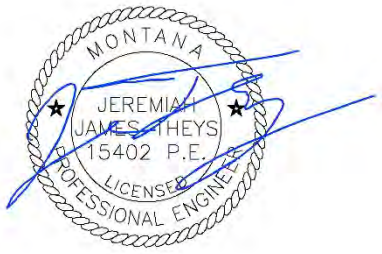
TECHNICAL MEMORANDUM

Treasure State Acres Drainage Assessment



PREPARED FOR: LEWIS AND CLARK COUNTY

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DATE: DECEMBER 22, 2023

PROJECT NUMBER: 1-18132

This technical memorandum (TM) presents Great West Engineering's (GWE) findings regarding the drainage assessment performed for the Treasure State Acres (TSA) subdivision in the Helena Valley, Lewis & Clark County, Montana.

Background

The TSA subdivision currently does not have a comprehensive stormwater management system in place. Existing curb and drop inlets are spaced throughout the subdivision, consisting of grates that allow flow into manhole structures. These act as stormwater retention, as water is held in the structures and allowed to infiltrate into the subgrade. A project completed in 2016 added several new retention structures with perforated lateral pipes surrounded by drain rock to allow for increased infiltration capacity.

Other stormwater management infrastructure within the subdivision includes miscellaneous valley gutters as well as two outfalls to remove water from the subdivision into the roadside ditch that runs parallel to Interstate 15. The primary outfall structure consists of a deep valley gutter that funnels flow into an outfall pipe to direct flow out of the system. This structure is located at the intersection of Buffalo Road and Cougar Drive. A secondary outfall structure is located at the east end of Beaverhead Road and consists of a concrete valley gutter to direct flow out of the system.

Identified Problem Areas

Landowners in the subdivision have reported numerous instances of these structures flooding and creating ponded areas. For instance, the primary outfall at Buffalo Road and Cougar Drive routinely gets plugged with debris during storm events and creates a large pond that then pushes water up Cougar Drive to the north. Consequently, several driveways and garages off Cougar Drive are flooded with stormwater.

Several other areas experience flooding because of stormwater that is not handled effectively by existing infrastructure. Existing infiltration manhole structures are regularly overwhelmed by storm flows, creating ponds at several intersections within the subdivision.

- Buffalo Road and Bobcat Drive
- Buffalo Road and Red Fox Drive
- Kodiak Road and Red Fox Drive
- Otter Road and Red Fox Drive
- Bighorn Road and Cougar Drive

- Kodiak Road and Cougar Drive
- Mustang Road and Wolverine Drive

In addition to these intersections, extensive ponding occurs along the entire south side of Buffalo Road as well as the east side of Cougar Drive to the north of Buffalo Road.

Photo 1: Ponding at Buffalo Road and Cougar Drive at Primary Outfall

Photo 2: Flooding of Driveways and Garages at North End of Cougar Drive

Photo 3: Flooding Along South Side of Buffalo Road

Photo 4: Flooding at Buffalo Road and Bobcat Drive

Photo 5: Flooding at Buffalo Road and Red Fox Drive

Photo 6: Flooding at Kodiak Road and Red Fox Drive

Photo 7: Flooding at Otter Road and Red Fox Drive

Photo 8: Flooding at Bighorn Road and Cougar Drive

Photo 9: Flooding at Kodiak Road and Cougar Drive

Photo 10: Flooding at Mustang Road and Wolverine Drive

Summary of Field Work

A crew completed field survey to collect existing roadway centerline and gutter flowline elevations throughout the entire subdivision, as well as inlet elevations of all existing stormwater infrastructure. Measure downs were also obtained to determine structure sump and infiltration lateral elevations. These elevations were used to complete an initial, high-level analysis of flow patterns within the subdivision as well as being used in the existing conditions stormwater model. Field work was completed on April 13, 2023.

Geotechnical

Geotechnical investigations were not part of GWE's contract with Lewis & Clark County. Previous geotechnical investigations performed by SK Geotechnical in 2016 were provided to GWE to aid in our analyses. Subgrade infiltration rates at select intersections were established as part of this investigation and were used to interpolate infiltration rates at other intersections for use in the existing stormwater model. See Appendix D for more information.

Existing Stormwater Model

Collected survey data and elevations were used to create an existing stormwater model in Autodesk Storm and Sanitary Analysis 2023 (SSA). The purpose of this model was to verify existing flow patterns and determine areas with the most significant street flow patterns between existing infiltration structures. Calculations were performed as per DEQ Circular 8. TR-55 (curve number) methodology was not used due to the small subbasin sizes. The Rational method produces more representative results for smaller subbasins.

Surveyed road centerline and gutter flowline elevations were imported into AutoCAD Civil 3D 2023 to create a surface that models the existing roads within the subdivision. Available LiDAR data was also imported into CAD and combined with the survey surface to create an overall composite ground model for the entire subdivision. Using this composite surface, drainage basins were manually delineated to determine contributing hydrologic areas for each existing structure. To do this, each structure was selected as a downstream "outfall" point for a singular basin, and basins were delineated by tracing identified divides in the LiDAR composite surface until the delineated basin extents looped back to the downstream structure. In general, each individual structure has one basin associated with it, but basins were combined for the structure pairs at the intersections of: Bighorn Road and Red Fox Drive, and Bighorn Road and Cougar Drive. These structures were paired because they are physically connected (in tandem) and essentially act as a singular infiltration structure.

