rely on . . . Policy 20-1 for the permit’s PFAS limits”).</p> <p>The Division’s assumption that its proposed effluent limits for the three subclasses of PFAS are sufficiently protective lacks support and is</p>	
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		<p>misplaced, as toxicological evidence shows that the three subclasses of PFAS for which the Division proposes effluent limits are harmful to humans, animals, plants, and aquatic life in far lower concentrations.</p> <p>The translation levels for PFOA, PFOS, and PFNA on which the effluent limits are based are in turn based on an outdated 2016 EPA health assessment. See Env’t Prot. Agency, Drinking Water Health Advisories for PFOA and PFOS (2016) [hereinafter “EPA 2016 PFAS Health Advisory”].¹⁶ At the time the WQCC issued Policy 20-1, the Agency for Toxic Substances and Disease Registry (ATSDR) had published only draft toxicity estimates for various PFAS, including PFOS, PFOA, PFNA, and PFHxS. ATSDR has since finalized its toxicity estimates, and the final estimates show that PFOS, PFOA, and PFNA are more potent than EPA’s 2016 assessment concluded. U.S. Dep’t of Health & Human Servs., Agency for Toxic Substances & Disease Registry, Toxicological Profile for Perfluoroalkyls at 5-6 (May 2021) [hereinafter “ATSDR Toxicological Profile”] (attached as Exhibit 31). Based on a review of epidemiological studies for humans and animals, ATSDR derived reference doses for PFOA, PFOS, and PFNA of 3, 2, and 3 nanograms per kilogram per day (ng/kg/day). <i>Id.</i> at 17, 20-21. These are much lower than the EPA 2016 potency values of 20 ng/kg/day for PFOS and PFOA. See EPA 2016 PFAS Health Advisory. If the Division were to adopt the same assumptions that EPA used to translate a toxic potency to drinking water level, then the ATSDR reference doses would equate to a concentration of 29 ppt for the sum of PFOS+PFOA+PFNA.</p> <p>Additionally, in December 2021, EPA itself published new draft evaluations of PFOS and PFOA potency to support its ongoing National Primary Drinking Water Rulemaking for PFAS. U.S. Env’t Prot. Agency, External Peer Review Draft: Proposed Approaches to the Derivation of a Draft Maximum Contaminant Level Goal for Perfluorooctanoic Acid (PFOA) (CASRN 335-67-1) in Drinking Water (Nov. 2021) [hereinafter “EPA Draft MCLs for PFOA”] (attached as Exhibit 32); U.S. Env’t Prot. Agency, External Peer Review Draft: Proposed Approaches to the Derivation of a Draft Maximum</p>	
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¹⁶ Available at <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>.

		<p>Contaminant Level Goal for Perfluorooctane Sulfonic Acid (PFOS) (CASRN 1763-23-1) in Drinking Water (Nov. 2021) [hereinafter “EPA Draft MCLs for PFOS”] (attached as Exhibit 33); <i>see also</i> U.S. Env’t Prot. Agency, Analyses to Support EPA’s National Primary Drinking Water Rulemaking for PFAS (last viewed Feb. 9, 2022).¹⁷ EPA’s new evaluations are still being peer reviewed, but the agency’s reference doses of 0.0015 and 0.00175 ng/kg/day for PFOA, and 0.0079 and 0.011 ng/kg/day for PFOS are hundreds to thousands of times lower than those put forth in its 2016 assessment. EPA Draft MCLs for PFOA at 340-41; EPA Draft MCLs for PFOS at 310-11. The revised toxicity values focus on human observation studies, rather than experimental animal studies. The most sensitive impacts of PFOS and PFOA are on gestational and early life exposure to children’s developing immune systems. EPA proposes to base its new potency estimates on studies of children from the Faroe Islands that find a clinically significant decrease in diphtheria antibody concentrations in children with higher blood levels of PFOS, and decrease in anti-tetanus antibodies in children with higher exposures to PFOA. <i>See</i> Phillippe Grandjean, <i>Serum Vaccine Antibody Concentrations in Children Exposed to Perflourinated Compounds</i>, J. Am. Med. Ass’n 391 (2012) [hereinafter “Grandjean, Antibodies in Children Exposed to PFAS”] (attached as Exhibit 34). EPA’s new potency estimates should prompt a dramatic downward revision of the advisory levels for drinking water of 70 ppt. Based on these updated assessments, any measurable concentration of PFOS, PFOA, and PFNA in drinking water would pose an unacceptable risk to public health.</p> <p>Similarly, updated toxicity assessments support imposing a much lower effluent limit for PFHxS. In setting the translation level for PFHxS in Policy 20-1, the WQCC declined to use ATSDR’s then-draft toxicity value of 20 ng/kg/day for this PFAS compound. However, ATSDR has since finalized the toxicity value for PFHxS. ATSDR Toxicological Profile at 21. Based on the now final value, the Division should impose a much more stringent effluent limit on PFHxS of 70 ppt.</p>	
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¹⁷ Available at https://sab.epa.gov/ords/sab/f?p=100:18:16490947993:::RP,18:P18_ID:2601.

		<p>New studies on the effects of PFBS also support the need for a much lower effluent limit on that PFAS compound. PFBS is a replacement compound for PFOS and commonly used in consumer products. See EPA PFBS Factsheet at 1. It is more mobile in groundwater, meaning that it travels further and faster than longer-chain compounds. <i>Id.</i> And, as noted above, shorter chain PFAS, like PFBS, have been found to have similar health impacts as long-chain PFAS. Kwiatkowski, PFAS as a Class at 534. Based on human and animal epidemiological studies and identified health effects, EPA revised its potency estimate for PFBS from 10,000 ng/kg/day to 300 ng/kg/day. EPA PFBS Factsheet at 2-4. Following EPA’s assumptions to translate from a potency estimate to water advisory level, the new potency value equates to a water level of 1,050 ppt.</p> <p>Indeed, Suncor’s own monitoring data supports the need for more stringent PFAS effluent limits. Suncor’s most recent batch of effluent monitoring data shows that the concentration of PFOS alone discharged from Outfall 20 was well over the Division’s proposed effluent limit for this chemical of 70 ppt, ranging from 72 to 990 ppt for 10 of the 20 months recorded. See Suncor May 2020-Dec. 2021 Outfall 20 Data. This same monitoring data also shows that, for 13 of the 20 months recorded, the combined levels of PFOA, PFOS, and PFNA from Outfall ranged between 78 ppt and 1,029 ppt. <i>Id.</i> The May 2020 to December 2021 data also shows high levels of PFHxS in Suncor’s effluent, with a minimum reading of 78 ppt in November 2020 and a maximum reading of 180 ppt in May 2021. <i>Id.</i> Similarly, Suncor’s earlier PFAS effluent data shows that it has been discharging large amounts of these PFAS since it began sampling in 2019, with recorded total combined amounts of PFOA and PFOS of 82 ppt in June 2019, 94 ppt in November 2019, and 199 ppt in January 2020. See Meg Parrish, Colo. Dep’t Pub. Health & Env’t, Water Quality Control Div. Permit Section, RE: Second Request for Information, Suncor Energy, CDPS Permit CO0001147 (May 20, 2020) [hereinafter “Division Second RFI”] (attached as Exhibit 35).</p> <p>New toxicological data and Suncor’s own monitoring data show that the Division’s proposed effluent limits for PFAS are not sufficiently protective and would not prevent excursions of the narrative Free From Toxics</p>	
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		<p>standard. As a result, the Division must impose more stringent limits on the three subclasses of PFAS for which it proposed limits in the draft permit. In light of updated data on these PFAS, the Division must impose a non-detectable effluent limit for PFOA/PFOS/PFNA+parents, in accordance with the method detection limits in EPA’s Draft Method 1633. See U.S. Env’t. Prot. Agency, Draft Method 1633: Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS at 50, tbl.6 (Aug. 2021) [hereinafter “EPA Draft Method 1633”] (attached as Exhibit 36). The Division must also impose a 70 ppt daily and 30-day average limit for PFHxS and a 1,050 ppt daily and 30-day average limit for PFBS.</p>	
<p>Permit Fact Sheet</p>	<p>Part I.E.1. at 41 Part VI.A. at 26-27, Part VIII.C. at 95-96</p>	<p>The Division does not propose any numeric effluent limits for PFAS discharges from Suncor’s stormwater-only outfalls—Outfalls 021, 022, 024, 025, 027, and 028. Draft Permit at 41; Fact Sheet at 95-96. Instead, the Division proposes to only require Suncor to monitor its PFAS discharges from these outfalls and rely on practice-based effluent limits to control Suncor’s stormwater discharges. Fact Sheet at 26-27, 95-96, 104-05. Yet Suncor’s continued use and storage of PFAS-containing fire-fighting foam, along with its lengthy history of spills, leaks, and permit violations requires the Division to set stringent numeric PFAS limits for the facility’s stormwater outfalls, in addition to its proposed practice-based limits.</p> <p>The Division must impose numeric effluent limits for pollutants expected to be in a discharger’s effluent and that have the reasonable potential to cause excursions of a narrative or numeric water quality standard. 5 C.C.R. § 1002-61:61.8(2)(b)(i)(A); 40 C.F.R. § 122.44(d)(1)(i); Policy 20-1 at 15 (“Effluent limits should be further based on analyses of reasonable potential consistent with [the Division’s Reasonable Potential Policy]).”). The Division can determine if a pollutant is expected to occur in a discharger’s effluent based on “the raw materials stored or used” at the facility, or if, based on “available data and information on similar facilities, the permit writer has a strong basis for expecting that the pollutant could be present in the discharge.” EPA NPDES Manual: WQBELs at 6-15;</p>	<p>In addition to the proposed practice-based limits for stormwater discharges, the Division must conduct a complete reasonable potential analysis for PFAS discharges at Suncor’s stormwater outfalls and impose a class-based numeric effluent limit for PFAS, as discussed above. At the very least, the Division must impose stringent numeric limits for the three subclasses of PFAS for which the Division proposes limits, also as discussed above.</p>

