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December 18, 2019

Via Certified Mail - Return Receipt Requested

Managing Agent
Ardagh Glass, Inc.
5801 E Marginal Way S
Seattle, WA 98134

Managing Agent
Ardagh Glass, Inc.
PO Box 50487
Indianapolis, IN 46250

Re: **NOTICE OF INTENT TO SUE UNDER THE CLEAN WATER ACT AND REQUEST FOR COPY OF STORMWATER POLLUTION PREVENTION PLAN**

Dear Managing Agent:

We represent Puget Soundkeeper Alliance ("Soundkeeper"), 130 Nickerson St. #107, Seattle, WA 98109, (206) 297-7002 and Waste Action Project, P.O. Box 9281, Covington, WA 98042, (206) 849-5927. Any response or correspondence related to this matter should be directed to us at the letterhead address. This letter is to provide you with sixty days' notice of Soundkeeper's and Waste Action Project's intent to file a citizen suit against Ardagh Glass, Inc. ("Ardagh"), a/k/a Saint-Gobain Containers, Inc., under section 505 of the Clean Water Act ("CWA"), 33 U.S.C. § 1365, for the violations described below. This letter is also a request for a copy of the complete and current stormwater pollution prevention plan ("SWPPP") required by Ardagh's National Pollution Discharge Elimination System ("NPDES") permit.

Ardagh was granted coverage under the Industrial Stormwater General Permit ("ISGP") issued by the Washington Department of Ecology ("Ecology") effective January 1, 2010, modified and effective July 1, 2012, and set to expire on January 1, 2015, under NPDES No. WAR001134 (the "2010 Permit"). Ecology granted Ardagh coverage under the current iteration of the ISGP, issued by Ecology, effective January 1, 2015, and set to expire on December 31, 2019 (the "2015 Permit") and maintains the same permit number, WAR001134.

Ardagh has violated and continues to violate the CWA (see Sections 301 and 402 of the CWA, 33 U.S.C. §§ 1311 and 1342) and the terms and conditions of the 2010 Permit and the 2015 Permit (collectively, the "Permits") with respect to operations of, and discharges of

stormwater and pollutants from, its facility located at or about 5801 E Marginal Way S, Seattle, WA 98134 (the "facility") as described herein, to the Duwamish River. The facility subject to this notice includes any contiguous or adjacent properties owned or operated by Ardagh.

I. COMPLIANCE WITH STANDARDS.

A. Violations of Water Quality Standards.

Condition S10.A of the Permits prohibits discharges that cause or contribute to violations of water quality standards. Water quality standards are the foundation of the CWA and Washington's efforts to protect clean water. In particular, water quality standards represent the U.S. Environmental Protection Agency ("EPA") and Ecology's determination, based on scientific studies, of the thresholds at which pollution starts to cause significant adverse effects on fish or other beneficial uses. For each water body in Washington, Ecology designates the "beneficial uses" that must be protected through the adoption of water quality standards.

A discharger must comply with both narrative and numeric criteria water quality standards. WAC 173-201A-010; WAC 173-201A-510 ("No waste discharge permit can be issued that causes or contributes to a violation of water quality criteria, except as provided for in this chapter."). Narrative water quality standards provide legal mandates that supplement the numeric criteria. Furthermore, the narrative water quality standard applies with equal force even if Ecology has established a numeric water quality standard. Specifically, Condition S10.A of the Permits require that Ardagh's discharges not cause or contribute to an excursion of Washington State water quality standards.

Ardagh discharges to the Duwamish River which does not meet water quality standards for sediment quality and is included on the state's "303(d) list" of impaired water bodies. Ardagh discharges stormwater that contains elevated levels of turbidity, copper, zinc, pH, and oil as indicated in the tables of benchmark below. These discharges cause and/or contribute to violations of water quality standards for turbidity, copper, zinc, pH, and oil, in the Duwamish River and have occurred each and every day during the last five years on which there was 0.1 inch or more of precipitation, and continue to occur. *See* Fresh water designated uses and criteria, WAC 173-201A-200 (1)(a), (b), (e), (g), (2)(a), (4); Toxic Substances, WAC 173-201A-240 (including criteria for copper, zinc); Natural conditions and other water quality criteria and applications, WAC 173-201A-260 (including toxics and aesthetics criteria); Use designations – Fresh waters, WAC 173-201A-600; Use designations for fresh waters by water resource inventory area, WAC 173-201A-602 (showing the Duwamish River as part of water resource inventory area 9 and listing use designations). Precipitation data from that time period is appended to this notice of intent to sue and identifies these days.

Table 1: Sample Point 001 Benchmark Exceedances				
Quarter in which sample collected	Turbidity (Benchmark 25 NTU)	Copper (Benchmark 14 µg/L)	Zinc (Benchmark 117 µg/L)	Oil sheen (Yes/No)
1st Quarter 2014	31*	29*	250*	
2nd Quarter 2014		28*	230*	
3rd Quarter 2014		100*	220*	
4th Quarter 2014		28*	150*	
1st Quarter 2015		22	170	
3rd Quarter 2015		79[1]	160*	
4th Quarter 2015		17	180	
1st Quarter 2016		19		
3rd Quarter 2016		45*		
4th Quarter 2016	31			
4th Quarter 2017	33	38		
1st Quarter 2018	64.5	35.5	135	HINo (code "HI" means greater than)
2nd Quarter 2018	28	18		
4th Quarter 2018	35	15		
1st Quarter 2019	84.3	35.3		
2nd Quarter 2019	33	31	130	
3rd Quarter 2019	30.725	29.5		

*value is from Annual Report

Table 2: Sample Point 002 Benchmark Exceedances			
Quarter in which sample collected	Turbidity (Benchmark 25 NTU)	Copper (Benchmark 14 µg/L)	Zinc (Benchmark 117 µg/L)
1st Quarter 2014	34*	27*	150*
2nd Quarter 2014	43	42	210
3rd Quarter 2014		61*	160*
1st Quarter 2015	50[2]	51	250
3rd Quarter 2015		26[3]	130*
4th Quarter 2015	31[4]	20	150
3rd Quarter 2016		22	
4th Quarter 2016		15	
1st Quarter 2017		15	
2nd Quarter 2017		15*	

[1] Benchmark exceedance in Annual Report is reported as 880 µg/L.
[2] Benchmark exceedance in Annual Report is reported as 59 NTU.
[3] Benchmark exceedance in Annual Report is reported as 28 µg/L.
[4] Benchmark exceedance in Annual Report is reported as 31 NTU.

4th Quarter 2017		19	
1st Quarter 2018	43	36	135.5
2nd Quarter 2018	40	43	180
3rd Quarter 2018		19	
4th Quarter 2018	57.5	32.5	158.5
1st Quarter 2019		22.3	
2nd Quarter 2019	52	31	130.5
3rd Quarter 2019		15.8	

*value is from Annual Report

Table 3: Sample Point 003 Benchmark Exceedances

Quarter in which sample collected	Turbidity (Benchmark 25 NTU)	Copper (Benchmark 14 µg/L)	Zinc (Benchmark 117 µg/L)	Oil sheen (Yes/No)
1st Quarter 2014	100*	18*	140*	
2nd Quarter 2014	32*	21*		
3rd Quarter 2014	290*	820*	690*	
4th Quarter 2014	120*	20*	290*	
1st Quarter 2015	310[5]	60	310	Yes
3rd Quarter 2015	55[6]	27[7]	190[8]	
4th Quarter 2015	70[9]	20	170	
1st Quarter 2016	150	24	150[10]	
3rd Quarter 2016	98	38	230	
4th Quarter 2016	67			
1st Quarter 2017	170	41	250	
2nd Quarter 2017	550	83		
4th Quarter 2017	71	42	150	
1st Quarter 2018	126	126	725	
2nd Quarter 2018	320	96	470	
4th Quarter 2018	515	52.5	420	
1st Quarter 2019	188.7	38	219.3	
2nd Quarter 2019	230	57	280	

*value is from Annual Report

[5] Benchmark exceedance in Annual Report is reported as 250 NTU.
[6] Benchmark exceedance in Annual Report is reported as 39 NTU.
[7] Benchmark exceedance in Annual Report is reported as 26 µg/L.
[8] Benchmark exceedance in Annual Report is reported as 160 µg/L.
[9] Benchmark exceedance in Annual Report is reported as 68 NTU.
[10] Benchmark exceedance in Annual Report is reported as 117 µg/L.

Table 4: Sample Point 004 Benchmark Exceedances				
Quarter in which sample collected	Turbidity (Benchmark 25 NTU)	Copper (Benchmark 14 µg/L)	Zinc (Benchmark 117 µg/L)	pH (5.0-9.0)
2nd Quarter 2014		89*		
3rd Quarter 2015		36[11]		
4th Quarter 2015	210	15		9.39
3rd Quarter 2016	140	33	230	
4th Quarter 2016	70			
1st Quarter 2017	64	17	150	
2nd Quarter 2017	170	41	170	
4th Quarter 2017	91	25	120	
1st Quarter 2018	305	33	265	
2nd Quarter 2018	300	44	320	
4th Quarter 2018	185		120	
1st Quarter 2019	108.75			
2nd Quarter 2019	120	25	160	
3rd Quarter 2019	107.4	24.6	179.6	

*value is from Annual Report

Table 5: Sample Point 006 Benchmark Exceedances				
Quarter in which sample collected	Turbidity (Benchmark 25 NTU)	Copper (Benchmark 14 µg/L)	Zinc (Benchmark 117 µg/L)	Oil sheen (Yes/No)
2nd Quarter 2014	250*	70*	420*	
3rd Quarter 2014	160*	140*	1900*	
4th Quarter 2014	79*	19*	160*	
1st Quarter 2015	510	130	1000	Yes
2nd Quarter 2015	510*	130*	1000*	
3rd Quarter 2015	80[12]	80	470[13]	Yes
4th Quarter 2015	210	64	530	

*value is from Annual Report

[11] Benchmark exceedance in Annual Report is reported as 40 µg/L.
[12] Benchmark exceedance in 2015 Annual Report for turbidity is reported as 30 NTU.
[13] Benchmark exceedance in 2015 Annual Report for zinc is reported as 490 µg/L.

B. Compliance with Standards.

Condition S10.C of the Permits requires Ardagh to apply all known and reasonable methods of prevention, control and treatment ("AKART") to all discharges, including preparation and implementation of an adequate SWPPP and best management practices ("BMPs"). The July 9, 2019 Ecology Inspection Report noted that sediment and debris is still present around the loading bay doors just as it was during the past inspections. Ardagh has violated and continues to violate these conditions by failing to apply AKART to its discharges or to implement an adequate SWPPP and BMPs as evidenced by the elevated levels of pollutants in its discharge indicated in the table above and as described below in this notice of intent to sue.

Condition S1.A of the Permits requires that all discharges and activities authorized be consistent with the terms and conditions of the permits. Ardagh has violated these conditions by discharging and acting inconsistent with the conditions of the Permits as described in this notice of intent to sue.

II. STORMWATER POLLUTION PREVENTION PLAN VIOLATIONS.

On information and belief, Ardagh is in violation of the Permits' SWPPP provisions as follows:

1. Condition S3.A.1 of the Permits requires Ardagh to develop and implement a SWPPP as specified. Condition S3.A.2 of the Permits require the SWPPP to specify BMPs necessary to provide AKART and ensure that discharges do not cause or contribute to violations of water quality standards. On information and belief, Ardagh has violated these requirements of the Permits each and every day during the last five years and continues to violate them as it has failed to prepare and/or implement a SWPPP that includes AKART BMPs and BMPs necessary to comply with state water quality standards.

2. Condition S3.A of the Permits requires Ardagh to have and implement a SWPPP that is consistent with permit requirements, fully implemented as directed by permit conditions, and updated as necessary to maintain compliance with permit conditions. On information and belief, Ardagh has violated these requirements of the Permits each and every day during the last five years and continues to violate them because its SWPPP is not consistent with permit requirements, has not been fully implemented and has not been updated as necessary.

3. The SWPPP fails to satisfy the requirements of Condition S3 of the Permits because it does not adequately describe BMPs. Condition S3.B.4 of the Permits require that the SWPPP include a description of the BMPs that are necessary for the facility to eliminate or reduce the potential to contaminate stormwater. Condition S3.A.3 of the Permits require that the SWPPP include BMPs consistent with approved stormwater technical manuals or document how stormwater BMPs included in the SWPPP are demonstratively equivalent to the practices contained in the approved stormwater technical manuals, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs. *See*

Stormwater Management Manual for Western Washington, July 2019, https://fortress.wa.gov/ecy/ezshare/wq/Permits/Flare/2019SWMMWW/Content/Resources/DocsForDownload/2019SWMMWW.pdf. Ardagh's SWPPP does not comply with these requirements because it does not adequately describe BMPs and does not include BMPs consistent with approved stormwater technical manuals nor does it include BMPs that are demonstratively equivalent to such BMPs with documentation of BMP adequacy. Some of the BMPs that Ardagh is failing to implement include looking for chemical deposition around vents, pipes, and other surfaces; installing and maintaining appropriate source control measures such as air pollution control equipment (filters, scrubbers, and other treatment); checking that all the scrubber solution is appropriate for the chemistry of the fumes; installing vent covers and drip pans where there are none; preventing leaks in pipefittings and containment vessels with routine maintenance; considering instituting operation or process changes to reduce pollution; installing/providing appropriate devices for roof runoff before it is discharged off site; maintaining air filters and pollution control equipment on a regular basis to ensure that they are working properly; collecting the washwater and loose materials using a sump pump, wet vacuum, or similar device when cleaning accumulated emission from rooftops; and discharging the collected runoff to the sanitary sewer after approval by the local serer authority, or having a waste disposal company remove it.

4. Ardagh's SWPPP fails to satisfy the requirements of Condition S3.B.2 of the Permits because it fails to include a facility assessment as mandated. The SWPPP fails to include an adequate facility assessment because it does not describe the industrial activities conducted at the site, the general layout of the facility including buildings and storage of raw materials, the flow of goods and materials through the facility, regular business hours and seasonal variations in business hours or in industrial activities as required.

5. Ardagh's SWPPP fails to satisfy the requirements of Condition S3.B.1 of the Permits because it does not include a site map that identifies significant features, the stormwater drainage and discharge structures, the stormwater drainage areas for each stormwater discharge point off-site, a unique identifying number for each discharge point, each sampling location with a unique identifying number, paved areas and buildings, areas of pollutant contact associated with specific industrial activities, conditionally approved non-stormwater discharges, surface water locations, areas of existing and potential soil erosion, vehicle maintenance areas, and lands and waters adjacent to the site that may be helpful in identifying discharge points or drainage routes.

6. Ardagh's SWPPP fails to comply with Condition S3.B.2.b of the Permits because it does not include an inventory of industrial activities that identifies all areas associated with industrial activities that have been or may potentially be sources of pollutants as required. The SWPPP does not identify all areas associated with loading and unloading of dry bulk materials or liquids, outdoor storage of materials or products, outdoor manufacturing and processing, onsite dust or particulate generating processes, on-site waste treatment, storage, or disposal, vehicle and equipment fueling, maintenance, and/or cleaning, roofs or other surfaces exposed to air emissions such as Persistent Bioaccumulative Toxins (PBTs), chromium, lease, nitrous oxide, carbon monoxide, and soot from a manufacturing building or a process area,

and roofs or other surfaces composed of materials that may be mobilized by stormwater as required by these conditions.

7. Ardagh's SWPPP does not comply with Condition S3.B.2.c of the Permits because it does not include an adequate inventory of materials. The SWPPP does not include an inventory of materials that lists the types of materials handled at the site that potentially may be exposed to precipitation or runoff and that could result in stormwater pollution, a short narrative for material describing the potential for the pollutants to be present in stormwater discharge that is updated when data becomes available to verify the presence or absence of the pollutants, a narrative description of any potential sources of pollutants from past activities, materials and spills that were previously handled, treated, stored, or disposed of in a manner to allow ongoing exposure to stormwater as required. The SWPPP does not include the method and location of on-site storage or disposal of such materials and a list of significant spills and significant leaks of toxic or hazardous pollutants as these permit conditions require.

8. Ardagh's SWPPP does not comply with Condition S3.B.3 of the Permits because it does not identify specific individuals by name or title whose responsibilities include SWPPP development, implementation, maintenance and modification.

9. Condition S3.B.4 of the 2010 Permit required that permittees include in their SWPPPs and implement certain mandatory BMPs no later than July 1, 2010 unless site conditions render the BMP unnecessary, infeasible, or an alternative and equally effective BMP is provided. Condition S3.B.4 of the 2015 Permit also requires that permittees include in their SWPPPs and implement mandatory BMPs subject to the same conditions. Ardagh is in violation of this requirement because it has failed to include in its SWPPP and implement the mandatory BMPs of the Permits.

10. Ardagh's SWPPP does not comply with Condition S3.B.4.b.i of the Permits because it does not include required operational source control BMPs. On November 20, 2018 during the Ecology inspection, the operator of one of the concrete trucks spilled washwater while washing the truck out in drainage basin 3, which is adjacent to the Duwamish River. There was staining on the pavement from other concrete trucks being washed out. The staining was found in both drainage basin 2 and 3. The July 9, 2019 Ecology Inspection Report noted that sediment and debris is still present around the loading bay doors just as it was during the past inspections. Ardagh fails to include operation source control BMPs in the following categories: good housekeeping (including definition of ongoing maintenance and cleanup of areas that may contribute pollutants to stormwater discharges, and a schedule/frequency for each housekeeping task); preventive maintenance (including BMPs to inspect and maintain stormwater drainage, source controls, treatment systems, and plant equipment and systems, and the schedule/frequency for each task); spill prevention and emergency cleanup plan (including BMPs to prevent spills that can contaminate stormwater, for material handling procedures, storage requirements, cleanup equipment and procedures, and spill logs); employee training (including an overview of what is in the SWPPP, how employees make a difference in complying with the SWPPP, spill response procedures, good housekeeping, maintenance requirements, and material management practices, how training will be conducted, the frequency/schedule of training,

and a log of the dates on which specific employees received training); inspections and recordkeeping (including documentation of procedures to ensure compliance with permit requirements for inspections and recordkeeping, identification of personnel who conduct inspections, provision of a tracking or follow-up procedure to ensure that a report is prepared and appropriate action taken in response to visual monitoring, definition of how Ardagh will comply with signature and record retention requirements, and certification of compliance with the SWPPP and Permit).

11. Ardagh's SWPPP does not comply with Condition S3.B.4.b.i.7 of the Permits because it does not include measures to identify and eliminate the discharge of process wastewater, domestic wastewater, noncontact cooling water, and other illicit discharges to stormwater sewers, or to surface waters and ground waters of the state.

12. Ardagh's SWPPP does not comply with Condition S3.B.4.b.ii of the Permits because it does not include required structural source control BMPs to minimize the exposure of manufacturing, processing, and material storage areas to rain, snow, snowmelt, and runoff. Ardagh's SWPPP does not comply with Condition S3.B.4.b.iii of the Permits because it does not include treatment BMPs as required.

13. Ardagh's SWPPP fails to comply with Condition S3.B.4.b.v of the Permits because it does not include BMPs to prevent the erosion of soils or other earthen materials and prevent off-site sedimentation and violations of water quality standards.

14. Ardagh's SWPPP fails to satisfy the requirements of Condition S3.B.5 of the Permits because it fails to include a stormwater sampling plan as required. The SWPPP does not include a sampling plan that: identifies points of discharge to surface waters, storm sewers, or discrete ground water infiltration locations; documents why each discharge point is not sampled; identifies each sampling point by its unique identifying number; identifies staff responsible for conducting stormwater sampling; specifies procedures for sampling collection and handling; specifies procedures for sending samples to the a laboratory; identifies parameters for analysis, holding times and preservatives, laboratory quantization levels, and analytical methods, and that specifies the procedure for submitting the results to Ecology.

III. MONITORING AND REPORTING VIOLATIONS.

A. Failure to Collect Quarterly Samples.

Condition S4.B of the Permits requires Ardagh to collect a sample of its stormwater discharge once during every calendar quarter. Conditions S3.B.5.b and S4.B.2.c of the Permits require Ardagh to collect stormwater samples at each distinct point of discharge offsite except for substantially identical outfalls, in which case only one of the substantially identical outfalls must be sampled. These conditions set forth sample collection criteria, but require the collection of a sample even if the criteria cannot be met. On information and belief, the facility has at least five distinct points of discharge off-site: Outfall 001, Outfall 002, Outfall 003, Outfall 004, Outfall 006. On information and belief, there are additional unnamed distinct discharge points.

Ardagh violated these requirements by failing to collect stormwater samples for Sample Point 001 during the 2nd quarter of 2015, 2nd quarter of 2016, 3rd quarter of 2017, and 3rd quarter of 2018; Sample Point 002 during the 4th quarter of 2014, 2nd quarter of 2015, 2nd quarter of 2016; Sample Point 003 during the 2nd quarter of 2015, 2nd quarter of 2016, 3rd quarter of 2017, and 3rd quarter of 2018; and Sample Point 004 during the 1st quarter of 2014, 3rd quarter of 2014, 4th quarter of 2014, 2nd quarter of 2015, 2nd quarter of 2016, 3rd quarter of 2017, and 3rd quarter of 2018.

Ardagh has also violated and continues to violate these conditions because it does not sample each distinct point of discharge off-site including sheet flow entering the Duwamish River from the western perimeter of the facility. The March 12, 2019 Ecology Inspection Report found that "[p]ools of turbid water were observed on the west side of the site, directly adjacent to the Duwamish River. If sufficient volumes of water accumulate in this area it appears likely that it could result in direct discharge to the river via sheet flow." The July 9, 2019 Ecology Inspection Report states that Ardagh installed a berm to reduce sheet flow into the river. These violations have occurred and continue to occur each and every quarter during the last five years that Ardagh was and is required to sample its stormwater discharges, including the quarters in which it collected stormwater discharge samples from some, but not each, point of discharge. These violations will continue until Ardagh commences monitoring all distinct points of discharge.

B. Failure to Analyze Quarterly Samples.

Condition S5.A.1 of the Permits requires Ardagh to analyze stormwater samples collected quarterly for turbidity, pH, total copper, total zinc, oil sheen, and total suspended solids.