		<p>Reasonable Potential Policy at 5 (explaining that pollutants expected to be in a discharger’s effluent include those with known sources, those that are known to commonly occur in similar effluents, and those that, in the permit writer’s best professional judgment, may be found in the effluent). The Division’s obligation to conduct a reasonable potential analysis for expected pollutants and set numeric effluent limits for those pollutants applies to stormwater outfalls, as well as process water outfalls. 5 C.C.R. § 1002-61:61.1(1) (“These regulations apply to all operations discharging to waters of the State from a point source.”); <i>id.</i> § 61.3(2)(a), (e); <i>see also</i> Reasonable Potential Policy at 11 (discussing application of qualitative reasonable potential analysis for stormwater outfalls).</p> <p>Here, PFAS are very likely to occur in the effluent discharged from Suncor’s stormwater outfalls. Suncor still uses a short-chain PFAS-containing firefighting foam and stores onsite a total of 28,055 barrels of PFAS-containing foam, some of which is made up of long-chain PFAS. Fact Sheet at 24. PFAS is also likely to appear in Suncor’s stormwater effluent given Suncor’s long history of spills, leaks, and permit violations. <i>Id.</i> at 27-36. Indeed, the Division reauthorized three of Suncor’s stormwater outfalls as process water outfalls in the draft permit because Suncor had allowed groundwater, which is contaminated with extremely high levels of PFAS, and non-contact cooling water to co-mingle with its stormwater at those outfalls. <i>Id.</i> at 6; EPA Stormwater Compliance Report at 12-13.</p> <p>Like its discharges of PFAS from its process water outfalls discussed above, Suncor’s discharges of PFAS from its stormwater outfalls would have the reasonable potential to cause an excursion of the narrative Free From Toxics standard for surface waters and groundwater. 5 C.C.R. §§ 1002-31:31.11(1)(a)(iv), 1002-41:41.5(A)(1). As a result, the Division must conduct a reasonable potential analysis for PFAS at Suncor’s stormwater outfalls and impose numeric PFAS effluent limits. <i>Id.</i> § 1002-61:61.8(2)(b)(i)(A); 40 C.F.R. § 122.44(d)(1)(i). Although the WQCC noted in Policy 20-1 that it does not intend for the Division to use the policy to set effluent limits for stormwater outfalls, Policy 20-1 at 16, nothing in that policy prohibits or prevents the Division from doing so when such limits are</p>	
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		<p>necessary to satisfy the requirements of the Clean Water Act and Water Quality Control Act, <i>id.</i> at 1 (explaining that Policy 20-1 relies on the Division’s existing authority); C.R.S. § 25-8-503(1)(a) (providing that the Division will issue discharge permits only upon determining that the permit satisfies the requirements of the Water Quality Control Act and Clean Water Act, and their implementing regulations); 5 C.C.R. § 1002-61:61.8(3)(f) (“Every permit issued shall contain such terms and conditions as the Division determines to be necessary to ensure compliance with applicable control regulations, water quality standards, and the state and federal Act.”).</p> <p>Given that PFAS is expected to be in Suncor’s stormwater discharges, the Division’s exclusive reliance on practice-based limits to prevent PFAS discharges from Suncor’s stormwater outfalls is misplaced. The Division proposes to include a handful of practice-based limits in Suncor’s permit, such as requiring Suncor to: (1) prevent PFAS-containing foams from entering its stormwater management system; (2) minimize pollutant discharges using control measures “to the extent achievable”; (3) maintain a clean and orderly facility and keep contaminants out of its stormwater discharges; (4) develop spill prevention and response procedures to prevent spills and leaks and minimize the damage when they do occur; and (5) manage its runoff to prevent stormwater contact with pollutant sources. Fact Sheet at 26, 104-05; Draft Permit at 42, 49. All of these practice-based limits except for that banning PFAS foam from entering the stormwater system were required as part of Suncor’s current permits. Water Quality Control Div., Colo. Dep’t Pub. Health & Env’t, Colorado Discharge Permit System for Suncor Energy (USA) Inc., Permit No. COS000009, at 6-7 (Sept. 27, 2012, effective Nov. 1, 2012) (attached as Exhibit 37); Water Quality Control Div., Colo. Dep’t Pub. Health & Env’t, Colorado Discharge Permit System for Suncor Energy (USA) Inc., Permit No. CO0001147, at 10, 27-28 (Sept. 27, 2012, effective Nov. 1, 2012) (attached as Exhibit 38). Yet these provisions failed to prevent the numerous spills, leaks, and permit violations documented at Suncor over the ten-year term of those permits, underscoring the ineffectiveness of these provisions for controlling Suncor’s stormwater discharges. Fact Sheet at 27-36; <i>see also</i></p>	
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		<p>EPA Stormwater Compliance Report at 14 (discussing failure to maintain stormwater controls); EPA Process Water Compliance Report at 9-10 (documenting failure to operate and maintain facilities, treatment systems, and controls).</p> <p>The Division also proposes to require Suncor to conduct a PFAS use, storage, and release study within 6 months of permit issuance. Draft Permit at 49-50; Fact Sheet at 26. This study only requires Suncor to document where, when, and how PFAS foams are used and allows Suncor to determine what procedures and measures are necessary to minimize releases of PFAS into its stormwater. Draft Permit at 49-50. However, as documented in the Fact Sheet and EPA Reports, Suncor has historically failed to maintain and comply with proper maintenance and control procedures. Fact Sheet at 27-36; <i>see also</i> EPA Stormwater Compliance Report at 14; EPA Process Water Compliance Report at 9-10. Suncor's history of spills, leaks, and permit violations demonstrates that practice-based limits alone are not sufficient to ensure that Suncor complies with all applicable water quality standards, such as the narrative Free From Toxics standard.</p> <p>The Division must conduct a complete reasonable potential analysis for PFAS discharges at Suncor's stormwater outfalls and impose a class-based numeric effluent limit for PFAS at those outfalls, as discussed above. <i>Supra</i> pp. 12-16. At the very least, the Division must impose stringent numeric limits for the three subclasses of PFAS for which the Division proposes limits, also as discussed above. <i>Supra</i> pp. 16-21.</p>	
Fact Sheet	Part VI.A. at 27	<p>The Division must include technology-based effluent limits (TBELs) for PFAS in Suncor's permit. In the Fact Sheet, the Division states that it did not include TBELs in Suncor's draft permit because EPA has not set any Effluent Limitation Guidelines (ELGs) for PFAS and setting TBELs for PFAS would require too much time. Fact Sheet at 27. However, the Division's failure to include TBELs for PFAS violates the minimum requirements of the Clean Water Act and Water Quality Control Act.</p>	<p>The Division must develop and include in Suncor's permit TBELs for PFAS to satisfy the minimum requirements of both the Clean Water Act and Water Quality Control Act.</p>

		<p>TBELs are a centerpiece of the discharge permitting programs under the Clean Water Act and Water Quality Control Act. See U.S. Env’t Prot. Agency, <i>Ch. 5: Technology-Based Effluent Limitations</i> at 5-1, in NPDES Permit Writers’ Manual (Sept. 2010) (noting that TBELs are “[o]ne of the major strategies of the Clean Water Act . . . in making ‘reasonable further progress toward the national goal of eliminating the discharge of all pollutants’”) [hereinafter “EPA NPDES Manual: TBELs”] (attached as Exhibit 39).¹⁸ Both statutes require permits to include TBELs for all discharged pollutants as the minimum level of control that must be imposed. 33 U.S.C. § 1311(b); C.R.S. § 25-8-503; 40 C.F.R. § 125.3(a) (“Technology-based treatment requirements . . . represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act.”); 5 C.C.R. § 1002-61:61.8(2)(a) (requiring that each discharge permit issued “will, as a minimum” include TBELs). EPA typically promulgates ELGs for industrial facilities that set the TBELs that the Division must include in a discharge permit. EPA NPDES Manual: TBELs at 5-13 to 5-14. However, if EPA has not developed ELGs that apply to the discharges from a particular facility, then the Division must develop TBELs on a case-by-case basis using its “best professional judgement.” <i>Id.</i> at 5-44 to 5-46; C.R.S. § 25-8-503(1)(b); 40 C.F.R. §§ 122.44(a)(1), 125.3(c)(2)-(3), 125.3(d); 5 C.C.R. § 1002-61:61.8(2)(a)(v). When developing TBELs, the Division considers, “the availability of appropriate technology, its economic reasonableness, the age of equipment and facilities involved, the process employed, and any increase in water or energy consumption.” C.R.S. § 25-8-503(1)(b); 40 C.F.R. § 125.3(c)(2), (d); 5 C.C.R. § 1002-61: 61.8(2)(a)(v)(A).</p> <p>Here, the Division must include TBELs for PFAS in Suncor’s discharge permit as a minimum pollution control requirement under both the Clean Water Act and Water Quality Control Act. Contrary to the Division’s claim, the fact that EPA has not yet issued an ELG for PFAS from industrial sources does not absolve the Division of its duty to include TBELs for PFAS in Suncor’s permit. See EPA NPDES Manual: TBELs at 5-45 to 5-46 (explaining</p>	
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¹⁸ Available at https://www.epa.gov/sites/default/files/2015-09/documents/pwm_chapt_05.pdf.

		<p>that permits must include TBELs on a case-by-case basis using best professional judgment when ELGs “are available for the industry category, but no [ELGs] are available for the pollutant of concern”). Nor does the fact that it may take some time to develop TBELs for PFAS, as TBELs are a baseline requirement for compliance with both statutes.</p> <p>There is ample information available about PFAS control technologies that the Division can use to develop TBELs. For example, in September 2020, North Carolina issued a wastewater permit requiring the Chemours Company to comply with TBELs for three PFAS. N.C. Dep’t Env’t Quality, Permit NC0089915, Chemours Company FC, LLC at 3-4 (Sept. 20, 2020) (attached as Exhibit 40). Chemours uses a three-series granular activated carbon system, which was demonstrated to consistently reduce HFPO-DA (“Gen X”), PFMOAA, and PMPA to non-detectable levels. Parsons, Engineering Report: Old Outfall 002 GAC Pilot Study Results, Chemours Fayetteville Plant, Fayetteville, North Carolina at App’x C (Sept. 2019) (attached as Exhibit 41). EPA has also completed a detailed study of technologies available to treat PFAS in wastewater. In its most recent Multi-Industry PFAS Study, EPA summarized six types of treatment options for PFAS, four of which—granular activated carbon, adsorption, membrane filtration, and advanced oxidation and reduction processes—were found to reduce different PFAS compounds (including PFOA and PFOS) by up to 99 percent. U.S. Env’t Prot. Agency, Multi-Industry Per- and Polyfluoroalkyl Substances (PFAS) Study - 2021 Preliminary Report at 10-2 to 10-3, tbl.13 (Sept. 2021) (attached as Exhibit 42); <i>see also</i> ERG, Evaluation of Industrial Wastewater PFAS Treatment Technologies Report: Revision 1 (Feb. 2021) (attached as Exhibit 43).</p> <p>Additionally, numerous environmental organizations have provided comments on EPA’s Advanced Noticed of Proposed Rulemaking for the forthcoming ELGs for PFAS from the Organic Chemicals, Plastics and Synthetic Fibers point source category that discuss various control technologies that are available and the levels of control they can achieve. <i>See, e.g.,</i> S. Env’t Law Ctr., Comments on Advanced Notice of Proposed Rulemaking: Clean Water Act Effluent Limitations Guidelines and Standards</p>	
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		<p>for the Organic Chemicals, Plastics and Synthetic Fibers Point Source Category, EPA-HQ-OW-2020-0582 at 13-20 (May 14, 2021) (attached as Exhibit 44); Env't Working Grp., Comments on Advanced Notice of Proposed Rulemaking: Clean Water Act Effluent Limitations Guidelines and Standards for the Organic Chemicals, Plastics and Synthetic Fibers Point Source Category, EPA-HQ-OW-2020-0582 at 11-12 (May 17, 2021) (attached as Exhibit 45).</p> <p>The Division can use EPA's evaluation of existing industrial wastewater PFAS treatment technologies, comments from environmental organizations, and other available information on PFAS control technologies to develop the required TBELs for Suncor's permit. See EPA NPDES Manual: TBELs at 5-48, Ex. 5-22 (listing sources that permitting agencies can use to develop TBELs on a case-by-case basis using best professional judgment).</p>	
Permit Fact Sheet	Part E.1. at 39-41 Part VI.A., Part X.A.	<p>The Division must increase the monitoring frequency for all PFAS compounds from weekly to daily or, at a minimum, twice weekly. The Division's proposal of weekly monitoring is insufficient to verify Suncor's compliance with the draft permit's daily maximum effluent limits for PFAS. Weekly testing cannot assure compliance with these daily limits because Suncor's PFAS discharges are highly variable, due in part to the types of activities that result in PFAS discharges. In addition, other factors support more frequent testing, including Suncor's dismal compliance history, the toxic nature of PFAS pollutants, the location and size of the discharges, and Suncor's lack of economic hardship.</p> <p>The Division must include monitoring frequency requirements that are "sufficient to yield data which are representative of the monitored activity." 5 C.C.R. § 1002-61:61.8(4)(d); <i>see also</i> 40 C.F.R. § 122.48(b). For pollutants such as PFAS that are not specifically covered by the Division's existing monitoring frequency policy, the Division considers monitoring frequency on a case-by-case basis. Colo. Water Quality Control Div., Policy No. WQP-20, Baseline Monitoring Frequency, Sample Type, and Reduced Monitoring Frequency Policy for Industrial and Domestic</p>	<p>The Division must increase the PFAS monitoring frequency from weekly to daily or, at a minimum, twice weekly at process water outfalls 020, 004, 023, and 026 to verify compliance with PFAS effluent limits.</p> <p>If the Division imposes additional limits in the permit for PFAS as a class or for outfalls not currently subject to PFAS limits, as discussed above, those limits must also be subject to daily (or at least twice weekly) monitoring to ensure compliance.</p>