Ardagh violated these conditions by failing to analyze stormwater samples as described in Table 6 below:

Table 6: Parameters Not Analyzed

Monitoring Period	Parameters Not Analyzed
1st Quarter 2014	Turb, Cu, Zn, pH
3rd Quarter 2014	Turb, Cu, Zn, pH
4th Quarter 2014	Turb, Cu, Zn, pH
2nd Quarter 2015	Turb, Cu, Zn, pH, TSS
2nd Quarter 2016	Turb, Cu, Zn, pH, TSS
3rd Quarter 2017	Turb, Cu, Zn, pH, TSS
3rd Quarter 2018	Turb, Cu, Zn, pH, TSS

C. Failure to Timely Submit Discharge Monitoring Reports.

Condition S9.A of the Permits requires Ardagh to use DMR forms provided or approved by Ecology to summarize, report and submit monitoring data to Ecology. For each monitoring period (calendar quarter) a DMR must be completed and submitted to Ecology not later than 45 days after the end of the monitoring period. Ardagh has violated these

conditions by failing to submit a DMR within the time prescribed for the 1st quarter of 2014, 3rd quarter of 2014, and 4th quarter of 2014.

D. Failure to Comply with Visual Monitoring Requirements.

Condition S7.A of the Permits requires that monthly visual inspection be conducted at the facility by qualified personnel. Each inspection is to include observations made at stormwater sampling locations and areas where stormwater associated with industrial activity is discharged, observations for the presence of floating materials, visible oil sheen, discoloration, turbidity, odor, etc. in the stormwater discharges, observations for the presence of illicit discharges, a verification that the descriptions of potential pollutant sources required by the permit are accurate, a verification that the site map in the SWPPP reflects current conditions, and an assessment of all BMPs that have been implemented (noting the effectiveness of the BMPs inspected, the locations of BMPs that need maintenance, the reason maintenance is needed and a schedule for maintenance, and locations where additional or different BMPs are needed). Ardagh has violated and continues to violate these requirements because, during the last five years, it has failed to conduct each of the requisite visual monitoring and inspections, including failing to monitor for oil sheen for the 1st Quarter 2014, 3rd Quarter 2014, 4th Quarter 2014, 2nd Quarter 2015, 2nd Quarter 2016, 3rd Quarter 2017, and 3rd Quarter 2018.

Condition S7.C of the Permits requires that Ardagh record the results of each inspection in an inspection report or checklist that is maintained on-site and that documents the observations, verifications, and assessments required. The report/checklist must include the time and date of the inspection, the locations inspected, a statement that, in the judgment of the person conducting the inspection and the responsible corporate officer, the facility is either in compliance or out of compliance with the SWPPP and the Permits, a summary report and schedule of implementation of the remedial actions that Ardagh plans to take if the site inspection indicates that the facility is out of compliance, the name, title, signature and certification of the person conducting the facility inspection, and a certification and signature of the responsible corporate officer or a duly authorized representative. Ardagh is in violation of these requirements because, during the last five years, it has to prepare and maintain the requisite inspection reports or checklists, and failed to make the requisite certifications and summaries.

E. Failure to Report Samples on DMRs.

Ardagh violated and continues to violate Condition S4.B.3 of the permit by incorrectly reporting samples on the DMRs. On March 23, 2018, Ardagh reported that the visible oil and grease at Sample Point 001 was "HINo." The reporting code "HI" means "greater than." Ardagh should have reported either reported "yes" or "no." Ardagh failed to report samples in the DMRs that were reported in the annual report as show in Tables 1, 2, 3, 4, and 5, including the 1st quarter of 2014, 2nd quarter of 2014, 3rd quarter of 2014, 4th quarter of 2014, 1st quarter of 2015, 2nd quarter of 2015, 3rd quarter of 2015, 4th quarter of 2015, 1st quarter of 2016, 3rd quarter of 2016, 2nd quarter of 2017, and 3rd quarter of 2018.

IV. CORRECTIVE ACTION VIOLATIONS.

A. Violations of the Level One Requirements.

Condition S8.B of the Permits requires Ardagh take specified actions, called a "Level One Corrective Action," each time quarterly stormwater sample results exceed a benchmark value or are outside the benchmark range.

As described by Condition S8.B of the Permits, a Level One Corrective Action requires Ardagh: (1) review the SWPPP for the facility and ensure that it fully complies with Condition S3 of the Permits and contains the correct BMPs from the applicable Stormwater Management Manual; (2) make appropriate revisions to the SWPPP to include additional operational source control BMPs with the goal of achieving the applicable benchmark values in future discharges and sign and certify the revised SWPPP in accordance with Condition S3.A.6 of the Permits; and (3) summarize the Level One Corrective Action in the Annual Report required under Condition S9.B of the Permits. Condition S8.B.4 of the Permits require Ardagh implement the revised SWPPP as soon as possible, and no later than the DMR due date for the quarter the benchmark was exceeded.

Condition S5.A and Table 2 of the Permits establishes the following benchmarks: turbidity 25 NTU; pH 5 – 9 SU; total copper 14 µg/L; total zinc 117 µg/L, and oil sheen (no).

Ardagh has violated the requirements of the Permits described above by failing to conduct a Level One Corrective Action in accordance with permit conditions, including the required review, revision and certification of the SWPPP, the required implementation of additional BMPs, and the required summarization in the annual report each time since January 1, 2014, its quarterly stormwater sampling results were greater than a benchmark or outside the benchmark range, including the benchmark exceedances listed in Table 1, 2, 3, 4, and 5 above.

B. Violations of the Level Two Requirements.

Condition S8.C of the Permits requires Ardagh take specified actions, called a "Level Two Corrective Action," each time quarterly stormwater sample results exceed an applicable benchmark value or are outside the benchmark range for any two quarters during a calendar year.

As described by Condition S8.C of the Permits, a Level Two Corrective Action requires Ardagh: (1) review the SWPPP for the facility and ensure that it fully complies with Condition S3 of the Permits; (2) make appropriate revisions to the SWPPP to include additional structural source control BMPs with the goal of achieving the applicable benchmark value(s) in future discharges and sign and certify the revised SWPPP in accordance with Condition S3.A.6 of the Permits; and (3) summarize the Level Two Corrective Action (planned or take) in the Annual Report required under Condition S9.B of the Permits. Condition S8.C.4 of the Permits require Ardagh implement the revised SWPPP

according to condition S3 of the Permits and the applicable stormwater management manual as soon as possible, and no later than September 30th of the following year.

The Permits establish the benchmarks applicable to Ardagh described in section I.A of this notice of intent to sue letter and Condition S5.A of the Permits.

Ardagh has violated the requirements of the Permits described above by failing to conduct a Level Two Corrective Action for discharge from its facility in accordance with permit conditions, including the required review, revision and certification of the SWPPP; the required implementation of additional BMPs, including additional structural source control BMPs; and the required summarization in the annual report each time since January 1, 2014, quarterly stormwater sampling results from the facility were greater than a benchmark or outside the benchmark range for any two quarters during a calendar year. Ardagh has violated and continues to violate these requirements by failing to perform Level Two Corrective Actions in turbidity, copper, and zinc for calendar years 2014, 2015, 2016, 2017, 2018, and 2019, as indicated by the benchmark exceedances in Tables 1-5, *supra.*

C. Violations of the Level Three Requirements.

Condition S8.D of the Permits requires Ardagh take specified actions, called a "Level Three Corrective Action," each time quarterly stormwater sample results exceed an applicable benchmark value or are outside the benchmark range for any three quarters during a calendar year.

As described by Condition S8.D of the Permits, a Level Three Corrective Action requires Ardagh: (1) review the SWPPP for the facility and ensure that it fully complies with Condition S3 of the Permits; (2) make appropriate revisions to the SWPPP to include additional treatment BMPs with the goal of achieving the applicable benchmark value(s) in future discharges and additional operational and/or structural source control BMPs if necessary for proper function and maintenance of treatment BMPs, and sign and certify the revised SWPPP in accordance with Condition S3.A.6 of the Permits; and (3) summarize the Level Three Corrective Action (planned or take) in the Annual Report required under Condition S9.B of the Permits, including information on how monitoring, assessment, or evaluation information was (or will be) used to determine whether existing treatment BMPs will be modified/enhanced, or it new/additional treatment BMPs will be installed. Condition S8.D.2.b of the Permits require that a licensed professional engineer, geologist, hydrogeologist, of certified professional in storm water quality must design and stamp the portion of the SWPPP that addresses stormwater treatment structures or processes.

Condition S8.D.3 of the Permits requires that, before installing BMPs that require the site-specific design or sizing of structures, equipment, or processes to collect, convey, treat, reclaim, or dispose of industrial stormwater, Ardagh submit an engineering report, plans, and specifications, and an operations and maintenance manual to Ecology for review in accordance with chapter 173-204 of the Washington Administrative Code. The engineering report must be submitted no later than the May 15 prior to the Level Three Corrective Action

Deadline. The plans and specifications and the operations and maintenance manual must be submitted to Ecology at least 30 days before construction/installation.

Condition S8.D.5 of the Permits requires Ardagh fully implement the revised SWPPP according to condition S3 of the Permits and the applicable stormwater management manual as soon as possible, and no later than September 30th of the following year.

The Permits establish the benchmarks applicable to Ardagh described in section IV.A of this notice of intent to sue letter.

Ardagh has violated the requirements of the Permits described above by failing to conduct a Level Three Corrective Action in accordance with permit conditions, including: the required review, revision and certification of the SWPPP; the requirement to have a specified professional design and stamp the portion of the SWPPP pertaining to treatment; the required implementation of additional BMPs, including additional treatment BMPs; the required submission of an engineering report, plans, specifications, and an operations and maintenance plan; and the required summarization in the annual report each time since January 1, 2014 its quarterly stormwater sampling results were greater than a benchmark or outside the benchmark range for any three quarters during a calendar year. As indicated in Table 1, 2, 3, 4, and 5 above, these violations include, but are not limited to, Ardagh's failure to fulfill these obligations for 2014 exceedances of turbidity, copper, and zinc; 2015 for turbidity, copper, and zinc; 2016 for turbidity, copper, and zinc; 2017 for turbidity and copper; 2018 for turbidity, copper, and zinc, and 2019 for turbidity, copper, and zinc.

V. EFFLUENT LIMITATION VIOLATIONS.

Condition S6.C.1 of the 2015 Permit requires Permittees discharging to a "303(d)-listed" waterbody (Water Quality Category 5), either directly or indirectly through a stormwater drainage system must comply with the applicable sampling requirements and numeric effluent limits in Table 6 of the 2015 Permit. The "applicable sampling requirements and numeric effluent limits" means the sampling and effluent limits in Table 6 that correspond to the specific parameter(s) the receiving water is 303(d)-listed for at the time of permit coverage, or Total Suspended Solids (TSS) if the waterbody is 303(d)-listed for sediment quality at the time of permit coverage. Condition S6.C.1 of the 2010 Permit contained substantially identical requirements, but refers to Table 5 of that Permit.