		<p>Wastewater Treatment Facilities at 2 (May 1, 2007) [hereinafter “Monitoring Policy”] (attached as Exhibit 46).¹⁹ For such case-by-case determinations, the Division considers three factors: the discharge’s variability, the type of activity leading to the discharge, and the discharge’s size. <i>Id.</i> In addition, EPA guidance includes other factors that the Division can consider in setting monitoring requirements, including compliance history, the location of the discharge, the nature of the pollutant, and economic hardship to the facility. U.S. Env’t Prot. Agency, <i>Ch. 8: Monitoring and Reporting Conditions</i> at 8-1, in NPDES Permit Writers’ Manual (Sept. 2010) (attached as Exhibit 47).²⁰ These factors all support more frequent monitoring of PFAS discharges at Suncor, and the Division must apply them here.</p> <p>First, the variability of Suncor’s PFAS discharges weighs heavily in favor of daily, or at least twice weekly, monitoring. For example, twenty measurements (collected monthly from May 2020 to December 2021) of PFOS at Outfall 020 resulted in a minimum measurement of 44 ppt and a maximum measurement of 990 ppt—<i>more than twenty times</i> higher. <i>See</i> Suncor May 2020-Dec. 2021 Outfall 20 Data. The standard deviation of that PFOS data set is 217 ppt, which is nearly three and a half times the Division’s proposed effluent limit of 70 ppt for PFOS, PFNA, and PFOA <i>combined</i>. <i>See id.</i> This variability is likely related to the type of activity leading to Suncor’s PFAS discharges—its discharges of contaminated groundwater into Sand Creek. Fact Sheet at 25. The levels of PFAS found in Suncor’s plume of contaminated groundwater are likely the result of Suncor’s historic and continued use of PFAS-containing firefighting foam. As the Division stated in the Fact Sheet, “Suncor is contributing to the PFAS contamination in groundwater beneath their refinery.” <i>Id.</i> In light of the extreme fluctuations in Suncor’s PFAS discharges, caused by Suncor’s own activity (groundwater discharges and firefighting), weekly monitoring is inappropriate and insufficient to assure compliance with daily maximum limits.</p>	
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¹⁹ Available at <https://oitco.hylandcloud.com/CDPHERMPop/docpop/docpop.aspx?clienttype=html&docid=9025480>.

²⁰ Available at https://www3.epa.gov/npdes/pubs/pwm_chapt_08.pdf.

		<p>Second, Suncor’s miserable compliance history highlights the need for more frequent monitoring. As explained above, Suncor reported 28 spills between 2011 and 2021. <i>Supra</i> pp. 7-8. Suncor’s problems with permit compliance are so bad that it took the Division seven pages to provide a “non-comprehensive” overview of Suncor’s compliance history in the draft Fact Sheet. Fact Sheet at 27-33. Additionally, EPA’s two inspection reports for Suncor spanned 113 pages with 10 observations of potential process water violations and 198 pages with 16 observations of potential stormwater violations, respectively. See EPA Process Water Compliance Report; EPA Stormwater Compliance Report.</p> <p>During its facility inspection, EPA observed several potential permit violations that likely directly impact Suncor’s PFAS discharges. For example, EPA noted numerous problems with Suncor’s groundwater treatment system (GWTS). As described above, Suncor’s groundwater is contaminated with PFAS, so the GWTS is critical for controlling PFAS discharges. Yet, EPA observed (1) an effluent limitation exceedance “due to operator error during maintenance activities on the GWTS surge basin,” EPA Process Water Compliance Report at 7 (Observation 1); (2) an oil sheen caused by a loss of a power at the GWTS, which is not equipped for a backup power supply, <i>id.</i> at 8 (Observation 2); and (3) accumulated solids and growth within the GWTS surge basin, caused by Suncor’s lack of a routine cleaning schedule for the basin, <i>id.</i> at 9 (Observation 6). Given Suncor’s demonstrated history of permit violations, and the specific impacts that Suncor’s violations may have on PFAS discharges, more frequent monitoring of Suncor’s PFAS discharges is needed to ensure that Suncor does not exceed its effluent limits for these dangerous compounds.</p> <p>Third, PFAS compounds are highly toxic pollutants with serious health impacts, deserving of more frequent monitoring. These bioaccumulative “forever chemicals” are toxic even at extremely low concentrations. Nat. Res. Def. Council, Fact Sheet—Toxic Drinking Water: The PFAS</p>	
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		<p>Contamination Crisis at 1 (Nov. 2019) (attached as Exhibit 48)²¹; <i>see also supra</i> pp. 14-15, 18-20. PFAS exposure can result in cancer; fertility and pregnancy problems; hormone disruption; increased cholesterol; immune system problems; and harm to liver, thyroid, and pancreatic function. ATSDR Toxicological Profile at 5-6; The Madrid Statement at A 107. Of great concern, fetuses and infants are particularly sensitive to PFAS exposure. <i>See</i> The Madrid Statement; <i>see also</i> Grandjean, Antibodies in Children Exposed to PFAS. PFAS's toxicity therefore weighs in favor of more frequent monitoring.</p> <p>Fourth, more frequent monitoring is necessary because Suncor's discharges occur in the midst of disproportionately impacted communities that have for decades borne the brunt of industrial pollution. Suncor's primary process water outfall, Outfall 020, discharges into Sand Creek, which flows between these communities with Globeville and Elyria-Swansea one side and Commerce City on the other. This area includes some of the most polluted zip codes in the country. Suncor's discharges of PFAS, benzene, and other pollutants only add to the already-onerous pollution burden in these disproportionately impacted communities. <i>See supra</i> pp. 5-7. In light of the sensitive location of Suncor's PFAS discharges, more frequent monitoring is needed.</p> <p>Fifth, the size of Suncor's PFAS discharges heightens the need for more frequent monitoring. Suncor has a history of high concentrations of PFAS discharges. For example, a sample at Outfall 020 in March 2021 measured 1,029 ppt of PFOA, PFNA, and PFOS combined. <i>See</i> Suncor May 2020-Dec. 2021 Outfall 20 Data. The month prior measured 161 ppt, and the month before that measured 220 ppt. <i>Id.</i> The problem has persisted over several years, with Suncor registering a combined measurement of 82 ppt for PFOA and PFOS in the very first month that it began taking measurements at Outfall 020 (June 2019). <i>See</i> Division Second RFI. These voluminous discharges strongly support more frequent PFAS monitoring.</p>	
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²¹ Available at <https://www.nrdc.org/sites/default/files/toxic-drinking-water-pfas-contamination-fs.pdf>.

		<p>Finally, more frequent PFAS monitoring will not cause Suncor any economic hardship. Petroleum refineries are “immensely profitable.” Geoff Dembicki, <i>This ‘Woke’ Oil Company Has Been Illegally Polluting a Poor Latino Community</i>, Vice News (May 17, 2021) (attached as Exhibit 49).²² In just the first quarter of 2021, Suncor “generated \$2.2 billion of funds from operations.” Transcript of Suncor Energy Q1 2021 Earnings Call, The Motley Fool (May 4, 2021) (attached as Exhibit 50).²³ Increased PFAS monitoring will not put a dent in such vast revenue flows. Suncor’s Commerce City refinery is itself a 98,000 barrel-per-day facility, and it can—and must—afford to improve its PFAS monitoring in order to protect its neighbors.</p> <p>Weekly monitoring simply is not “sufficient to yield data which are representative of [PFAS discharges].” 5 C.C.R. § 1002-61:61.8(4)(d). Because the above factors each support more frequent PFAS monitoring, the Division must require daily or at least twice weekly PFAS monitoring.</p>	
Permit	Part I.N.3.f. at 65-66	<p>The Division should require Suncor to use EPA Draft Method 1633 until there is an analytical approved method in 40 C.F.R. Part 136 for PFAS. In September 2021, EPA published a new draft lab method for measuring PFAS in wastewater, Draft Method 1633. Draft Method 1633 includes all necessary controls for accurate and precise measurements of 40 PFAS compounds in non-potable groundwater, surface water, and wastewater, as well as in soil, biosolids, and tissues. See EPA Draft Method 1633. In January 2022 the Department of Defense (DoD) published its final single-laboratory validation study report for Draft Method 1633. Dep’t of Def., Final Report: Single-Laboratory Validation Study of PFAS by Isotope Dilution LC-MS/MS (Jan. 2022) (attached as Exhibit 51). DoD is working on a multi-laboratory validation study of the Draft Method, and is expected to complete that study in 2022. EPA will use the results of this study to</p>	<p>In the final permit, the Division should require Suncor to use EPA Draft Method 1633 to monitor for all 40 PFAS compounds listed in Table 6 on page 50 of the draft method document.</p> <p>Suggested permit language: Until there is an analytical method approved in 40 C.F.R. 136 for PFAS, monitoring shall be conducted using Draft</p>

²² Available at <https://www.vice.com/en/article/n7bndx/suncor-oil-company-illegally-polluting-denver-poor-latino-community>.

²³ Available at https://www.fool.com/earnings/call-transcripts/2021/05/05/suncor-energy-su-q1-2021-earnings-call-transcript/?awc=12195_1643042282_c93cc5238ce618b1546e29b55900e487&campaign=78888&pc_source=TheMotleyFool_Awin&utm_source=aw&utm_campaign=78888.

		<p>finalize Draft Method 1633 and add formal performance criteria, which is expected by the end of 2022.</p> <p>Draft Method 1633 is the only validated analytical lab method developed specifically to measure PFAS concentrations in non-potable waters, such as wastewater and surface water. This method can accurately detect and measure 15 more PFAS compounds than the analytical method the Division proposes to use in Suncor’s draft permit. See Draft Permit Table at 65-66. Draft Method 1633 can also detect PFAS concentrations at much lower levels than the PFAS Quantification Limits listed in Table-2 on page 66 of this draft permit. See EPA Draft Method 1633 at 50, tbl.6. Using Draft Method 1633 would enable the Division to have more accurate information on a wider range of PFAS compounds present in Suncor’s discharges (40 compounds as opposed to the 25 listed in Table 2 in the draft permit).</p> <p>There is no need to wait until Draft Method 1633 is finalized as a 40 C.F.R. Part 136 method before requiring Suncor to comply with the processes set forth in that method. EPA has recently proposed the use of Draft Method 1633 in federally administered NPDES permits. See, e.g., U.S. Env’t Prot. Agency Region 1, Draft National Pollutant Discharge Elimination System (NPDES) General Permit for Medium Wastewater Treatment Facilities (WWFTs) in Massachusetts, No. MAG590000 at 21-22 (Feb. 8, 2022) (attached as Exhibit 52). And EPA recommends that state permit writers use Draft Method 1633 in NPDES permits immediately:</p> <p style="padding-left: 40px;">This draft method can be used in various applications, including National Pollutant Discharge Elimination System (NPDES) permits. The method will support NPDES implementation by providing a consistent PFAS method that has been tested in a wide variety of wastewaters and contains all the required quality control procedures for a Clean Water Act (CWA) method. While the method is not nationally required for CWA compliance monitoring until EPA has promulgated it through rulemaking, <i>it is recommended now for use in individual permits.</i></p>	<p>Method 1633. Any 40 C.F.R. Part 136 (Appendix B) approved method for analyzing PFAS in non-potable waters available in the future shall replace Draft Method 1633.</p>
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		<p>Press Release, U.S. Env't Prot. Agency, EPA Announces First Validated Laboratory Method to Test for PFAS in Wastewater, Surface Water, Groundwater, Soils (Sept. 2, 2021) (emphasis added) (attached as Exhibit 53).²⁴</p> <p>Requiring the use of Draft Method 1633 is also consistent with Policy 20-1, which states:</p> <p style="padding-left: 40px;">The laboratory selected should be able to perform analysis on wastewater (non-potable) matrices using a method that is compliant with the requirements set forth in the Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories (<i>DoD QSM 5.1 or later</i> [Table B-15: Per- and Polyfluoroalkyl Substances (PFAS) Using Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS) With Isotope Dilution or Internal Standard Quantification in Matrices Other Than Drinking Water]).</p> <p>Policy 20-1 at 6 (emphasis added). In its citation for the DoD QSM, Policy 20-1 states “please refer to the most up-to-date version available.” <i>Id.</i> at 6 n.3. The most recent version of the DoD QSM (version 5.4) was revised in October 2021 to incorporate Draft Method 1633. See Dep’t of Def. & Dep’t of Energy, Consolidated Quality Systems Manual (QSM) for Environmental Laboratories: Version 5.4 at 283, tbl.B-24 (Oct. 2021) (attached as Exhibit 54). As of January 1, 2022, DoD began requiring all new contracts and task orders to use Draft Method 1633. See Memorandum from Off. Assistant Sec. of Def., to Assistant Sec. of Army, Assistant Sec. of Navy, Assistant Sec. of Air Force, Nat’l Guard Bureau Dir., Def. Logistics Agency Dir., Update for Establishing a Consistent Methodology for the Analysis of Per-and Polyfluoroalkyl Substances in Media Other than Drinking Water (Dec. 7, 2021) (attached as Exhibit 55).</p>	
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²⁴ Available at <https://www.epa.gov/newsreleases/epa-announces-first-validated-laboratory-method-test-pfas-wastewater-surface-water>.

		<p>Draft Method 1633 is currently the best available analytical method for measuring PFAS in non-potable waters and the Division should not wait to require Suncor to use Draft Method 1633 until some later step in the finalization process or until it becomes a final 40 C.F.R. Part 136 method. DoD has already demonstrated that Draft Method 1633 is a valid analytical method for PFAS testing in non-drinking water matrices and is even requiring all of its new contracts to use it, and EPA already recommends that permit writers require use of the method in NPDES permits. Draft Method 1633 is also clearly consistent with Policy 20-1. The Division, thus, should require Suncor to use this validated analytical method for PFAS testing in the final permit.</p>	
<p>Permit</p> <p>Fact Sheet</p>	<p>Part I.E.1. at 39-40, Part I.H.3. & 4. at 55-56</p> <p>Part VI.A. at 26-27, Part VIII.C. at 95-96, Part X.E. at 109-11</p>	<p>The Division proposes to give Suncor a full year to come into compliance with the PFAS limits at Outfalls 004, 023, and 026 and does not propose any interim limits on the facility's PFAS discharges during that time. See Fact Sheet at 95-96, 110-11; Draft Permit Part I.E.1. at 39-40, Part I.H.3. & 4. at 55-56. Under the Division's proposed schedule, then, there would be no protections of any kind in place for Suncor's PFAS discharges at these outfalls for an entire year after the final permit is issued. Yet, as discussed above, PFAS is a highly toxic pollutant that poses serious threats to human, plant, animal, and aquatic health. Additionally, the Division did not explain in the Fact Sheet how the proposed compliance schedule requires Suncor to meet its PFAS effluent limits as soon as possible. Accordingly, the Division should shorten the compliance schedule for Outfalls 004, 023, and 026 to six months to ensure Suncor meets its PFAS effluent limits at those outfalls as soon as possible.</p> <p>Permittees generally must comply with effluent limits immediately upon permit issuance to ensure that pollution is not allowed to further degrade stream quality or harm public health before effective controls are put in place. However, the Clean Water Act and Water Quality Control Act allow the Division to include "schedules of compliance" in discharge permits when it is necessary and appropriate to do so, such as when the Division is imposing a new limit or a more stringent limit in a permit for the first time.</p>	<p>To ensure that Suncor meets its effluent limits "as soon as possible," as required by the Clean Water Act and Water Quality Control Act, the Division should shorten the compliance schedule to require Suncor to meet the PFAS effluent limits at Outfalls 004, 023, and 026 within six months of final permit issuance.</p> <p>At the very least, the Division should include an enforceable milestone in the PFAS compliance schedule requiring that, within six months of permit issuance, Suncor will submit a report evaluating whether it can eliminate discharges of PFAS from</p>

		<p>33 U.S.C. § 1311(b)(1)(C); C.R.S. § 25-8-503(4); 5 C.C.R. § 1002-61:61.8(3)(b)(v); 40 C.F.R. § 122.47(a); <i>see also</i> Water Quality Control Div., Clean Water Program Implementation Policy: Permit Compliance Schedules, CW-3 (2014) [hereinafter “Compliance Schedule Policy”] (attached as Exhibit 56)²⁵ (adopting the principles governing permit compliance schedules set forth in Memorandum from Jim Hanlon, Off. of Wastewater Mgmt. Dir., U.S. Env’t Prot. Agency, to Alexis Strauss, Water Div. Dir., Region IX, U.S. Env’t Prot. Agency (May 2007) [hereinafter “EPA 2007 Compliance Schedule Memo”] (attached as Exhibit 57)).²⁶ The Division also must ensure that the compliance schedule requires the permittee to come into compliance with the applicable effluent limit “as soon as possible,” 40 C.F.R. § 122.47(a)(1); Compliance Schedule Policy at 3-4, and must include in the permit an enforceable sequence of actions or operations leading to compliance with the final effluent limitation, 33 U.S.C. § 1362(17); 40 C.F.R. § 122.2; 5 C.C.R. § 1002-61:61.2(94). “The [Division] should not simply presume that a compliance schedule be based on the maximum time period allowed by a State’s authorizing provision.” EPA 2007 Compliance Schedule Memo at 3; Compliance Schedule Policy at 4. Should the Division propose to include a compliance schedule in a permit, it must make the requisite findings based on adequate support in the administrative record and must sufficiently describe its findings in the permit Fact Sheet. EPA 2007 Compliance Schedule Memo at 2; Compliance Schedule Policy at 3.</p> <p>Here, the Division should shorten the compliance schedule for Suncor to attain the PFAS effluent limits at Outfalls 004, 023, and 026 given the serious dangers posed by further PFAS pollution. As discussed above, PFAS are highly toxic “forever chemicals” that bioaccumulate and do not breakdown through natural processes. <i>Supra</i> pp. 14-15, 18-20. They have been shown to be toxic in minute doses and have been linked to numerous serious illnesses, including reproductive and immune system harms, and even cancer. <i>Id.</i> Also as discussed above, Suncor is a major source of PFAS pollution in state waters. Suncor’s own monitoring data shows that the</p>	<p>Outfalls 004, 023, and 026. If Suncor is able to eliminate PFAS discharges from these outfalls all together, the Division should require that, within nine months of permit issuance, Suncor complete any changes or modifications to the facility necessary to eliminate those discharges.</p> <p>If the Division imposes additional limits in the permit for PFAS as a class or for outfalls not currently subject to PFAS limits, as discussed above, the Division must also require Suncor to come into compliance with those limits within six months of permit issuance, or must include the same enforceable milestone noted above.</p>
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²⁵ Available at https://drive.google.com/file/d/18E_Mh208kfv85gDIVBHUUpUznwraEZEzC/view.

²⁶ Available at https://www.epa.gov/sites/default/files/2015-09/documents/memo_complianceschedules_may07.pdf.

		<p>facility has been and continues to discharge extremely large quantities of PFAS, far exceeding the Policy 20-1 translation levels and the effluent limits the Division proposes for this draft permit. <i>Supra</i> pp. 10-11, 20-21. Despite the serious risks posed by Suncor's continued PFAS discharges, the Division proposes to leave communities and surface waters without any protections from those discharges at Outfalls 004, 023, and 026 for an entire year after the permit is finalized.</p> <p>Furthermore, the Division fails to explain the need for an extended year-long compliance schedule anywhere in the Fact Sheet. In its Reasonable Potential analysis for PFAS, the Division states only that, because the PFAS effluent limits are new and it is unknown whether Suncor can comply with the limits at Outfalls 004, 023, and 026 immediately, the Division proposes to add a compliance schedule to the permit. See Fact Sheet at 95-96. The explanation in the compliance schedule section of the Fact Sheet is even more vague, applying generally to all the parameters for which the Division has determined a compliance schedule is necessary and appropriate. As to whether the compliance schedule requires Suncor to meet its effluent limits as soon as possible, the Division states only that:</p> <p style="padding-left: 40px;">[T]he duration of the schedules allows for time to collect the necessary data to determine whether the limitation can be met and to meet the final effluent limit, and/or plan, design, and construct upgrades to the treatment process, time it would take to identify and characterize sources (as applicable), develop and evaluate strategies for control, and select and implement the preferred strategy for control, the time is expected to take to characterize the effluent in future operational conditions to establish the level of reduction needed, to evaluate source control strategies, and if necessary, to implement in plant controls to reduce effluent temperature, etc.</p> <p><i>Id.</i> at 110. This explanation is so generic as to be meaningless, and certainly fails to demonstrate that the Division properly determined that the full-year compliance schedule for Suncor's PFAS limits is based on</p>	
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		<p>adequate support in the record. EPA 2007 Compliance Schedule Memo at 2; Compliance Schedule Policy at 3, 10.</p> <p>Indeed, the Division has a history of failing to adequately explain and support its decisions to include compliance schedules in discharge permits. During a 2018 permitting review, EPA noted that the Division’s “fact sheets provided little detail as to the basis for the compliance schedule and did not clearly identify necessary interim compliance dates and milestones. . . . [F]act sheets would be strengthened by a thorough discussion of the justification as to why a compliance schedule is necessary and leads to compliance with a final [effluent limit] as soon as possible.” U.S. Env’t Prot. Agency, Final Region 8 NPDES Permit Quality Review: Colorado at 44-45, 49 (Sept. 24, 2018) (attached as Exhibit 58).</p> <p>Based on the dangers posed by Suncor’s PFAS discharges and the Division’s failure to adequately explain the basis for a year-long compliance schedule, the Division should shorten the compliance schedule to require Suncor to meet the PFAS effluent limits at Outfalls 004, 023, and 026 within six months of final permit issuance to ensure that Suncor complies with those limits “as soon as possible.”</p> <p>At the very least, the Division should include an enforceable milestone in the PFAS compliance schedule requiring that, within six months of permit issuance, Suncor will submit a report evaluating whether it can eliminate discharges of PFAS from Outfalls 004, 023, and 026. If Suncor is able to eliminate PFAS discharges from these outfalls all together, the Division should require that, within nine months of permit issuance, Suncor complete any changes or modifications to the facility necessary to eliminate those discharges.</p>	
Permit Fact Sheet	<p>Part I.G.2. at 48-49</p> <p>Part VI.A. at 26</p>	<p>The permittee must submit a facility PFAS use, storage and release study. The study elements are outlined and provide a good starting point for understanding current PFAS use at the facility. Fact Sheet at 26; Draft Permit at 48-49. However, to develop a robust site conceptual model of</p>	<p>The Division should require Suncor to add the following elements to the PFAS Use, Storage, and Release Study:</p>

		<p>historic PFAS releases that may then be useful to guide source area identification and remediation, additional elements should be included. These elements will also be useful for characterizing the composition and makeup of PFAS constituents likely to have been released at the Suncor site.</p>	<p>(A) a description of and map(s) showing the locations of historic fires that were fought with PFAS-containing foam, historic firefighting training locations where PFAS-containing foams were used, spilled, or leaked, and historic PFAS-foam storage locations;</p> <p>(B) a timeline of historic PFAS-containing foam use for fire suppression or firefighting training at the facility, as well as historic spill or leak events;</p> <p>(C) a description of whether secondary containment was used for historic PFAS-containing foam storage, and other information pertinent to locating PFAS source areas caused by spills during foam storage and handling;</p> <p>(D) a description of firefighter training procedures, equipment testing and maintenance procedures, and cleanout locations for fire suppression systems and any other equipment coming in contact with PFAS foam;</p>
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Permit	Part II.O. at 76	As described above, the Policy 20-1 translation levels, and the Division's proposed effluent limits for PFOA and PFOS, are predicated on EPA's 2016	The Division should update the Fact Sheet to reflect that