Ardagh discharges via private stormwater system and sheet flow directly to the Duwamish River, which is 303(d)-listed for sediment quality. Ardagh's discharges are subject to a maximum daily effluent limitation of 30 mg/L for total suspended solids. Ardagh discharges stormwater that contains elevated levels of total suspended solids in excess of the corresponding numeric effluent limitation, as indicated in Table 7 below. Each and every one of these discharges is a separate violation of the Permits. On information and belief, these numeric effluent limitation violations also occurred each and every day over the past five years on which there is at least 0.1 inch of precipitation in a 24 hour period and are reasonably likely to recur. Precipitation data from that time period is appended to this notice of intent to sue and identifies these days.

Table 7: Effluent Limitation Violations	
Date of Sample Collected	Total Suspended Solids (Effluent Limitation 30 mg/L Maximum Daily)
March 23, 2015, Sample Point 002	59
March 23, 2015, Sample Point 003	250
March 23, 2015, Sample Point 006	560
August 14, 2015, Sample Point 006	91
September 17, 2015, Sample Point 006	130
August 14, 2015, Sample Point 003	39
September 17, 2015, Sample Point 003	84
November 13, 2015, Sample Point 002	32
October 7, 2015, Sample Point 003	68
October 7, 2015 Sample Point 006	84
January 4, 2016, Sample Point 003	75
September 2, 2016, Sample Point 004	83
October 13, 2016, Sample Point 001	54
October 13, 2016, Sample Point 003	90
October 13, 2016, Sample Point 004	100
February 15, 2017, Sample Point 003	360
February 15, 2017, Sample Point 004	150
May 16, 2017, Sample Point 003	430
May 16, 2017, Sample Point 004	140
October 17, 2017, Sample Point 003	86
October 17, 2017, Sample Point 004	72
March 9, 2018, Sample Point 001	110
March 23, 2018, Sample Point 001	34
March 9, 2018, Sample Point 002	60
March 9, 2018, Sample Point 003	1300
March 23, 2018, Sample Point 003	980
March 9, 2018, Sample Point 004	120
March 23, 2018, Sample Point 004	510
April 13, 2018, Sample Point 001	38
April 13, 2018, Sample Point 002	49
April 13, 2018, Sample Point 003	980
April 13, 2018, Sample Point 004	390
December 20, 2018, Sample Point 002	100
November 27, 18 2018, Sample Point 003	670
December 20, 2018, Sample Point 003	650
November 27, 2018, Sample Point 004	110
December 20, 2018, Sample Point 004	170
December 20, 2019, Sample Point 001	74
February 1, 2019, Sample Point 003	380
February 1, 2019, Sample Point 004	110

March 12, 2019, Sample Point 004	180
April 19, 2019, Sample Point 001	35
April 19, 2019, Sample Point 002	33
April 19, 2019, Sample Point 003	250
April 19, 2019, Sample Point 004	96
July 2, 2019, Sample Point 001	40
July 2, 2019, Sample Point 004	77
August 10, 2019, Sample Point 004	44
September 9, 2019, Sample Point 004	87
September 17, 2019, Sample Point 004	72
September 27, 2019, Sample Point 004	93

VI. UNLAWFUL DISCHARGES.

A. Illicit and Prohibited Discharges.

Condition S5.E of the Permits prohibits the discharge of process wastewater (including stormwater that comingles with process wastewater) and illicit discharges. Appendix 2 to the Permits defines "illicit discharges" as "any discharge that is not composed entirely of stormwater." Condition S5.F of the Permits requires Ardagh to manage stormwater to prevent the discharge of synthetic, natural or processed oil or oil containing products as identified by an oil sheen, and trash and floating debris, prohibiting those discharges. Ardagh's discharges of truck wash water and/or truck washout wastewater violate these Permit conditions. On information and belief, these prohibited discharges occurred each and every day over the past five years Ardagh has conducted industrial activity including March 23, 2015; August 14, 2015; and March 23, 2018 and are reasonably likely to continue to occur.

Condition S7.B.3.b of the Permits also requires Ardagh to eliminate illicit discharges within 30 days of discovery; and Condition S3.B.4.b.i.7 of the Permits require Ardagh's SWPPP to include measures to identify and eliminate illicit discharges to surface waters. Ardagh violated these requirements by failing to eliminate its illicit discharges altogether over the last five years.

Additionally, Condition S7.B.3.a of the Permits requires Ardagh to notify the Department of Ecology within seven days of any discovery of an illicit discharge. Ardagh violated this requirement by failing to notify Ecology about its illicit discharges within seven days of each occurrence over the past five years.

B. Unpermitted Discharges.

The Permits authorize only the discharges of stormwater and pollutants contained in stormwater. Ardagh does not possess and has never possessed an NPDES permit for its non-stormwater direct discharges of truck wash water and/or truck washout wastewater. On November 20, 2018 during the Ecology inspection, the operator of one of the concrete trucks spilled washwater while washing the truck out in drainage basin 3, which is adjacent to the

Duwamish River. There was staining on the pavement from other concrete trucks being washed out. The staining was found in both drainage basin 2 and 3. These point source discharges violate the Clean Water Act's § 301(a), 33 U.S.C. § 1311(a), prohibition on pollutant discharges. These violations occurred on each and every day in which truck wash water and/or truck washout wastewater commingled with stormwater, as well as each and every day over the past five years on which Ardagh spilled washwater onto the ground and are reasonably likely to continue to occur whenever truck wash water and/or truck washout wastewater commingled with stormwater going forward.

VII. VIOLATIONS OF THE ANNUAL REPORT REQUIREMENTS.

Condition S9.B of the Permits requires Ardagh to submit an accurate and complete annual report to Ecology no later than May 15 of each year. The annual report must include corrective action documentation as required in Condition S8.B – D of the Permits. If a corrective action is not yet completed at the time of submission of the annual report, Ardagh must describe the status of any outstanding corrective action. Specific information to be included in the annual report is identification of the conditions triggering the need for corrective action, description of the problem and identification of dates discovered, summary of any Level One, Two, or Three Corrective Actions completed during the previous calendar year, including the dates corrective actions completed, and description of the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, including identification of the date Ardagh expects to complete corrective actions.

Ardagh has violated this condition by failing to submit accurate and complete annual reports as required, including failing to report stormwater sample results triggering the need for corrective action by failing to report sample results at all or reporting incorrect sample results (indicated by values contradicting those reported on DMRs), for years including 2014, 2015, 2016, 2017, and 2018.

VIII. VIOLATIONS OF THE RECORDKEEPING REQUIREMENTS.

A. Failure to Record Information.

Condition S4.B.3 of the Permits requires Ardagh record and retain specified information for each stormwater sample taken, including the sample date and time, a notation describing if Ardagh collected the sample within the first 30 minutes of stormwater discharge event, an explanation of why Ardagh could not collect a sample within the first 30 minutes of a stormwater discharge event, the sample location, method of sampling and of preservation, and the individual performing the sampling. Upon information and belief, Ardagh is in violation of these conditions as it has not recorded each of these specified items for each sample taken during the last five years.

B. Failure to Retain Records.

Condition S9.C of the Permits requires Ardagh to retain for a minimum of five years a copy of the current Permit, a copy of Ardagh's coverage letter, records of all sampling

information, inspection reports including required documentation, any other documentation of compliance with permit requirements, all equipment calibration records, all BMP maintenance records, all original recordings for continuous sampling instrumentation, copies of all laboratory results, copies of all required reports, and records of all data used to complete the application for the Permit. Upon information and belief, Ardagh is in violation of these conditions because it has failed to retain records of such information, reports, and other documentation during the last five years.

IX. FAILURE TO REPORT PERMIT VIOLATIONS.

Condition S9.E of the Permits requires Ardagh to take certain actions in the event Ardagh is unable to comply with any of the terms and conditions of the Permits which may endanger human health or the environment, or exceed any numeric effluent limitation in the permit. In such circumstances, Ardagh must immediately take action to minimize potential pollution or otherwise stop the noncompliance and correct the problem, and Ardagh must immediately notify the appropriate Ecology regional office of the failure to comply. Ardagh must then submit a detailed written report to Ecology, including specified details, within 5 days of the time Ardagh became aware of the circumstances unless Ecology requests an earlier submission.

On information and belief, Ardagh routinely violates these requirements, including each and every time Ardagh exceeded the numeric effluent limitation, as specified in Table 7 above, each and every time Ardagh discharges illicit and/or non-stormwater discharges, as described in section VI to this notice of intent to sue, above, each and every time Ardagh failed to comply with the corrective action requirements described in section IV of this notice of intent to sue, and each and every time Ardagh discharged stormwater with concentrations of pollutants in excess of the Permit benchmarks, as described in Table 1, 2, 3, 4, and 5 above. All these violations may endanger human health or the environment.

X. REQUEST FOR SWPPP.

Pursuant to Condition S9.F of the 2015 Permit, Soundkeeper and Waste Action Project hereby requests that Ardagh provide a copy of, or access to, its SWPPP complete with all incorporated plans, monitoring reports, checklists, and training and inspection logs. The copy of the SWPPP and any other communications about this request should be directed to the undersigned at the letterhead address.

Should Ardagh fail to provide the requested complete copy of, or access to, its SWPPP as required by Condition S9.F of the 2015 Permit, it will be in violation of that condition, which violation shall also be subject to this notice of intent to sue and any ensuing lawsuit.

XI. CONCLUSION.

The above-described violations reflect those indicated by the information currently available to Soundkeeper and Waste Action Project. These violations are ongoing.

Soundkeeper and Waste Action Project intend to sue for all violations, including those yet to be uncovered and those committed after the date of this Notice of Intent to Sue.

Under Section 309(d) of the CWA, 33 U.S.C. § 1319(d), each of the above-described violations subjects the violator to a penalty of up to $37,500 per day for each violation that occurred through November 2, 2015, and $54,833 per day for each violation that occurred thereafter. In addition to civil penalties, Soundkeeper and Waste Action Project will seek injunctive relief to prevent further violations under Sections 505(a) and (d) of the CWA, 33 U.S.C. § 1365(a) and (d), and such other relief as is permitted by law. Also, Section 505(d) of the CWA, 33 U.S.C. § 1365(d), permits prevailing parties to recover costs, including attorney's fees.

Soundkeeper and Waste Action Project believe that this NOTICE OF INTENT TO SUE sufficiently states grounds for filing suit. We intend, at the close of the 60-day notice period, or shortly thereafter, to file a citizen suit against Ardagh under Section 505(a) of the Clean Water Act for violations.

During the 60-day notice period, we would be willing to discuss effective remedies for the violations addressed in this letter and settlement terms. If you wish to pursue such discussions in the absence of litigation, we suggest that you initiate those discussions within 10 days of receiving this notice so that a meeting can be arranged and so that negotiations may be completed promptly. We do not intend to delay the filing of a complaint if discussions are continuing when the notice period ends.