Fact Sheet	Section VI.A. at 24-25	<p>Health Advisory. However, EPA’s Health Advisory for PFOA and PFOS is woefully out of date and no longer represents the latest scientific understanding of the health effects of PFAS exposure.</p> <p>In fact, EPA is in the process of revising its health advisory levels for PFOA and PFOS “as quickly as possible” and now believes that “negative health effects may occur at much lower levels of exposure to PFOA and PFOS than previously understood and that PFOA is a likely carcinogen.” Press Release, U.S. Env’t Prot. Agency, EPA Advances Science to Protect the Public from PFOA and PFOS in Drinking Water (Nov. 16, 2021) (attached as Exhibit 59). EPA will likely issue much lower health advisory levels for PFOA and PFOS before this draft permit is finalized. Also as described above, ATSDR finalized its toxicity profile for several PFAS compounds in 2021, including PFOS, PFOA, PFNA, and PFHxS. ATSDR concluded that these PFAS chemicals have more potent toxicity values than those in EPA’s 2016 health advisory, which would correspond to drinking water level concentrations of 29 ppt for the sum of PFOS+PFOA+PFNA. <i>Supra</i> pp. 18-20.</p> <p>In addition to updating the health advisory levels for PFOA and PFOS, EPA is expected to propose national drinking water standards for these two PFAS compounds by the end of 2022, while evaluating additional PFAS and groups of PFAS for future drinking water standards. See Env’t Prot. Agency, Analyses to Support EPA’s National Primary Drinking Water Rulemaking for PFAS (last viewed Feb. 9, 2022).²⁷ EPA is also working on several other draft regulations and guidance documents under its Clean Water Act and Safe Drinking Water Act programs, including:</p> <ul style="list-style-type: none"> Proposing new ELGs for certain facilities known to manufacture PFAS compounds or produce products containing PFAS. To date EPA has not proposed to revise ELGs to limit PFAS discharges for the petroleum refining industrial category, though some of the Conservation and Justice Groups have filed comments urging the agency to do so. 	<p>ATSDR’s final toxicity values for PFOS, PFOA, PFNA, and PFHxS indicate that these compounds are more potent than described in EPA’s 2016 Health Advisory. It should also describe that EPA is expected to issue new, more protective health advisory levels for PFOA and PFOS in 2022, as well as new drinking water standards, NPDES permitting guidance, ambient water criteria for PFAS, and revised ELGs for the petroleum refining industrial category.</p> <p>Finally, the Division should expand its list of factors that trigger immediate permit modification to include new EPA PFAS health advisory levels for PFAS, new EPA PFAS Toxicity Assessments, EPA PFAS Water Quality Criteria, any permit conditions recommended in EPA’s PFAS NPDES Permit Guidance, and stormwater monitoring data demonstrating PFAS discharges that exceed</p>
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²⁷ Available at https://sab.epa.gov/ords/sab/f?p=100:18:16490947993:::RP,18:P18_ID:2601.

		<ul style="list-style-type: none"> • Publishing ambient water quality criteria for PFAS for aquatic life and human health. The aquatic life criteria is expected by the end of 2022, and the human health criteria by the end of 2024. • Issuing new guidance to state permitting authorities to address PFAS in NPDES permits by the end of 2022. This guidance will recommend that state permit writers use analytical method 1633, which covers 40 PFAS compounds, as well as recommend a full suite of permitting approaches for PFAS. • Publishing Health Advisory Levels for PFBS, expected in 2022. • Publishing final toxicity assessments for PFBA, PFHxA, PFHxS, PFNA, and PFDA. <p>See U.S. Env't Prot. Agency, PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024 (2021) (attached as Exhibit 60).²⁸</p> <p>EPA and ATSDR are, thus, taking much needed action to address the serious human, animal, and aquatic health threats posed by PFAS. The Division should acknowledge EPA's actions and update the Fact Sheet to incorporate EPA's and ATSDR's new analyses.</p> <p>Moreover, if EPA and ATSDR finalize these various actions during the life of Suncor's renewed discharge permit, these federal actions would warrant immediate permit modification, including but not limited to:</p> <ul style="list-style-type: none"> • EPA Health Advisory Levels for PFAS: should EPA issue revised health advisory levels for PFOA and PFOS, or any other PFAS compounds (such as PFBS) that are more restrictive than any of the PFAS effluent limits in Suncor's final discharge permit, the Division should modify the permit to incorporate EPA's revised advisory levels for PFAS. • New Toxicological Reports on PFAS compounds: should EPA issue new toxicological assessments for PFBA, PFHxA, PFHxS, PFNA, and PFDA, or any other PFAS compounds, that demonstrate the need for 	effluent limits for Suncor's process water outfalls.
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²⁸ Available at <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>.

		<p>more protective effluent limits than those included in Suncor’s final permit, the Division should modify Suncor’s discharge permit to require more health protective effluent limits for PFAS based on those assessments.</p> <ul style="list-style-type: none"> • EPA Water Quality Criteria for PFAS: should EPA issue ambient water quality criteria for PFAS, the Division should modify the permit to revise Suncor’s PFAS effluent limits to ensure they are protective of aquatic life and/or human health. • EPA NPDES Permit Guidance for PFAS: should EPA issue a NPDES Permit Guidance for PFAS that recommends specific protective permit conditions not already required in this permit, the Division should modify the permit to incorporate the more protective permit conditions. <p>Additionally, as described above, the Division must impose numeric PFAS effluent limits for Suncor’s stormwater outfalls in the final permit. See <i>supra</i> pp. 21-25. However, if the Division does not impose numeric effluent limits for Suncor’s stormwater outfalls in the final permit, the Division should modify the permit to impose numeric effluent limits for the stormwater outfalls if Suncor’s monitoring data demonstrate that PFAS levels at the stormwater outfalls exceed the effluent limits for PFAS at the process water outfalls.</p>	
Permit	Part I.E.1. at 11, 18, 28, Part I.F. at 43-48	Suncor’s industrial processes generate a host of toxic chemicals and produce an extremely complex effluent with undeniable cumulative effects on aquatic life. The facility also has a history of violating its water quality permit and, more specifically, failing whole effluent toxicity (WET) testing. As a result, it is critical that the final permit impose robust WET testing requirements on all applicable outfalls and that the consequences of WET testing failures are immediate and effective.	The Division should retain in the final permit the monthly chronic WET testing for outfall 023 and the monthly acute WET testing for outfalls 004 and 026. The Division must require twice monthly WET testing for effluent from Outfall 020 given Suncor’s history of WET test failures. The Division must also require Suncor to conduct monthly
Fact Sheet	Part III.G. at 6, Part V.C. at 13, tbl.V-I		
Water Quality Assessment	Part VI. at 56-57	WET testing is a vital component to implementing water quality standards under the discharge permitting program in accordance with Clean Water Act Section 402. The testing advances the goals of Clean Water Act Sections 101(a) and (2) and particularly the aim to “restore and maintain	

		<p>the chemical, physical and biological integrity of the Nation's waters” so as to improve “water quality which provides for the protection and propagation of fish [and] shellfish.” 33 U.S.C. § 1251(a)(2). WET testing requirements are critical components of Colorado discharge permits, ensuring that wastewater effluent discharged into surface waters does not negatively impact aquatic ecosystems. To this end, organisms are exposed to various effluent concentrations for a specific time period in order to estimate the effluent’s toxicity. The goal is to simulate what actually happens in the aquatic environment when the effluent is introduced to a receiving water and to promptly address indications that the effluent is having an adverse impact on aquatic life.</p> <p>In a familiar pattern of permit violations, Suncor failed its June 2021 WET test at Outfall 020A. Fact Sheet at 43. As the Fact Sheet further recounts, Suncor has a history of repeated WET test failures at its prior internal Outfall 010A, stretching back to 2013. <i>Id.</i> at 57-58. Apparently, for only the June 2021 failure at Outfall 020A and the Quarter 1 2016 failure at Outfall 010A, Suncor undertook subsequent “accelerated” WET testing, which it passed. <i>Id.</i> at 58. Although the Fact Sheet does not provide details on how the accelerated testing was “passed,” it can be assumed that, based on the further testing, no pattern of toxicity was found. See, e.g., Water Quality Control Div., Policy No. WPC Program - Permits - 1, Implementation of the Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity at 12-13 (Sept. 30, 2010) [hereinafter “WET Testing Policy”] (attached as Exhibit 61).²⁹</p> <p>Of further note, according to the Fact Sheet: “Suncor uses 41 chemicals in their treatment processes; Suncor documented that all 41 chemicals were used in the previous permit term. The 2012 fact sheet states that 27 chemicals were approved for use.” Fact Sheet at 12. Moreover, as the Fact Sheet explains, WET testing is critical to determining the toxicity of the 41 chemicals Suncor employs at, and discharges from, its facility. <i>Id.</i> at 13, tbl.V-I.</p>	<p>WET testing at all other external outfalls to Sand Creek, including outfalls 021, 022, 024, 025, 027, and 028.</p> <p>Additionally, the Division should shorten the compliance schedule to require Suncor to meet WET Testing requirements for Outfalls 004A, 023A and 026A immediately, or within six months of final permit issuance.</p> <p>The Division should also characterize Suncor’s discharges as constituting a significant level of erratic toxicity and require Suncor to take steps to reduce the toxicity of the facility’s effluent. The Division should also update boilerplate language for TRE automatic response consistent with the proposed language below. And, should Suncor conduct any “accelerated testing” after a WET Test failure, the Division should provide the details of that accelerated testing to the public, along</p>
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²⁹ Available at https://drive.google.com/file/d/18chthJPH_F3tm_L2vRtnm4WYsUhdOdW1/view.