Sincerely,

SMITH & LOWNEY, PLLC

By: _____
Richard A. Smith
Katherine E. Brennan

cc: Andrew Wheeler, Administrator, U.S. EPA
Chris Hladick, Region 10 Administrator, U.S. EPA
Maia Bellon, Director, Washington Department of Ecology
C T Corporation System, Registered Agent (711 Capitol Way S STE 204, Olympia, WA 98501)

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
11/8/2014	0	12/24/2014	0.12	2/8/2015	0.15	3/26/2015	0
11/9/2014	0.29	12/25/2014	0	2/9/2015	0.15	3/27/2015	0.01
11/10/2014	0	12/26/2014	0	2/10/2015	0.02	3/28/2015	0
11/11/2014	0	12/27/2014	0.12	2/11/2015	0	3/29/2015	0
11/12/2014	0	12/28/2014	0.06	2/12/2015	0.02	3/30/2015	0.04
11/13/2014	0	12/29/2014	0	2/13/2015	0	3/31/2015	0.36
11/14/2014	0	12/30/2014	0	2/14/2015	0.06	4/1/2015	0.05
11/15/2014	0	12/31/2014	0	2/15/2015	0	4/2/2015	0
11/16/2014	0	1/1/2015	0	2/16/2015	0	4/3/2015	0.05
11/17/2014	0	1/2/2015	0.03	2/17/2015	0	4/4/2015	0
11/18/2014	0	1/3/2015	0.01	2/18/2015	0	4/5/2015	0
11/19/2014	0	1/4/2015	0.21	2/19/2015	0.03	4/6/2015	0
11/20/2014	0.11	1/5/2015	0.07	2/20/2015	0.02	4/7/2015	0.01
11/21/2014	0.67	1/6/2015	0.01	2/21/2015	0	4/8/2015	0
11/22/2014	0.03	1/7/2015	0	2/22/2015	0	4/9/2015	0
11/23/2014	0.43	1/8/2015	0	2/23/2015	0	4/10/2015	0.54
11/24/2014	0.01	1/9/2015	0.01	2/24/2015	0	4/11/2015	0
11/25/2014	0.33	1/10/2015	0.19	2/25/2015	0.07	4/12/2015	0
11/26/2014	0.01	1/11/2015	0.06	2/26/2015	0.26	4/13/2015	0.55
11/27/2014	0.04	1/12/2015	0	2/27/2015	0.69	4/14/2015	0.06
11/28/2014	1.39	1/13/2015	0	2/28/2015	0	4/15/2015	0
11/29/2014	0.06	1/14/2015	0	3/1/2015	0	4/16/2015	0
11/30/2014	0	1/15/2015	0.43	3/2/2015	0	4/17/2015	0
12/1/2014	0	1/16/2015	0	3/3/2015	0	4/18/2015	0
12/2/2014	0	1/17/2015	0.84	3/4/2015	0	4/19/2015	0
12/3/2014	0	1/18/2015	0.24	3/5/2015	0	4/20/2015	0
12/4/2014	0.06	1/19/2015	0.03	3/6/2015	0	4/21/2015	0.16
12/5/2014	0.11	1/20/2015	0	3/7/2015	0	4/22/2015	0
12/6/2014	0.25	1/21/2015	0	3/8/2015	0	4/23/2015	0.1
12/7/2014	0	1/22/2015	0.03	3/9/2015	0	4/24/2015	0.16
12/8/2014	0.45	1/23/2015	0.08	3/10/2015	0.02	4/25/2015	0.01
12/9/2014	0.43	1/24/2015	0.02	3/11/2015	0.08	4/26/2015	0
12/10/2014	0.49	1/25/2015	0.01	3/12/2015	0	4/27/2015	0
12/11/2014	0.33	1/26/2015	0	3/13/2015	0.09	4/28/2015	0.12
12/12/2014	0	1/27/2015	0.02	3/14/2015	0.63	4/29/2015	0
12/13/2014	0.01	1/28/2015	0	3/15/2015	2.45	4/30/2015	0
12/14/2014	0	1/29/2015	0	3/16/2015	0	5/1/2015	0
12/15/2014	0	1/30/2015	0	3/17/2015	0.04	5/2/2015	0
12/16/2014	0	1/31/2015	0	3/18/2015	0	5/3/2015	0
12/17/2014	0.16	2/1/2015	0.04	3/19/2015	0.01	5/4/2015	0
12/18/2014	0.6	2/2/2015	0.3	3/20/2015	0.13	5/5/2015	0.25
12/19/2014	0.14	2/3/2015	0.03	3/21/2015	0.14	5/6/2015	0
12/20/2014	0.66	2/4/2015	0.32	3/22/2015	0.07	5/7/2015	0
12/21/2014	0	2/5/2015	0.9	3/23/2015	0.21	5/8/2015	0
12/22/2014	0	2/6/2015	0.75	3/24/2015	0.28	5/9/2015	0
12/23/2014	0.66	2/7/2015	0.82	3/25/2015	0.13	5/10/2015	0

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
5/11/2015	0	6/26/2015	0	8/11/2015	0	9/26/2015	0
5/12/2015	0.12	6/27/2015	0	8/12/2015	0.04	9/27/2015	0
5/13/2015	0.13	6/28/2015	0	8/13/2015	0	9/28/2015	0
5/14/2015	0	6/29/2015	0.01	8/14/2015	0.82	9/29/2015	0
5/15/2015	0.01	6/30/2015	0	8/15/2015	0	9/30/2015	0
5/16/2015	0	7/1/2015	0	8/16/2015	0	10/1/2015	0.01
5/17/2015	0	7/2/2015	0	8/17/2015	0	10/2/2015	0.01
5/18/2015	0	7/3/2015	0	8/18/2015	0	10/3/2015	0
5/19/2015	0	7/4/2015	0	8/19/2015	0	10/4/2015	0
5/20/2015	0	7/5/2015	0	8/20/2015	0	10/5/2015	0
5/21/2015	0	7/6/2015	0	8/21/2015	0	10/6/2015	0.01
5/22/2015	0	7/7/2015	0	8/22/2015	0	10/7/2015	0.38
5/23/2015	0	7/8/2015	0	8/23/2015	0	10/8/2015	0
5/24/2015	0	7/9/2015	0	8/24/2015	0	10/9/2015	0.01
5/25/2015	0	7/10/2015	0	8/25/2015	0	10/10/2015	0.77
5/26/2015	0	7/11/2015	0	8/26/2015	0	10/11/2015	0
5/27/2015	0	7/12/2015	0	8/27/2015	0	10/12/2015	0.36
5/28/2015	0	7/13/2015	0	8/28/2015	0.01	10/13/2015	0.05
5/29/2015	0	7/14/2015	0	8/29/2015	0.22	10/14/2015	0
5/30/2015	0	7/15/2015	0	8/30/2015	0.27	10/15/2015	0
5/31/2015	0	7/16/2015	0	8/31/2015	0.05	10/16/2015	0.01
6/1/2015	0.09	7/17/2015	0	9/1/2015	0.18	10/17/2015	0.04
6/2/2015	0	7/18/2015	0	9/2/2015	0.01	10/18/2015	0.16
6/3/2015	0	7/19/2015	0	9/3/2015	0	10/19/2015	0
6/4/2015	0	7/20/2015	0	9/4/2015	0	10/20/2015	0
6/5/2015	0	7/21/2015	0.13	9/5/2015	0.06	10/21/2015	0
6/6/2015	0	7/22/2015	0	9/6/2015	0.19	10/22/2015	0.01
6/7/2015	0	7/23/2015	0	9/7/2015	0	10/23/2015	0
6/8/2015	0	7/24/2015	0.02	9/8/2015	0	10/24/2015	0.01
6/9/2015	0	7/25/2015	0.01	9/9/2015	0	10/25/2015	0.35
6/10/2015	0	7/26/2015	0.1	9/10/2015	0.01	10/26/2015	0.09
6/11/2015	0	7/27/2015	0.01	9/11/2015	0	10/27/2015	0.01
6/12/2015	0	7/28/2015	0	9/12/2015	0	10/28/2015	0.1
6/13/2015	0	7/29/2015	0	9/13/2015	0.03	10/29/2015	0.02
6/14/2015	0	7/30/2015	0	9/14/2015	0	10/30/2015	0.56
6/15/2015	0	7/31/2015	0	9/15/2015	0	10/31/2015	0.83
6/16/2015	0	8/1/2015	0	9/16/2015	0.05	11/1/2015	0.47
6/17/2015	0	8/2/2015	0	9/17/2015	0.57	11/2/2015	0.07
6/18/2015	0	8/3/2015	0	9/18/2015	0.01	11/3/2015	0.07
6/19/2015	0.07	8/4/2015	0	9/19/2015	0	11/4/2015	0
6/20/2015	0	8/5/2015	0	9/20/2015	0.09	11/5/2015	0.01
6/21/2015	0	8/6/2015	0	9/21/2015	0	11/6/2015	0.01
6/22/2015	0	8/7/2015	0	9/22/2015	0	11/7/2015	0.49
6/23/2015	0	8/8/2015	0	9/23/2015	0	11/8/2015	0.38
6/24/2015	0	8/9/2015	0	9/24/2015	0	11/9/2015	0.16
6/25/2015	0	8/10/2015	0	9/25/2015	0.03	11/10/2015	0.07

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
11/11/2015	0.04	12/27/2015	0.32	2/11/2016	0.38	3/30/2016	0
11/12/2015	0.24	12/28/2015	0.03	2/12/2016	0.85	3/31/2016	0
11/13/2015	1.31	12/29/2015	0	2/15/2016	0.12	4/1/2016	0
11/14/2015	1.66	12/30/2015	0	2/16/2016	0.01	4/2/2016	0
11/15/2015	0.73	12/31/2015	0	2/17/2016	0.46	4/3/2016	0.18
11/16/2015	0.09	1/1/2016	0	2/18/2016	0.12	4/4/2016	0.11
11/17/2015	0.74	1/2/2016	0	2/19/2016	0.49	4/5/2016	0
11/18/2015	0.05	1/3/2016	0.01	2/20/2016	0	4/6/2016	0
11/19/2015	0.08	1/4/2016	0.07	2/21/2016	0.07	4/7/2016	0
11/20/2015	0	1/5/2016	0.11	2/22/2016	0.01	4/8/2016	0
11/21/2015	0	1/6/2016	0	2/23/2016	0	4/9/2016	0
11/22/2015	0	1/7/2016	0	2/24/2016	0.02	4/10/2016	0
11/23/2015	0.12	1/8/2016	0	2/25/2016	0	4/11/2016	0
11/24/2015	0.21	1/9/2016	0	2/26/2016	0.15	4/12/2016	0.44
11/25/2015	0	1/10/2016	0	2/27/2016	0.08	4/13/2016	0.03
11/26/2015	0	1/11/2016	0.07	2/28/2016	0.69	4/14/2016	0.17
11/27/2015	0	1/12/2016	0.52	2/29/2016	0.11	4/15/2016	0
11/28/2015	0	1/13/2016	0.57	3/1/2016	0.71	4/16/2016	0
11/29/2015	0	1/14/2016	0	3/2/2016	0.27	4/17/2016	0
11/30/2015	0.01	1/15/2016	0.04	3/3/2016	0.03	4/18/2016	0
12/1/2015	0.39	1/16/2016	0.41	3/4/2016	0.21	4/19/2016	0
12/2/2015	0.07	1/17/2016	0.32	3/5/2016	0.2	4/20/2016	0
12/3/2015	0.51	1/18/2016	0.05	3/6/2016	0.39	4/21/2016	0
12/4/2015	0.12	1/19/2016	0.46	3/7/2016	0.26	4/22/2016	0.02
12/5/2015	0.81	1/20/2016	0.2	3/8/2016	0.05	4/23/2016	0.02
12/6/2015	0.55	1/21/2016	1.27	3/9/2016	0.95	4/24/2016	0.35
12/7/2015	1.07	1/22/2016	0.27	3/10/2016	0.32	4/25/2016	0.02
12/8/2015	1.51	1/23/2016	0.53	3/11/2016	0.36	4/26/2016	0
12/9/2015	0.55	1/24/2016	0	3/12/2016	0.02	4/27/2016	0
12/10/2015	0.63	1/25/2016	0	3/13/2016	0.52	4/28/2016	0
12/11/2015	0.01	1/26/2016	0.27	3/14/2016	0.06	4/29/2016	0.04
12/12/2015	0.56	1/27/2016	0.81	3/15/2016	0	4/30/2016	0
12/13/2015	0.11	1/28/2016	0.51	3/16/2016	0	5/1/2016	0
12/14/2015	0	1/29/2016	0.18	3/17/2016	0	5/2/2016	0
12/15/2015	0.02	1/30/2016	0.02	3/18/2016	0	5/3/2016	0
12/16/2015	0.13	1/31/2016	0	3/19/2016	0	5/4/2016	0
12/17/2015	0.82	2/1/2016	0.25	3/20/2016	0.08	5/5/2016	0
12/18/2015	0.54	2/2/2016	0.02	3/21/2016	0.28	5/6/2016	
12/19/2015	0.01	2/3/2016	0.48	3/22/2016	0.01	5/7/2016	0
12/20/2015	0.19	2/4/2016	0.05	3/23/2016	0.13	5/8/2016	0.02
12/21/2015	0.83	2/5/2016	0.15	3/24/2016	0	5/9/2016	0
12/22/2015	0.12	2/6/2016	0	3/25/2016	0	5/10/2016	0
12/23/2015	0.09	2/7/2016	0	3/26/2016	0.09	5/11/2016	0
12/24/2015	0.11	2/8/2016	0	3/27/2016	0.43	5/12/2016	0
12/25/2015	0.05	2/9/2016	0	3/28/2016	0	5/13/2016	0
12/26/2015	0	2/10/2016	0.16	3/29/2016	0	5/14/2016	0