		<p>In this context, the Division assesses the in-stream waste concentration for four outfalls—020, 004, 023 and 026—and imposes monthly chronic WET testing on outfalls 020 and 023 and monthly acute WET testing on outfalls 004 and 026. Draft Permit at 11, 18, 28, 43, 45-46; Water Quality Assessment at 57.</p> <p>Because of the broad variety of toxic chemicals discharged through the outfalls and the significant potential that these chemicals will have cumulative adverse impacts on aquatic life, the Conservation and Justice Groups strongly support the draft permit terms that impose monthly WET testing requirements on outfalls 004, 023 and 026. However, Suncor’s history of repeated WET test failures and mix of toxic contaminants in its effluent underscore the need for more frequent WET testing at Outfall 020. As a result, the Division should require Suncor to conduct twice monthly WET tests at Outfall 020. Additionally, while the Division analyzes outfalls 020, 004, 023, and 026 to determine which WET testing mandates should apply, there is no analogous analysis for other external outfalls to Sand Creek—Outfalls 021, 022, 024, 025, 027, and 028. Yet, these external outfalls similarly discharge a potentially toxic mix of chemicals into Colorado waters. Therefore, the Division must also require Suncor to conduct monthly WET testing for the effluent from Outfalls 021, 022, 024, 025, 027, and 028.</p> <p>The possibility that discharges from Suncor’s other external outfalls will adversely impact Sand Creek is of particular concern given Suncor’s history of repeated permit violations and unlawful discharges of dangerous pollution into receiving waters. These permit violations include exceedances of permit limitations, the use and discharge of unauthorized chemicals, discharging non-stormwater through stormwater outfalls without authorization or treatment, improper design and maintenance of stormwater controls, and unrepresentative sampling. See Fact Sheet at 27-31. These violations, whether individually or cumulatively, could result and possibly have resulted in undetected discharges that are toxic to aquatic life. It is, thus, especially warranted that the final permit broadly use WET</p>	<p>with the Division’s analysis of and response to the testing.</p> <p>Finally, the Division must explain the current makeup and fate of the previous Outfall 010 effluent and ensure that final WET testing requirements are sufficient to protect Sand Creek’s aquatic life from any discharges containing the effluent that led to the WET testing failures at prior Outfall 010.</p> <p>Toxicity Reduction Evaluation (TRE) Language:</p> <p>(A) The Discharger shall prepare a generic TRE work plan within 90 days of the effective date of this Permit to be ready to respond to toxicity events. The Discharger shall review and update the work plan as necessary so that it remains current and applicable to the discharge and discharge facilities.</p> <p>(B) Within 30 days of exceeding a chronic toxicity trigger, the Discharger shall submit a TRE work plan,</p>
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		<p>testing as a crucial mechanism to protect downstream aquatic life from Suncor's discharges.</p> <p>In addition, while multiple WET testing failures were recorded at Outfall 010, the record is unclear as to how concerns about the failures at this prior Outfall have been accounted for in the draft permit. For example, there is no explanation how the previous Toxicity Identification Evaluation (TIE)/Toxicity Reduction Evaluation (TRE) testing results impacted either effluent limitations in the draft permit or, more importantly, Suncor's treatment of waste discharges from Outfall 010. Additionally, the Fact Sheet does not explain how the Division plans to address the problematic effluent that previously went through Outfall 010 now that this outfall has been eliminated. All the Fact Sheet says with regard to the elimination of this outfalls is that Suncor will now be required to conduct direct sampling at internal outfalls 002 and 003. <i>Id.</i> at 6. As a result, the Division must explain the current makeup and fate of the previous Outfall 010 effluent and ensure that final WET testing requirements are sufficient to protect Sand Creek's aquatic life from any discharges containing the effluent that led to the WET testing failures at prior Outfall 010.</p> <p>Moreover, despite the threat posed to aquatic life by any effluent that fails a WET test, the draft permit proposes delaying the effectiveness of the monthly acute WET limits for Outfalls 004A and 026A and the monthly chronic WET limits for Outfall 023A for a year after the effective date of the permit. Draft Permit at 18-19, 28. This delay is particularly problematic because, even after the effective date, the draft permit does not require immediate corrective action in response to a WET testing failure. Therefore, the Division should shorten the compliance schedule to require Suncor to meet WET testing requirements for Outfalls 004A, 023A and 026A immediately, or within six months of final permit issuance. 33 U.S.C. § 1311(b)(1)(C); C.R.S. § 25-8-503(4); 5 C.C.R. § 1002-61:61.8(3); 40 C.F.R. § 122.47(a)(1); <i>see also</i> Compliance Schedule Policy.</p> <p>Finally, as mentioned above, for only the June 2021 failure at Outfall 020A and the Quarter 1 2016 failure at Outfall 010A, Suncor undertook</p>	<p>which shall be the generic work plan revised as appropriate for this toxicity event after consideration of available discharge data.</p> <p>(C) Within 30 days of completing an accelerated monitoring test observed to exceed a trigger, the Discharger shall initiate a TRE in accordance with a TRE work plan that incorporates any and all comments from the Executive Officer.</p> <p>(D) The TRE shall be specific to the discharge and be in accordance with current technical guidance and reference materials, including U.S. EPA guidance materials. The Discharger shall conduct the TRE as a tiered evaluation as summarized below:</p> <ul style="list-style-type: none"> i. Tier 1 shall consist of basic data collection (routine and accelerated monitoring). ii. Tier 2 shall consist of evaluation of treatment process optimization, including operational practices and in-plant process chemicals.
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		<p>discharger prepare a TRE if and when it fails WET testing. <i>See, e.g.,</i> Cal. Water Bd., Order No. R2-2014-0010, NPDES No. CA0030210, at E-8 to E-9 (PDF 40-41) (Mar. 12, 2014, effective May 1, 2014) [hereinafter “R2-2014-0010”] (attached as Exhibit 62). Without such safeguards, the facility will essentially be licensed to periodically discharge effluent that constitutes a real threat to the aquatic ecosystem of Sand Creek without meaningful repercussions.</p>	<p>(G) As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the toxic substances from the discharge. The Discharger shall take all reasonable steps to reduce toxicity to levels below the chronic toxicity limit.</p> <p>(H) Many recommended TRE elements parallel required or recommended efforts related to source control, pollution prevention, and stormwater control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements or recommended efforts of such programs may be acceptable to demonstrate compliance with TRE requirements.</p> <p>(I) Chronic toxicity may be episodic and identification of causes of and reduction of sources of chronic toxicity may not be successful.</p>
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			Enforcement considerations will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.
Permit Fact Sheet	Part I.G.4. at 12 Part VI.C.2.-4. at 34-37	<p>Suncor has repeatedly violated its permit, leading to unlawful discharges and the polluting of receiving waters with dangerous contaminants. These violations include exceeding permit limitations, using and discharging unauthorized chemicals, discharging non-stormwater through stormwater outfalls without authorization or treatment, improperly designing and maintaining stormwater controls, and employing unrepresentative sampling. Fact Sheet at 27-31. In response, the Division has proposed modifications to the permit that the agency hopes will prevent future violations, spills, and maintenance failures.</p> <p>While the Conservation and Justice Groups strongly support the proposed changes to Suncor's permit intended to secure compliance with the permit terms and conditions, <i>see</i> Fact Sheet at 31 ("The division has worked to address these issues in this draft permit to the extent that the requirements are not already clearly outlined in the current permit."), our Groups are alarmed by Suncor's problematic track record of violating its permit. These violations have resulted in unacceptable discharges of toxic effluent into Colorado's waters.</p> <p>As a result, the Division's proposed permit terms and conditions designed to secure compliance are not enough to protect water quality, public health, and the environment. Rather, additional readily enforceable safeguards and infrastructure changes must be built into the permit that will more rigorously prevent violations and help reduce the adverse impact of any future violations, as described below. Unless the Division strengthens the permit in these ways, the final permit will be deficient. <i>See</i> 5 C.C.R. § 1002-61:61.8(1)(b) ("The division shall not issue a permit under the</p>	<p>The Division must impose additional permit requirements to adequately address Suncor's history of repeated permit violations, spills, and leaks.</p> <p>First, to address illegal discharges from the facility's stormwater ponds, the Division should: (A) require Suncor to increase the stormwater capacity at Webber's Pond, Finger Lake, Mary's Pond, and the Sand Creek Swale Pond; (B) adopt a water-flow schematic/flow configuration as a part of the final permit that specifies how and where wastewater is allowed to be discharged from Suncor's facility to Sand Creek; and (C) include an additional prohibition in the final permit, stating "Discharge of treated or untreated wastewater at a</p>

		<p>following circumstances . . . (iii) When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States.”).</p> <p>The Division acknowledges that “Webber’s Lake and Finger Pond (which collect stormwater runoff and non-stormwater sources, including firefighting training waters, from throughout Plant 1), has discharged to both the Burlington Ditch and Sand Creek” during various storm events. Fact Sheet at 31-32. Importantly, the Burlington Ditch is a source of drinking water for the Denver Metropolitan Area. <i>Id.</i> at 26. The Division also declares, “[a] primary aim in this permit is to protect the Burlington Ditch from unpermitted discharges from the Suncor site, either of stormwater, co-mingled process water, or contaminated groundwater.” <i>Id.</i> at 35. To effectuate this goal, the Divisions proposes that the draft permit “specifically exclude[] from the permit discharges from those ponds to state waters.” <i>Id.</i> at 32; <i>see also id.</i> (“First, the draft permit explicitly excludes from permit coverage any discharges to state waters from Webber’s Pond and Finger Lake, other than to external outfall 020A following treatment at the WWTP.”). The Division also proposes to require Suncor to inspect Webber’s Lake and Finger Pond (sometimes referred to as Finger Lake) eight times a year. <i>Id.</i> at 7.</p> <p>As a general matter, the Conservation and Justice Groups support these permit modifications designed to prevent unlawful discharges from Webber’s and Finger Lakes. However, there is no indication in the record that by merely inspecting its facilities Suncor will prevent future unlawful discharges. Rather what is needed to ensure compliance is a significant redesign of the facility. <i>See, e.g., id.</i> at 29 (attributing unlawful discharges to the fact that there is “[n]ot enough stormwater capacity at Webber’s Pond, Finger Lake, Mary’s Pond, and the Sand Creek Swale Pond[.]”).</p> <p>First, our Groups support the Division’s proposed new provisions that explicitly prohibit discharges from Webber’s Pond and Finger Lake. <i>Id.</i> at 36. As is evidenced throughout the draft permit and Fact Sheet, Suncor has</p>	<p>location or in a manner different from that described in this permit is prohibited”; and (4) mandate monthly inspections for Webber’s Pond, Finger Lake, Mary’s Pond, and the Sand Creek Swale Pond.</p> <p>Second, to adequately protect the Burlington Ditch from illegal discharges of contaminated groundwater, the Division should require Suncor to line the Burlington Ditch within a year of the effective date of the permit.</p> <p>Finally, to adequately protect Sand Creek from illegal discharges of contaminated groundwater, the Division should: (A) improve the Paired Well Evaluation by requiring Suncor to monitor, evaluate, and report on the benzene and PFAS concentrations at the paired wells near the barrier wall on a monthly basis; (B) require Suncor to include additional well and piezometer pairs in the Paired Well Study, including the following well pair locations:</p>
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		<p>a long history of discharging waste in violation of its permit, the Clean Water Act, and the Water Quality Control Act. Including this specific discharge prohibition will discourage Suncor from violating its permit in the future. However, the general discharge prohibition could be strengthened dramatically. Thus, the Division should include the following language in the final permit: “Discharge of treated or untreated wastewater at a location or in a manner different from that described in this permit is prohibited.”</p> <p>Second, the Division should require Suncor to increase the stormwater capacity at Webber’s Pond, Finger Lake, Mary’s Pond, and the Sand Creek Swale Pond. Plainly, this is a straightforward way to require immediate steps to address the already-identified causes of illegal discharges. Although the Groups support the Division’s proposed prohibition on discharges from stormwater ponds, the prohibition alone is not sufficient to prevent illegal discharges. To simply prohibit discharges from Webber’s Pond and Finger Lake invites a repeat of the past—periodic unlawful discharges from these facilities during storm events and, years later, a response that does not ensure that Colorado waters will be protected from toxic effluent. <i>E.g. id.</i> at 33 (“Concerns were also raised by the public during the stakeholder process that fining Suncor after the fact for spills and seeps has not led to the cessation of such spills and seeps.”).</p> <p>Third, the Division should include a water-flow schematic/flow configuration as a part of the final permit that specifies how and where wastewater is allowed to be discharged from Suncor’s facility to Sand Creek. Other states have required similar flow configurations for complex facilities. See, <i>e.g.</i>, R2-2014-0010 at PDF 23, fig.C-3. A water-flow schematic will help future regulators and the public understand how wastewater and stormwater flows from this complex facility. It will also provide clarity if water is improperly discharged in violation of the permit in the future.</p>	<ul style="list-style-type: none"> • BCMW-01N/BCMW-01S • BCMW-02N/BCMW-02S • BCMW-03S/BCMW-03N • BCMW-04S/BCMW-04N • BCMW-05N/BCMW-05S • WPBML-01A/BCMW-06 • BCPZ-05N/BCPZ-05S • BCPZ-06N/BCPZ-06S • BCPZ-07NR/BCPZ-07S • BCPZ-08N/BCPZ-08S • BCPZ-09N/BCPZ-09S <p>(C) require Suncor to install replacement wells if any of the wells listed above are abandoned or inaccessible; and (D) prohibit Suncor from discharging any untreated contaminated groundwater into Sand Creek and mandate that any contaminated groundwater be treated before discharge into Sand Creek.</p>
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		<p>report establishing how it will protect the ditch from seepage in the future. <i>Id.</i></p> <p>The Division must substantially strengthen the final permit to do more to protect the Burlington Ditch. Afterall, strong protection of drinking water, particularly from the toxic groundwater beneath the Suncor facility, is squarely in the public interest. As a result, the Division should take prompt and aggressive action in the final permit to prevent any future discharges of contaminated groundwater into the ditch. Immediate action is particularly warranted given the long time that has elapsed since the 2017 study, when apparently nothing was done to address the report's significant findings. Further, the study itself made important findings, each pointing to a substantial risk that contaminated groundwater is indeed leaking into the Burlington Ditch.</p> <p>Therefore, the Division should require Suncor to line the Burlington Ditch within a year of the effective date of the final permit. This is the best way to immediately safeguard drinking water supplies and to ensure long-term protections. The Division's proposal allowing Suncor to conduct a two-year study, in contrast, implements a lengthy process that fails to address the threat that the facility's groundwater poses to a source of drinking water. Moreover, this process is nonconclusive. For example, it is difficult to understand the effectiveness of the requirement that, should the study be indeterminant, Suncor apply for a permit modification for presumably unspecified seep discharges. Similarly, the requirement that Suncor plan how it will protect the Ditch in the future is unconvincing and seems to be yet another delay in securing the real protection that site conditions demand—the lining of the Burlington Ditch.</p> <p>Finally, the Division must take further steps to protect Sand Creek from illegal discharges of contaminated groundwater. The Division proposes in the draft permit to protect Sand Creek from discharges of contaminated groundwater by requiring Suncor to undertake a Paired Well Evaluation, which includes monitoring for benzene and PFAS at the barrier wall at least quarterly, and inspecting and reviewing data to look for evidence of seeps</p>	
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		<p>and other illegal releases. Draft Permit at 52. However, the Division only requires Suncor to include two sets of paired wells—BCMW-03S/BCMW-03N, and BCMW-04S/BCMW-04N—near Suncor’s groundwater barrier wall and states that other well pairs <u>may</u> be included. <i>See id.</i> (stating that the Paired Well study includes “but [is] not limited to BCMW-03S and BCMW-03N and BCMW-04S and BCMW-04N”). Monitoring the entire length of the approximately 2,500-foot barrier wall using just two paired well locations is insufficient to evaluate potential pollutant discharges through the barrier wall. Because evidence in the record already confirms that contaminated groundwater from the Suncor site is being discharged into Sand Creek, e.g., <i>id.</i> at 33 (“[S]eeps of polluted groundwater at the Suncor site have discharged to Sand Creek in the past, sometimes as reported spills.”), the Division must do more in the final permit to prevent such discharges.</p> <p>Therefore, the Division should require Suncor to monitor, evaluate, and report on benzene and PFAS levels around the barrier wall on a monthly basis. The Division must also require, rather than merely allow, Suncor to include more monitoring well pairs in the Paired Well Evaluation, as other monitoring well and piezometer pairs are available along the length of the barrier wall to evaluate whether contaminated groundwater is leaking through the wall and contributing to pollutant loading in Sand Creek.</p> <p>Further, in keeping with other steps that the Division has taken to protect Sand Creek from untreated and unpermitted discharges and our requests elsewhere in these comments, the Division should also prohibit discharges of contaminated groundwater into Sand Creek. Plainly put, the final permit should be clear: there shall be no discharges of contaminated groundwater into Sand Creek and no path toward securing authorization for such discharges. Rather, the Division must require Suncor to prevent such discharges and to treat any contaminated groundwater before discharging.</p>	
Permit	Part I.G.3. at 49	A mixing zone is a limited area of water where initial dilution of a discharge takes place and where water quality criteria can be exceeded. In authorizing mixing zones, the Division must ensure that there is no	The Division should improve Mixing Zone requirements in the final permit by:

Fact Sheet Water Quality Assessment	Part VIII.A.4. at 68 Part IV. at 23	<p>impairment of the designated use of the waterbody as a whole and that the zone does not impede progress toward the goals of restoring and maintaining the physical, chemical, and biological integrity of Colorado’s waters. The Division may reduce the amount of available assimilative capacity for a mixing zone based on a mixing zone analysis or other factors, including: (1) the presence of other dischargers in the vicinity; (2) the presence of a water diversion downstream of the discharge (in the mixing zone); (3) the need to provide a zone of passage for aquatic life; (4) the likelihood of bioaccumulation of toxins in fish or wildlife; (5) habitat considerations such as fish spawning or nursery areas; (6) the presence of threatened and endangered species; (7) potential for human exposure through drinking water or recreation; (8) the possibility that aquatic life will be attracted to the effluent plume; (9) the potential for adverse effects on groundwater; and (10) the toxicity or persistence of the substance discharged. 5 C.C.R. § 1002-31:31.10(5); Water Quality Assessment at 23.</p> <p>Here, the Division notes that it has decided to undertake “two separate mixing zone study determinations. One for outfalls 023 and 020 and another for outfalls 004 and 026.” Fact Sheet at 68. Given Suncor’s proclivity to violate its permit, unpermitted discharges of contaminated groundwater to Sand Creek and the toxicity of its effluent, it is probable that discharges from outfalls 023 and 020 and outfalls 004 and 026 have a cumulative adverse impact on the designated uses of Sand Creek. This is particularly true because the two mixing zones are only 2,000 feet apart and the basis for the Division’s decision to require two separate mixing zone studies rests in part on a January 2016 study. <i>See id.</i> Moreover, the Division determined that more analysis was required for outfalls 004 and 026 before the agency could establish whether the mixing zone regulation “may affect the setting of effluent limits in this permit.” <i>Id.</i> Therefore, in evaluating the applicability of mixing zones to the Suncor outfalls, the Division should assess the cumulative impact of the effluent from all four outfalls.</p>	<p>(A) evaluating the applicability of mixing zones and assimilative capacity to the Suncor outfalls and assess the cumulative impact of the effluent from all four outfalls—outfalls 004, 020, 023, and 026;</p> <p>(B) considering the application of the “other factors” including “likelihood of bioaccumulation of toxins in fish or wildlife” or “the toxicity or persistence of the substances discharged” to determine the assimilative capacity available to outfalls 004, 020, 023, and 026;</p> <p>(C) reducing the amount of assimilative capacity available for outfalls 004, 020, 023, and 026; and</p> <p>(D) requiring Suncor to complete the analysis relevant to the Mixing Zone Regulations for outfalls 004 and 026, <i>see</i> Draft Permit at 49, as soon as possible and, should the results of this study warrant, that the Suncor permit be modified as</p>
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		<p>Further, the Division concludes that effluent from Outfall 020 may use 100 percent of the available assimilative capacity in Sand Creek. Water Quality Assessment at 23. The Division then states that the “other factors” that could reduce the amount of assimilative capacity are not applicable to Outfall 020. <i>Id.</i> (stating “the discharge is not to a T&E stream segment, and is not expected to have an influence on any of the other factors listed above.”); <i>see also</i> 5 C.C.R. § 1002-31:31.10(5). However, other than making this statement the Water Quality Assessment analysis does not address these factors or explain why they are not applicable to the Outfall 020 effluent. Rather, examination of the anticipated character of Outfall 020 effluent, <i>e.g.</i> Draft Permit at 9-16, demonstrates that, at a minimum, the Division must consider the “likelihood of bioaccumulation of toxins in fish or wildlife” or “the toxicity or persistence of the substances discharged” as a result of the discharge. <i>See</i> Water Quality Assessment at 23. Thus, in light of the toxicity of Suncor’s effluent, seeps of contaminated groundwater into Sand Creek, and the repeated failures of Suncor to comply with its permit, the Division should reduce the amount of assimilative capacity available for discharges from Outfall 020.</p> <p>The Division should apply the same analysis outfalls 004, 023 and 026. Again, without analysis, the Division states that none of the other factors are relevant to its determination that 100 percent of the assimilative capacity is available for these discharges. <i>Id.</i> The Division must consider the applicability of the factors to these outfalls and, based on the considerations above, reduce the amount of assimilative capacity available for these discharges.</p> <p>Finally, in the Fact Sheet, the Division explains that, for the purposes of outfalls 004 and 026, Suncor is a “major” facility and the “permittee must perform additional studies to determine if further requirements apply.” Fact Sheet at 68. However, the Draft Permit apparently gives Suncor “6 months prior to permit expiration” to complete the necessary analysis. Draft Permit at 49. Rather than providing Suncor with this extended compliance schedule, the Division should require Suncor to complete the Mixing Zone studies as soon as possible by mandating that Suncor collect</p>	<p>soon as possible to incorporate the findings of the report.</p>
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<p>N/A: neither the Permit nor the Fact Sheet address in-stream monitoring</p>	N/A	<p>Suncor has a long history of illegally discharging benzene or other petroleum products to Sand Creek through seeps where polluted groundwater water is allowed to escape. <i>See, e.g., Sierra Club v. Colo. Ref. Co.</i>, 838 F. Supp. 1428 (D. Colo. 1993). The Suncor facility is also located on top of sandy alluvial soils adjacent to two major waterways. It is highly likely that petroleum products have accidentally spilled all over the facility throughout the years, and are now present in high concentrations throughout. The groundwater barrier wall provides some level of protection, but new seeps could form at any time.</p> <p>Given this history, the Division should require Suncor to undertake regular in-stream monitoring of Sand Creek, both upstream of its facility and at points adjacent to Suncor's operations. This monitoring could help detect the presence of new seeps before they result in a situation as dramatic as a visible oily sheen on surface waters. Other states have required receiving water monitoring for similar complex industrial facilities with a long history of non-compliance. <i>See</i> R2-2014-0010 at E-9 to E-10 (PDF 42-43).</p> <p>The Division should also adopt general permit provisions requiring Suncor to meet in stream water quality standards in the stretches of Sand Creek and the South Platte River adjacent to and downstream of the facility. These general provisions will help to maintain the quality of water in Sand Creek and the South Platte. California, for example, has required such provisions in discharge permits to protect numeric and narrative water quality standards. <i>See</i> R2-2014-0010 at 7-8. The Division should, thus, adopt the following receiving water limitations:</p> <p>RECEIVING WATER LIMITATIONS</p>	<p>To ensure that Sand Creek is protected from illegal discharges, the Division should require Suncor to conduct in-stream monitoring in Sand Creek and adopt no less than five (5) instream receiving water monitoring locations, including one location upstream of any of Suncor's discharge points, to be sampled no less than monthly for constituents that could violate Aquatic Warm 1 beneficial uses. Additionally, the Division should also adopt general permit provisions requiring Suncor to meet in stream water quality standards in the stretches of Sand Creek and the South Platte River adjacent to and downstream of the facility. Finally, the Division should Include in the final permit Receiving Water Limitations consistent with this comment.</p>