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
5/15/2016	0	6/30/2016	0	8/15/2016	0	9/30/2016	0
5/16/2016	0	7/1/2016	0	8/16/2016	0	10/1/2016	0.1
5/17/2016	0	7/2/2016	0	8/17/2016	0	10/2/2016	0
5/18/2016	0	7/3/2016	0	8/18/2016	0	10/3/2016	0.01
5/19/2016	0.22	7/4/2016	0	8/19/2016	0	10/4/2016	0.11
5/20/2016	0	7/5/2016	0	8/20/2016	0	10/5/2016	0.03
5/21/2016	0.04	7/6/2016	0	8/21/2016	0	10/6/2016	0.34
5/22/2016	0	7/7/2016	0.07	8/22/2016	0	10/7/2016	0.08
5/23/2016	0	7/8/2016	0.18	8/23/2016	0	10/8/2016	0.65
5/24/2016	0	7/9/2016	0.02	8/24/2016	0	10/9/2016	0.21
5/25/2016	0	7/10/2016	0	8/25/2016	0	10/10/2016	0
5/26/2016	0	7/11/2016		8/26/2016	0	10/11/2016	0
5/27/2016	0.02	7/12/2016	0	8/27/2016	0	10/12/2016	0.01
5/28/2016	0.03	7/13/2016	0	8/28/2016	0	10/13/2016	1.74
5/29/2016	0	7/14/2016	0	8/29/2016	0	10/14/2016	1.49
5/30/2016	0	7/15/2016	0	8/30/2016	0	10/15/2016	0.68
5/31/2016	0	7/16/2016	0	8/31/2016	0	10/16/2016	0.52
6/1/2016	0	7/17/2016	0	9/1/2016	0	10/17/2016	0.04
6/2/2016	0	7/18/2016	0	9/2/2016	0	10/18/2016	0.12
6/3/2016	0	7/19/2016	0	9/3/2016	0	10/19/2016	0.18
6/4/2016	0	7/20/2016	0	9/4/2016	0	10/20/2016	1.17
6/5/2016	0	7/21/2016	0	9/5/2016	0	10/21/2016	0.01
6/6/2016	0	7/22/2016	0.21	9/6/2016	0	10/22/2016	0.04
6/7/2016	0	7/23/2016	0	9/7/2016	0.02	10/23/2016	0.11
6/8/2016	0	7/24/2016	0	9/8/2016	0	10/24/2016	0.13
6/9/2016	0.07	7/25/2016	0	9/9/2016	0	10/25/2016	0.02
6/10/2016	0	7/26/2016	0	9/10/2016	0	10/26/2016	1.46
6/11/2016	0.1	7/27/2016	0	9/11/2016	0	10/27/2016	0.07
6/12/2016	0	7/28/2016	0	9/12/2016	0	10/28/2016	0.01
6/13/2016	0	7/29/2016	0	9/13/2016	0	10/29/2016	0.17
6/14/2016	0.05	7/30/2016	0	9/14/2016	0	10/30/2016	0.23
6/15/2016	0	7/31/2016	0	9/15/2016	0	10/31/2016	0.75
6/16/2016	0	8/1/2016	0	9/16/2016	0	11/1/2016	0.26
6/17/2016	0.34	8/2/2016	0	9/17/2016	0.09	11/2/2016	0.48
6/18/2016	0.04	8/3/2016	0	9/18/2016	0	11/3/2016	0
6/19/2016	0	8/4/2016	0	9/19/2016	0.01	11/4/2016	0
6/20/2016	0.56	8/5/2016	0	9/20/2016	0	11/5/2016	0.94
6/21/2016	0.07	8/6/2016	0	9/21/2016	0	11/6/2016	0.21
6/22/2016	0	8/7/2016	0.03	9/22/2016	0	11/7/2016	0.05
6/23/2016	0.36	8/8/2016	0	9/23/2016	0	11/8/2016	0
6/24/2016	0.13	8/9/2016	0	9/24/2016	0	11/9/2016	0.19
6/25/2016	0	8/10/2016	0	9/25/2016	0	11/10/2016	0
6/26/2016	0	8/11/2016	0	9/26/2016	0	11/11/2016	0
6/27/2016	0	8/12/2016	0	9/27/2016	0	11/12/2016	0.09
6/28/2016	0	8/13/2016	0	9/28/2016	0	11/13/2016	0.25
6/29/2016	0	8/14/2016	0	9/29/2016	0	11/14/2016	0.24

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
11/15/2016	1.02	12/31/2016	0	2/15/2017	1.65	4/2/2017	0.05
11/16/2016	0	1/1/2017	0.16	2/16/2017	0.46	4/3/2017	0
11/17/2016	0	1/2/2017	0	2/17/2017	0	4/4/2017	0.09
11/18/2016	0	1/3/2017	0	2/18/2017	0.13	4/5/2017	0.51
11/19/2016	0.1	1/4/2017	0	2/19/2017	0.12	4/6/2017	0.27
11/20/2016	0.1	1/5/2017	0	2/20/2017	0.2	4/7/2017	0.37
11/21/2016	0.03	1/6/2017	0	2/21/2017	0.22	4/8/2017	0.06
11/22/2016	0.52	1/7/2017	0	2/22/2017	0.01	4/9/2017	0.01
11/23/2016	0.26	1/8/2017	0.56	2/23/2017	0.03	4/10/2017	0.35
11/24/2016	1.16	1/9/2017	0.06	2/24/2017	0	4/11/2017	0.01
11/25/2016	0.05	1/10/2017	0.1	2/25/2017	0	4/12/2017	0.87
11/26/2016	0.52	1/11/2017	0	2/26/2017	0.26	4/13/2017	0.13
11/27/2016	0.42	1/12/2017	0	2/27/2017	0.46	4/14/2017	0.02
11/28/2016	0	1/13/2017	0	2/28/2017	0	4/15/2017	0
11/29/2016	0.06	1/14/2017	0	3/1/2017	0	4/16/2017	0
11/30/2016	0.19	1/15/2017	0	3/2/2017	0.07	4/17/2017	0.06
12/1/2016	0	1/16/2017	0	3/3/2017	0.59	4/18/2017	0.22
12/2/2016	0.2	1/17/2017	1.52	3/4/2017	0.03	4/19/2017	0.38
12/3/2016	0.06	1/18/2017	1.21	3/5/2017	0.11	4/20/2017	0
12/4/2016	0.17	1/19/2017	0.13	3/6/2017	0	4/21/2017	0
12/5/2016	0.23	1/20/2017	0	3/7/2017	0.46	4/22/2017	0.13
12/6/2016	0	1/21/2017	0.04	3/8/2017	0.03	4/23/2017	0.21
12/7/2016	0	1/22/2017	0.12	3/9/2017	0.53	4/24/2017	0.02
12/8/2016	0.04	1/23/2017	0	3/10/2017	0.02	4/25/2017	0.01
12/9/2016	0.29	1/24/2017	0	3/11/2017	0.28	4/26/2017	0.04
12/10/2016	0.21	1/25/2017	0	3/12/2017	0.02	4/27/2017	0.02
12/11/2016	0.06	1/26/2017	0	3/13/2017	0.51	4/28/2017	0.06
12/12/2016	0.02	1/27/2017	0	3/14/2017	0.36	4/29/2017	0.06
12/13/2016	0	1/28/2017	0	3/15/2017	0.71	4/30/2017	0.05
12/14/2016	0	1/29/2017	0	3/16/2017	0	5/1/2017	0.07
12/15/2016	0	1/30/2017	0	3/17/2017	0.77	5/2/2017	0.13
12/16/2016	0	1/31/2017	0.01	3/18/2017	0.47	5/3/2017	0.19
12/17/2016	0	2/1/2017	0	3/19/2017	0	5/4/2017	0.36
12/18/2016	0	2/2/2017	0	3/20/2017	0	5/5/2017	0.19
12/19/2016	0.55	2/3/2017	0.66	3/21/2017	0.17	5/6/2017	0.43
12/20/2016	0.01	2/4/2017	0.71	3/22/2017	0	5/7/2017	0
12/21/2016	0	2/5/2017	0.68	3/23/2017	0.25	5/8/2017	0
12/22/2016	0.36	2/6/2017	0.39	3/24/2017	0.45	5/9/2017	0
12/23/2016	0.61	2/7/2017	0	3/25/2017	0.01	5/10/2017	0
12/24/2016	0	2/8/2017	0.76	3/26/2017	0.31	5/11/2017	0.38
12/25/2016	0	2/9/2017	1.55	3/27/2017	0.08	5/12/2017	0.19
12/26/2016	0.39	2/10/2017	0.06	3/28/2017	0.08	5/13/2017	0.08
12/27/2016	0	2/11/2017	0.01	3/29/2017	0.41	5/14/2017	0.01
12/28/2016	0	2/12/2017	0	3/30/2017	0.01	5/15/2017	0.28
12/29/2016	0.13	2/13/2017	0	3/31/2017	0	5/16/2017	0.14
12/30/2016	0.06	2/14/2017	0.23	4/1/2017	0.06	5/17/2017	0

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
5/18/2017	0	7/3/2017	0	8/18/2017	0	10/3/2017	0
5/19/2017	0	7/4/2017	0	8/19/2017	0	10/4/2017	0
5/20/2017	0	7/5/2017	0	8/20/2017	0	10/5/2017	0
5/21/2017	0	7/6/2017	0	8/21/2017	0	10/6/2017	0
5/22/2017	0	7/7/2017	0	8/22/2017	0	10/7/2017	0.08
5/23/2017	0	7/8/2017	0	8/23/2017	0	10/8/2017	0
5/24/2017	0	7/9/2017	0	8/24/2017	0	10/9/2017	0
5/25/2017	0	7/10/2017	0	8/25/2017	0	10/10/2017	0.01
5/26/2017	0	7/11/2017	0	8/26/2017	0	10/11/2017	0
5/27/2017	0	7/12/2017	0	8/27/2017	0	10/12/2017	0.15
5/28/2017	0	7/13/2017	0	8/28/2017	0	10/13/2017	0
5/29/2017	0	7/14/2017	0	8/29/2017	0	10/14/2017	0
5/30/2017	0	7/15/2017	0	8/30/2017	0	10/15/2017	0
5/31/2017	0.05	7/16/2017	0	8/31/2017	0	10/16/2017	0
6/1/2017	0	7/17/2017	0	9/1/2017	0	10/17/2017	0.05
6/2/2017	0	7/18/2017	0	9/2/2017	0	10/18/2017	1.04
6/3/2017	0	7/19/2017	0	9/3/2017	0	10/19/2017	0.41
6/4/2017	0	7/20/2017	0	9/4/2017	0	10/20/2017	0.11
6/5/2017	0	7/21/2017	0	9/5/2017	0	10/21/2017	0.19
6/6/2017	0	7/22/2017	0	9/6/2017	0	10/22/2017	0.04
6/7/2017	0.02	7/23/2017	0	9/7/2017	0	10/23/2017	0
6/8/2017	0.27	7/24/2017	0	9/8/2017	0	10/24/2017	0
6/9/2017	0	7/25/2017	0	9/9/2017	0	10/25/2017	0
6/10/2017	0	7/26/2017	0	9/10/2017	0	10/26/2017	0
6/11/2017	0	7/27/2017	0	9/11/2017	0	10/27/2017	0
6/12/2017	0	7/28/2017	0	9/12/2017	0	10/28/2017	0
6/13/2017	0	7/29/2017	0	9/13/2017	0	10/29/2017	0
6/14/2017	0	7/30/2017	0	9/14/2017	0	10/30/2017	0
6/15/2017	0.9	7/31/2017	0	9/15/2017	0	10/31/2017	0
6/16/2017	0	8/1/2017	0	9/16/2017	0	11/1/2017	0
6/17/2017	0.01	8/2/2017	0	9/17/2017	0.06	11/2/2017	0.08
6/18/2017	0	8/3/2017	0	9/18/2017	0.17	11/3/2017	0
6/19/2017	0	8/4/2017	0	9/19/2017	0.27	11/4/2017	0.01
6/20/2017	0	8/5/2017	0	9/20/2017	0.04	11/5/2017	
6/21/2017	0	8/6/2017	0	9/21/2017	0	11/6/2017	0
6/22/2017	0	8/7/2017	0	9/22/2017	0	11/7/2017	
6/23/2017	0	8/8/2017	0	9/23/2017	0	11/8/2017	0.13
6/24/2017	0	8/9/2017	0	9/24/2017	0	11/9/2017	0.27
6/25/2017	0	8/10/2017	0	9/25/2017	0.02	11/10/2017	0
6/26/2017	0	8/11/2017	0	9/26/2017	0	11/11/2017	0.14
6/27/2017	0	8/12/2017	0.02	9/27/2017	0	11/12/2017	0.57
6/28/2017	0	8/13/2017	0	9/28/2017	0	11/13/2017	0.61
6/29/2017	0	8/14/2017	0	9/29/2017	0.04	11/14/2017	0.07
6/30/2017	0	8/15/2017	0	9/30/2017	0.03	11/15/2017	0.64
7/1/2017	0	8/16/2017	0	10/1/2017	0	11/16/2017	0.08
7/2/2017	0	8/17/2017	0	10/2/2017	0	11/17/2017	0

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Date	Inches	Date	Inches	Date	Inches	Date	Inches
11/18/2017	0	1/3/2018	0	2/18/2018	0.03	4/5/2018	0.19
11/19/2017	0.38	1/4/2018	0.13	2/19/2018	0	4/6/2018	0
11/20/2017	0.49	1/5/2018	0.39	2/20/2018	0	4/7/2018	0.74
11/21/2017	1.26	1/6/2018	0.23	2/21/2018	0.02	4/8/2018	0.27
11/22/2017	0.56	1/7/2018	0.4	2/22/2018	0	4/9/2018	0
11/23/2017	0.1	1/8/2018	0.11	2/23/2018	0	4/10/2018	0.2
11/24/2017	0	1/9/2018	0.29	2/24/2018	0.03	4/11/2018	0.25
11/25/2017	0.22	1/10/2018	0.1	2/25/2018	0.06	4/12/2018	0.11
11/26/2017	0.2	1/11/2018	0.88	2/26/2018	0	4/13/2018	0.38
11/27/2017	0	1/12/2018	0.1	2/27/2018	0.51	4/14/2018	1.83
11/28/2017	0.57	1/13/2018	0	2/28/2018	0.37	4/15/2018	0.11
11/29/2017	0.01	1/14/2018	0	3/1/2018	0.02	4/16/2018	0.25
11/30/2017	0.26	1/15/2018	0.07	3/2/2018	0.16	4/17/2018	0.01
12/1/2017	0.21	1/16/2018	0.18	3/3/2018	0	4/18/2018	0
12/2/2017	0.61	1/17/2018	0.38	3/4/2018	0.07	4/19/2018	0
12/3/2017	0.04	1/18/2018	0.67	3/5/2018	0	4/20/2018	0
12/4/2017	0	1/19/2018	0.02	3/6/2018	0	4/21/2018	0.08
12/5/2017	0	1/20/2018	0.05	3/7/2018	0.05	4/22/2018	0
12/6/2017	0	1/21/2018	0.22	3/8/2018	0.45	4/23/2018	0
12/7/2017	0	1/22/2018	0.14	3/9/2018	0	4/24/2018	0
12/8/2017	0	1/23/2018	0.8	3/10/2018	0	4/25/2018	0
12/9/2017	0	1/24/2018	0.39	3/11/2018	0	4/26/2018	0
12/10/2017	0	1/25/2018	0.12	3/12/2018	0	4/27/2018	0
12/11/2017	0	1/26/2018	0.18	3/13/2018	0.16	4/28/2018	0.37
12/12/2017	0	1/27/2018	0.56	3/14/2018	0.01	4/29/2018	0
12/13/2017	0	1/28/2018	0.03	3/15/2018	0	4/30/2018	0
12/14/2017	0	1/29/2018	0.89	3/16/2018	0	5/1/2018	0.01
12/15/2017	0.02	1/30/2018	0	3/17/2018	0	5/2/2018	0
12/16/2017	0.1	1/31/2018	0	3/18/2018	0	5/3/2018	0
12/17/2017	0.01	2/1/2018	0.57	3/19/2018	0	5/4/2018	0
12/18/2017	0.69	2/2/2018	0.02	3/20/2018	0	5/5/2018	0.02
12/19/2017	1.14	2/3/2018	0.11	3/21/2018	0.14	5/6/2018	0
12/20/2017	0.07	2/4/2018	0.02	3/22/2018	0.36	5/7/2018	0
12/21/2017	0	2/5/2018	0	3/23/2018	0.35	5/8/2018	0.03
12/22/2017	0.06	2/6/2018	0	3/24/2018	0.16	5/9/2018	0
12/23/2017	0	2/7/2018	0	3/25/2018	0	5/10/2018	0.01
12/24/2017	0.11	2/8/2018	0.08	3/26/2018	0.06	5/11/2018	0
12/25/2017	0.07	2/9/2018	0.05	3/27/2018	0	5/12/2018	0
12/26/2017	0	2/10/2018	0	3/28/2018	0	5/13/2018	0
12/27/2017	0	2/11/2018	0	3/29/2018	0	5/14/2018	0
12/28/2017	0.09	2/12/2018	0	3/30/2018	0	5/15/2018	0
12/29/2017	1.37	2/13/2018	0.16	3/31/2018	0	5/16/2018	0
12/30/2017	0.08	2/14/2018	0.09	4/1/2018	0.14	5/17/2018	0
12/31/2017	0	2/15/2018	0.01	4/2/2018	0	5/18/2018	0
1/1/2018	0	2/16/2018	0.07	4/3/2018	0	5/19/2018	0.02
1/2/2018	0	2/17/2018	0.25	4/4/2018	0.27	5/20/2018	0

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
5/21/2018	0	7/6/2018	0	8/21/2018	0	10/7/2018	0
5/22/2018	0	7/7/2018	0	8/22/2018	0	10/8/2018	0.03
5/23/2018	0	7/8/2018	0	8/23/2018	0	10/9/2018	0.03
5/24/2018	0	7/9/2018	0	8/24/2018	0	10/10/2018	0
5/25/2018	0	7/10/2018	0	8/25/2018	0	10/11/2018	0
5/26/2018	0	7/11/2018	0	8/26/2018	0.02	10/12/2018	0
5/27/2018	0	7/12/2018	0	8/27/2018	0	10/13/2018	0
5/28/2018	0	7/13/2018	0	8/28/2018	0	10/14/2018	0
5/29/2018	0	7/14/2018	0	8/29/2018	0	10/15/2018	0
5/30/2018	0	7/15/2018	0	8/30/2018	0	10/16/2018	0
5/31/2018	0.02	7/16/2018	0	8/31/2018	0	10/17/2018	0
6/1/2018	0	7/17/2018	0	9/1/2018	0	10/18/2018	0
6/2/2018	0	7/18/2018	0	9/2/2018	0	10/19/2018	0
6/3/2018	0.02	7/19/2018	0	9/3/2018	0	10/20/2018	0
6/4/2018	0.03	7/20/2018	0	9/4/2018	0	10/21/2018	0
6/5/2018	0	7/21/2018	0	9/5/2018	0	10/22/2018	0
6/6/2018	0	7/22/2018	0	9/6/2018	0	10/23/2018	0
6/7/2018	0	7/23/2018	0	9/7/2018	0.07	10/24/2018	0
6/8/2018	0.23	7/24/2018	0	9/9/2018	0.19	10/25/2018	0
6/9/2018	0.17	7/25/2018	0	9/10/2018	0.01	10/26/2018	1.05
6/10/2018	0.1	7/26/2018	0	9/11/2018	0.05	10/27/2018	0.89
6/11/2018	0	7/27/2018	0	9/12/2018	0	10/28/2018	0.32
6/12/2018	0	7/28/2018	0	9/13/2018	0.19	10/29/2018	0.01
6/13/2018	0.11	7/29/2018	0	9/14/2018	0.29	10/30/2018	0.04
6/14/2018	0	7/30/2018	0	9/15/2018	0.09	10/31/2018	0.01
6/15/2018	0	7/31/2018	0	9/16/2018	0.19	11/1/2018	0.04
6/16/2018	0	8/1/2018	0	9/17/2018	0	11/2/2018	0.19
6/17/2018	0	8/2/2018	0	9/18/2018	0	11/3/2018	0.17
6/18/2018	0	8/3/2018	0	9/19/2018	0.04	11/4/2018	0.12
6/19/2018	0	8/4/2018	0	9/20/2018	0.18	11/5/2018	0
6/20/2018	0	8/5/2018	0	9/21/2018	0.06	11/6/2018	0.05
6/21/2018	0	8/6/2018	0	9/22/2018	0.05	11/7/2018	0.05
6/22/2018	0.04	8/7/2018	0	9/23/2018	0	11/8/2018	0
6/23/2018	0.08	8/8/2018	0	9/24/2018	0	11/9/2018	0.1
6/24/2018	0.14	8/9/2018	0	9/25/2018	0	11/10/2018	0.01
6/25/2018	0.02	8/10/2018	0	9/26/2018	0	11/11/2018	0
6/26/2018	0	8/11/2018	0.02	9/27/2018	0	11/12/2018	0
6/27/2018	0	8/12/2018	0	9/28/2018	0	11/13/2018	0
6/28/2018	0	8/13/2018	0	9/29/2018		11/14/2018	0.04
6/29/2018	0	8/14/2018	0	9/30/2018	0	11/15/2018	0.01
6/30/2018	0.01	8/15/2018	0	10/1/2018	0.01	11/16/2018	0.01
7/1/2018	0	8/16/2018	0	10/2/2018	0	11/17/2018	0
7/2/2018	0	8/17/2018	0	10/3/2018	0	11/18/2018	0
7/3/2018	0	8/18/2018	0	10/4/2018	0	11/19/2018	0
7/4/2018	0	8/19/2018	0	10/5/2018	0.01	11/20/2018	0
7/5/2018	0	8/20/2018	0	10/6/2018	0	11/21/2018	0.13