		<p>A. The discharge shall not cause the following conditions to exist in receiving waters at any place:</p> <ol style="list-style-type: none"> 1. Floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses; 2. Alteration of suspended sediment in such a manner as to cause nuisance or adversely affect beneficial uses, or detrimental increase in the concentrations of toxic pollutants in sediments or aquatic life; 3. Suspended material in concentrations that cause nuisance or adversely affect beneficial uses; 4. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses; 5. Alteration of temperature beyond present natural background levels; 6. Changes in turbidity that cause nuisance or adversely affect beneficial uses, or increases from normal background light penetration or turbidity greater than 10 percent in areas where natural turbidity is greater than 50 nephelometric turbidity units; 7. Coloration that causes nuisance or adversely affects beneficial uses; 8. Visible, floating, suspended, or deposited oil or other products of petroleum origin; or 9. Toxic or other deleterious substances in concentrations or quantities that cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration. 	
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Permit	Part I.G.2. at 48-49, Part I.J. at 57-59	<p>The potential for PFAS contaminated groundwater to enter Sand Creek and the South Platte River through illegal discharges via seeps and springs is a serious problem for the Suncor facility. The Division noted in the Fact Sheet that multiple releases of contaminated groundwater have entered surface waters through the various seeps and springs in and around the facility. See, e.g., Fact Sheet at 27-28, 33-34. Simply requiring Suncor to monitor seeps and springs along the facility's border with Sand Creek is insufficient to fully evaluate and quantify Suncor's PFAS contributions to surface waters. See Draft Permit at 57-59. The Division should require Suncor to conduct a surface water-groundwater interaction study covering the entire facility to accurately evaluate the concentrations of PFAS seeping into Sand Creek and the South Platte from Suncor's contaminated groundwater plume.</p> <p>Suncor's groundwater monitoring data for PFAS concentrations in its contaminated groundwater plume note multiple monitoring well locations outside of the facility's groundwater barrier wall with high levels of PFAS. For example, Suncor's groundwater data shows that monitoring well RMW-41RR, immediately upstream of the Burlington Ditch siphon, showed a PFOS + PFOA concentration of 2,146 nanograms per liter (ng/L) when sampled on June 9, 2020. Suncor Energy, Inc., Table 1 - Groundwater Sampling PFAS Results Summary - June and August 2020 [hereinafter "Groundwater PFAS Results - June and August 2020"] (attached as Exhibit 63). In the same vicinity as RMW-41RR, monitoring well WPBML-02A indicated a PFOS + PFOA concentration of 603 ng/L when sampled on August 22, 2019. TRC, 2019 Annual RCRA Corrective Action Program Progress Report: Suncor Energy (U.S.A.), Inc. Commerce City Refinery at tbl.2-5, fig.2-11 (April 2020) [hereinafter "TRC 2019 Annual RCRA Report"] (attached as Exhibit 64). Groundwater elevation contours clearly indicate groundwater flows from the vicinity of monitoring well WPBML-02A toward Sand Creek. TRC 2019 Annual RCRA Report at fig.2-2.</p> <p>Similarly, other monitoring wells outside of Suncor's barrier wall have recorded high levels of PFAS in the facility's contaminated groundwater plume:</p>	<p>The Division should require Suncor to conduct a year-long facility-wide surface water-groundwater interaction study to evaluate PFAS concentrations seeping from the underlying aquifer into Sand Creek and the South Platte River.</p> <p>As part of the study, the Division should require Suncor to perform seep sampling for PFAS using the bailer method. It should also require Suncor to estimate the PFAS mass loading to surface water via seeps and springs along the Sand Creek or the South Platte River bank and from the aquifer underlying these streams. The study should further take into account seasonal variations in groundwater elevations and stream stage which may result in Sand Creek or the South Platte River varying between a gaining and losing stream. Stream and underlying aquifer measurement and sampling locations should be chosen such that potential PFAS loading from groundwater is measured and mass flux into</p>
Fact Sheet	Part VI.A. at 26, Part VI.C.2. at 34-35		

		<ul style="list-style-type: none"> • BCMW-04N indicating 181 ng/L PFOS + PFOA on June 9, 2020 • BCMW-03N indicating 1,964 ng/L PFOS + PFOA on August 22, 2019 • BCMW-02N indicating 80 ng/L PFOS + PFOA on June 9, 2020 <p>See Suncor Energy, Inc., Table 1 - Groundwater Sampling PFAS Results Summary - Delineation: June, August, October, November 2020 [hereinafter "Groundwater PFAS Results - June, August, October, November 2020"] (attached as Exhibit 65); Suncor Energy, Inc., Wells With PFOS+PFOA Samples 2019-2020 [hereinafter "Suncor PFAS Well Map 2019-2020"] (attached as Exhibit 66); TRC 2019 Annual RCRA Report at tbl.2-5.</p> <p>Monitoring data also shows that groundwater containing elevated levels of PFAS have also migrated under the Burlington Ditch onto property belonging to the Metro Wastewater Reclamation District. Monitoring wells and their associated PFOS + PFOA detections on Metro property near Sand Creek and the South Platte River include:</p> <ul style="list-style-type: none"> • MPL-082, 281 ng/L on October, 27, 2020 • IMP-051, 312 ng/L on October 23, 2020 • MPL-006C, 159 ng/L on December 18, 2019 <p>See Groundwater PFAS Results - June, August, October, November 2020; Suncor PFAS Well Map 2019-2020.</p> <p>These detections indicate that PFAS contamination is widespread along the outside of the barrier wall. Moreover, there is evidence that Suncor's barrier wall fails to contain its contaminated groundwater plume, and so, does not provide a hydraulic barrier between contaminated groundwater inside the barrier wall and Sand Creek and the South Platte River. Fact Sheet at 33-34. As a result, there is no hydraulic barrier between the aquifer containing this mass of PFAS and Sand Creek. Suncor's contaminated groundwater will migrate to Sand Creek and discharge to the surface water through seeps and springs unimpeded, contributing to PFAS</p>	<p>Sand Creek or the South Platte River is quantified.</p> <p>The Division should further require Suncor to prioritize investigations around groundwater monitoring wells with data indicating that PFAS in the contaminated groundwater plume is migrating toward Sand Creek and the South Platte River unimpeded, including wells RMW-41RR, BCMW-03N, RMW-37, and RMW-38. For investigation of interactions via seeps and springs around well RMW-41RR, the Division should also require Suncor to use the additional 13 existing monitoring wells in the immediate vicinity of RMW-41RR to assess the extent, and characterize the mass, of PFAS in the alluvial aquifer underlying this area. In the event data gaps in this area are present, the Division should require Suncor to install new monitoring wells or piezometers.</p> <p>Finally, the Division should replace the description of the observations to be included in</p>
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		<p>loading in surface waters. These discharges would be illegal, unpermitted point source discharges, as the Division explained in the Fact Sheet.</p> <p>Similarly, contaminated groundwater in the Plant 3 area, on the southern end of the facility, may also be discharging into Sand Creek through seeps and springs. Yet, a large extent of the southern Plant 3 area closest to Sand Creek does not have groundwater monitoring wells and has no sampling data to characterize PFAS contamination in groundwater. This is particularly apparent along an approximately 1,750-foot extent bordering Sand Creek, between monitoring wells RMW-37 and RMW-38 which has no groundwater monitoring wells. See Suncor PFAS Well Map 2019-2020. Since PFAS is a persistent groundwater contaminant, even limited historic usage could result in current sources of significant PFAS mass in groundwater migrating into Sand Creek. The possibility of highly localized PFAS masses (or “slugs”) in groundwater is exemplified by PFOS + PFOA detections of 2,063 ng/L and 3,065 ng/L at monitoring wells CRMW-09R and RMW101, respectively, which are surrounded by other monitoring wells with much lower PFAS concentrations. Suncor Energy, Inc., Table 1 - PFAS Groundwater Sampling Results - Oct. 2018, Apr./May 2019, and Oct. 2020 (attached as Exhibit 67); TRC, Quarterly RCRA Corrective Action Program (RCAP) Progress Report Fourth Quarter 2020: Suncor Energy (U.S.A.), Inc., Commerce City Colorado Refinery at fig.2-8 (Feb. 25, 2021) (attached as Exhibit 68). Furthermore, this area lacks sufficient monitoring well coverage for water table mapping and determining groundwater flow directions. Groundwater contours indicating groundwater flow parallel to, or away from, Sand Creek are not supported.</p> <p>To ensure that all seeps and springs discharging contaminated groundwater into Sand Creek are identified and evaluated, the Division should require Suncor to conduct a year-long, facility-wide surface water-groundwater interaction study. As part of the study, locations with high groundwater PFAS contamination that are in hydraulic communication with Sand Creek through seeps and springs should be characterized and the communication to adjacent surface water bodies quantified. The Division should require all sampling conducted as part of the study to be completed using the</p>	<p>facility inspection reports for seeps and springs. Rather than stating the inspection reports should include “observations for the presence of groundwater seeps or other unpermitted discharges along the portions of the Suncor site bordering Sand Creek,” see Draft Permit at 58, it should state “observations for the presence of groundwater seeps or other unpermitted discharges along the portions of the Suncor site bordering Sand Creek, or through the bed of Sand Creek.”</p>
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		bailer method to ensure that samples are representative of the bulk PFAS concentrations in Suncor's contaminated groundwater.	
Permit Fact Sheet	Part I.A. at 4, Part I.E. at 17-33, Part I.I. at 57 Part V.D. at 23, Part VI.A. at 26, Part VIII.B.2. at 73, Part IX.A. -G. at 103-07	<p>The Conservation and Justice Groups appreciate the addition of three new outfalls to the draft permit—outfalls 023A, 004A, and 026A—in response to the EPA inspection and based on the presence of process water comingling with stormwater. Similarly, our Groups appreciate inclusion of outfalls 024A, 025A, 027A, and 028A in the draft permit as these outfalls discharge untreated petroleum contaminated stormwater. <i>E.g.</i>, Fact Sheet at 73. Adding these outfalls to Suncor's final permit reflects correct application of the Clean Water Act and Water Quality Control Act as compared to prior permit renewals. These new requirements are critical to protecting the water quality in Sand Creek. The Division should, thus, retain these outfalls in the final permit.</p> <p>However, our Groups remain concerned that no treatment is provided for discharges of process water from outfalls 023A, 004A, and 026A, or for petroleum-contaminated stormwater from outfalls 024A, 025A, 027A, and 028A prior to discharge to Sand Creek. <i>Id.</i> at 23. While the draft Permit requires comprehensive monitoring of the discharge, and so gives the Division new information about the quality of water being discharged, it provides no immediate water quality protections for Sand Creek. However, given Suncor's long history of non-compliance, its history of discharging untreated contaminated stormwater and groundwater, and the complexity of the site, the Division should impose a compliance schedule that requires Suncor to begin design-build of a treatment system that will allow consolidation of wastewater treatment and discharge at Outfall 020. <i>E.g.</i> Draft Permit at 55.</p> <p>It is clear that consolidation of wastewater treatment is the only way in which Suncor can effectively and properly treat contaminated stormwater and process water currently being discharged through outfalls 023A, 004A, 026A, 024A, 025A, 027A, and 028A. NPDES permits in other states have required similar, prescriptive compliance schedules that require</p>	<p>The Division should:</p> <p>(A) maintain individual permit coverage for 023A, 004A, 026A, 024A, 025A, 027A, and 028A;</p> <p>(B) maintain the SWMP development requirement; and</p> <p>(C) modify the compliance schedule to explicitly require consolidation of waste treatment from outfalls 023A, 004A, 026A, 024A, 025A, 027A, and 028A to the treatment plant and outfall 020.</p>

		<p>consolidation of treatment at complex industrial facilities. <i>See, e.g.,</i> Cal. Reg'l Water Quality Control Bd., S.F. Bay Region, Cease and Desist Order No. R2-2014-0011, Lehigh Southwest Cement Company and Hanson Permanente Cement, Inc., Permanente Plant at 7 (Mar. 20, 2014) (attached as Exhibit 69).</p> <p>The Conservation and Justice Groups acknowledge the Draft Permit mandate that Suncor develop and implement a comprehensive stormwater management plan (SWMP) at the facility. Draft Permit at 60-64. It is quite shocking that a facility of this size and complexity does not already have a SWMP in place, especially considering its history of non-compliance, location in a flood plain, and the fact that it has not been designed to accommodate a 20-year 24-hour storm event.</p> <p>Finally, in addition to supporting the need to consolidate wastewater treatment, the serious threats posed by Suncor's stormwater discharges and the current lack of a comprehensive SWMP confirms that the Division should adopt the other stormwater-related structural and permit provisions discussed above. <i>See supra</i> 50-51.</p>	
Permit	Part I.N.4. at 66	<p>Flow measurement at Outfall 020A and other designated discharge points are important to quantify PFAS and other contaminant loading to surface water bodies. The Draft Permit, however, only requires that Suncor's "flow-measuring device must indicate values within ten (10) percent of the actual flow being measured." Draft Permit at 66. The Colorado Division of Water Resources Well Measurement Program Standard specifies certified flow meters be capable of measuring flows to within +/- 5 percent. <i>See</i> Colo. Dep't Nat. Res., Water Res. Div., Well Measurement Program Standard (Oct. 1, 2019) (attached as Exhibit 70). As a result, the Division should require that Suncor's flow measuring device indicate values within +/- 5 percent of the actual flow being measured.</p>	<p>The Division should require that Suncor's flow measuring device indicate values within +/- 5 percent of the actual flow being measured. Additionally, the Division should require that any flow meters that Suncor installs on discharge locations be capable of providing an instantaneous flow value, as well as totalizing flow.</p>