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
11/22/2018	0.5	1/7/2019	0	2/22/2019	0.13	4/9/2019	0.19
11/23/2018	0.59	1/8/2019	0.2	2/23/2019	0.12	4/10/2019	0.14
11/24/2018	0	1/9/2019	0.25	2/24/2019	0	4/11/2019	0.55
11/25/2018	0	1/10/2019	0.12	2/25/2019	0	4/12/2019	0.15
11/26/2018	1.37	1/11/2019	0	2/26/2019	0	4/13/2019	0.05
11/27/2018	0.7	1/12/2019	0	2/27/2019	0	4/14/2019	0.01
11/28/2018	0.24	1/13/2019	0	2/28/2019	0	4/15/2019	0
11/29/2018	0	1/14/2019	0	3/1/2019	0	4/16/2019	0.14
11/30/2018	0.18	1/15/2019	0	3/2/2019	0	4/17/2019	0
12/1/2018	0.06	1/16/2019	0	3/3/2019	0	4/18/2019	0.1
12/2/2018	0.04	1/17/2019	0.11	3/4/2019	0	4/19/2019	0.21
12/3/2018	0	1/18/2019	0.34	3/5/2019	0	4/20/2019	0
12/4/2018	0	1/19/2019	0.08	3/6/2019	0.1	4/21/2019	0
12/5/2018	0	1/20/2019	0	3/7/2019	0.15	4/22/2019	0.13
12/6/2018	0	1/21/2019	0	3/8/2019	0.07	4/23/2019	0
12/7/2018	0	1/22/2019	0.49	3/9/2019	0	4/24/2019	0
12/8/2018	0.01	1/23/2019	0.16	3/10/2019	0	4/25/2019	0
12/9/2018	0.53	1/24/2019	0.06	3/11/2019	0.28	4/26/2019	0
12/10/2018	0.09	1/25/2019	0	3/12/2019	0.49	4/29/2019	0
12/11/2018	0.51	1/26/2019	0	3/13/2019	0	4/30/2019	0
12/12/2018	0.08	1/27/2019	0	3/14/2019	0	5/1/2019	0
12/13/2018	0.22	1/28/2019	0	3/15/2019	0	5/2/2019	0
12/14/2018	0.01	1/29/2019	0	3/16/2019	0	5/3/2019	0
12/15/2018	0.09	1/30/2019	0	3/17/2019	0	5/4/2019	0
12/16/2018	0.48	1/31/2019	0	3/18/2019	0	5/5/2019	0
12/17/2018	0.57	2/1/2019	0.51	3/19/2019	0	5/6/2019	0
12/18/2018	0.59	2/2/2019	0	3/20/2019	0	5/7/2019	0
12/19/2018	0	2/3/2019	0.11	3/21/2019	0	5/8/2019	0
12/20/2018	0.24	2/4/2019	0.12	3/22/2019	0.01	5/9/2019	0
12/21/2018	0	2/5/2019	0	3/23/2019	0	5/10/2019	0
12/22/2018	0.33	2/6/2019	0	3/24/2019	0	5/11/2019	0
12/23/2018	0.68	2/7/2019	0	3/25/2019	0.16	5/12/2019	0
12/24/2018	0	2/8/2019	0.39	3/26/2019	0.04	5/13/2019	0
12/25/2018	0	2/9/2019	0.23	3/27/2019	0	5/14/2019	0.05
12/26/2018	0.1	2/10/2019	0.11	3/28/2019	0	5/15/2019	0.03
12/27/2018	0.05	2/11/2019	0.89	3/29/2019	0	5/16/2019	0.16
12/28/2018	0.37	2/12/2019	0.52	3/30/2019	0	5/17/2019	0.15
12/29/2018	0.62	2/13/2019	0	3/31/2019	0	5/18/2019	0
12/30/2018	0	2/14/2019	0.14	4/1/2019	0	5/19/2019	0
12/31/2018	0	2/15/2019	0.01	4/2/2019	0	5/20/2019	0
1/1/2019	0	2/16/2019	0.27	4/3/2019	0.01	5/21/2019	0
1/2/2019	0	2/17/2019	0	4/4/2019	0.07	5/22/2019	0
1/3/2019	0.69	2/18/2019	0.09	4/5/2019	0.41	5/23/2019	0
1/4/2019	0.11	2/19/2019	0.03	4/6/2019	0.22	5/24/2019	0
1/5/2019	0.08	2/20/2019	0.21	4/7/2019	0.23	5/25/2019	0.23
1/6/2019	0.35	2/21/2019	0	4/8/2019	0.07	5/26/2019	0

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
5/27/2019	0	7/12/2019	0	8/27/2019	0	10/12/2019	0
5/28/2019	0	7/13/2019	0	8/28/2019	0	10/13/2019	0
5/29/2019	0	7/14/2019	0	8/29/2019	0.02	10/14/2019	0
5/30/2019	0	7/15/2019	0.04	8/30/2019	0	10/15/2019	0
5/31/2019	0	7/16/2019	0	8/31/2019	0.01	10/16/2019	0.23
6/1/2019	0	7/17/2019	0.02	9/1/2019	0	10/17/2019	0.05
6/2/2019	0	7/18/2019	0.04	9/2/2019	0	10/18/2019	0.54
6/3/2019	0	7/19/2019	0	9/3/2019	0	10/19/2019	0.24
6/4/2019	0	7/20/2019	0	9/4/2019	0	10/20/2019	0.06
6/5/2019	0	7/21/2019	0	9/5/2019	0	10/21/2019	0.04
6/6/2019	0	7/22/2019	0	9/6/2019	0	10/22/2019	0
6/7/2019	0	7/23/2019	0	9/7/2019	0.41	10/23/2019	0
6/8/2019	0	7/24/2019	0	9/8/2019	0	10/24/2019	0
6/9/2019	0	7/25/2019	0	9/9/2019	0.06	10/25/2019	0.1
6/10/2019	0	7/26/2019	0	9/10/2019	0	10/26/2019	0
6/11/2019	0	7/27/2019	0	9/11/2019	0	10/27/2019	0
6/12/2019	0	7/28/2019	0	9/12/2019	0.14	10/28/2019	0
6/13/2019	0	7/29/2019	0	9/13/2019	0	10/29/2019	0
6/14/2019	0	7/30/2019	0	9/14/2019	0.01	10/30/2019	0
6/15/2019	0	7/31/2019	0	9/15/2019	0.07	10/31/2019	0
6/16/2019	0	8/1/2019	0	9/16/2019	0	11/1/2019	0
6/17/2019	0	8/2/2019	0.2	9/17/2019	0.13	11/2/2019	0
6/18/2019	0	8/3/2019	0	9/18/2019	0.06	11/3/2019	0
6/19/2019	0	8/4/2019	0	9/19/2019	0	11/4/2019	0
6/20/2019		8/5/2019	0	9/20/2019	0	11/5/2019	0
6/21/2019	0	8/6/2019	0	9/21/2019		11/6/2019	0
6/22/2019	0	8/7/2019	0	9/22/2019	0.01	11/7/2019	0
6/23/2019	0	8/8/2019	0	9/23/2019	0.01	11/8/2019	0
6/24/2019	0	8/9/2019	0	9/24/2019	0	11/9/2019	0.01
6/25/2019	0	8/10/2019	0.18	9/25/2019	0	11/10/2019	0
6/26/2019	0	8/11/2019	0	9/26/2019	0.02	11/11/2019	0
6/27/2019	0	8/12/2019	0	9/27/2019	0.03	11/12/2019	0.07
6/28/2019	0	8/13/2019	0	9/28/2019	0	11/13/2019	0
6/29/2019	0	8/14/2019	0	9/29/2019	0.04	11/14/2019	0
6/30/2019	0	8/15/2019	0	9/30/2019	0	11/15/2019	0.08
7/1/2019	0	8/16/2019	0	10/1/2019	0	11/16/2019	0
7/2/2019	0.28	8/17/2019	0	10/2/2019	0	11/17/2019	0.03
7/3/2019	0	8/18/2019	0	10/3/2019	0.02	11/18/2019	0.07
7/4/2019	0	8/19/2019	0	10/4/2019	0	11/19/2019	0.06
7/5/2019	0	8/20/2019	0	10/5/2019	0	11/20/2019	0
7/6/2019	0	8/21/2019	0.1	10/6/2019	0	11/21/2019	0
7/7/2019	0.01	8/22/2019	0	10/7/2019	0	11/22/2019	0
7/8/2019	0.01	8/23/2019	0	10/8/2019	0.24	11/23/2019	0
7/9/2019	0.12	8/24/2019	0	10/9/2019	0	11/30/2019	0
7/10/2019	0.11	8/25/2019	0	10/10/2019	0	12/1/2019	0.01
7/11/2019	0	8/26/2019	0	10/11/2019	0	12/2/2019	0

Precipitation data for Seattle Boeing Field, WA US Station, WA USW00024234

Date	Inches	Date	Inches	Date	Inches	Date	Inches
12/3/2019	0						
12/4/2019	0						
12/5/2019	0						
12/6/2019	0						
12/7/2019	0.04						
12/8/2019	0						
12/9/2019	0						
12/10/2019	0.03						
12/11/2019	0.08						
12/12/2019	0.07						
12/13/2019	0						
12/14/2019	0.2						