Aerial imagery from Google was used to delineate different land uses within each drainage basin. These land uses were traced in Civil 3D to determine plan view areas. Each land use was assigned a runoff coefficient (C) to be used in the Rational method. For each drainage basin, the identified land use areas and associated C-values were used to derive a composite runoff coefficient to be used in the stormwater model. Intensity-Duration-Frequency (IDF) curve data was pulled from the Montana Department of Transportation (MDT) Hydraulics Manual, Chapter 9 – Hydrology, Appendix 9B, January 2022. This data was compiled by MDT using rainfall data from the Helena Airport weather station. This IDF curve was inputted to SSA to define the rainfall. Existing conditions for the 2-year recurrence interval, 24-hour duration storm were evaluated using the existing conditions model. This storm was also used to size our proposed stormwater infrastructure. See Appendix G for Appendix 9B of the MDT Hydrology Manual. See Appendix C for a summary of subbasin areas, runoff coefficients, and total runoff volumes.

Proposed Stormwater Infrastructure

The existing stormwater infrastructure includes a primary outfall pipe that routes water out of the subdivision and into the roadside ditch parallel to Interstate 15. GWE coordinated with MDT to determine if they would allow more flow into this ditch, but MDT did not authorize this increased flow.

Utilizing the outputs from the existing stormwater model, manual calculations were performed using Excel to size proposed underground storage chambers. The purpose of the design was to size structures to retain the entire flow volume of the 2-year, 24-hour storm within the subbasins that contribute to the problem areas and allow this volume to infiltrate into the subgrade. This methodology was adopted as a result of MDT denying increased flow into the I-15 roadside ditch. The proposed structures and their placements are intended to relieve pressure and eliminate ponding from the identified problem areas (see above).

Not every subbasin within the subdivision contributes flow to ponded areas. Some small subbasins do not produce enough runoff to overwhelm their respective storm structure(s), while others produce non-consequential volumes of excess runoff that are able to either be infiltrated using existing structures with minimal ponding or are able to flow within curb and gutter sections and reach an outfall without contributing to problem areas. Flow from subbasins to the north of Buffalo Road (1-6) flow to the north and exit the system, while others are able to exit the system via the outfall at the east end of Beaverhead Road. Table 1 below summarizes the subbasins that were determined to not contribute flow to identified problem areas and were therefore not accounted for when designing the proposed infrastructure.

Table 1: Summary of Non-Contributing Subbasins

Subbasin ID	Area (ac)	Total Runoff Volume (ft^3)
1	5.57	4851.45
2	3.00	2617.91
3	3.28	2861.36
4	5.92	5161.10
5	2.96	2576.13
6	1.71	1238.70
21	0.27	203.20
22	1.42	1236.32
23	2.05	1782.77
24	6.98	7352.41
33	2.97	2483.76
34	0.13	86.10
35	3.65	2384.85

See Appendix A for proposed structure calculations and a summary of contributing subbasins for each structure.

The primary alternative for this project is the StormTech MC-3500. These chambers consist of arched PVC sections capped at both ends to form a chamber. The chambers are also installed in drain rock to increase volume and infiltration capacity. The drain rock is assumed to have a porosity of 40% per industry standards. Each underground storage chamber can be viewed as an individual phase of the overall project. If the homeowner's association (HOA) were to install all the proposed structures, it would generally alleviate all ponding at the problem areas during the 2-year, 24-hour storm. However, even installing one relatively short length of MC-3500 would reduce or eliminate ponding at its respective intersection, while also taking pressure off other problem areas. For instance, the HOA could consider installing the proposed structure at Buffalo Road and Wolverine Drive first. This would significantly increase the storage capacity of this intersection, thereby reducing the amount of flow that would continue past this intersection and continue flowing east on Buffalo Road. Consequently, this would reduce the amount of flow that reaches the primary outfall and alleviate flooding concerns here. Similarly, if the structure at Bighorn Road and Cougar Drive was installed, storage capacity would be greatly increased which would reduce ponding as well as reducing the amount of flow that bypassed this intersection and continued flowing north along Cougar Drive. Buffalo Road and Cougar Drive act as the main "conduits" that transport flow to the primary outfall structure, so by installing these two structures and reducing the potential for flow along those roads, the subdivision would see a significant reduction in ponding and

flooding at the north end of Cougar Drive. For these reasons, it is recommended that the structure "phases" be installed starting upstream and working downstream (closer to the primary outfall).

As there is no curb and gutter section along Buffalo Road, a combination structure could be utilized. This would consist of a section or sections of an underground storage chamber installed below an open ditch. Beehive inlets in the ditch would allow for flow to enter the underground chambers, where the flow would then infiltrate into the subgrade. The open ditch also provides a small amount of additional surcharge capacity at high flows. See Appendix E for exhibits showing the proposed infrastructure configurations.

A secondary alternative evaluated for this project was the concept of installing more drop inlet/infiltration structures, like what exists onsite. The standard structure configuration for this alternative is a 4' diameter manhole structure with a circular inlet grate, 8' deep from inlet to sump with 150 linear feet of 12" diameter perforated PVC extending laterally from the manhole. These laterals would be surrounded by 6" of drain rock all the way around to provide additional storage capacity and to act as an infiltration bed. This drain rock is also assumed to have a 40% porosity per industry standard. However, to achieve the same degree of storage as the primary alternative with the secondary alternative configuration, a significant number of structures would need to be installed. Table 2 below compares, for each area of proposed improvement, the required length of MC-3500 versus the required number of inlet/lateral structures.

Table 2: Comparison of Alternatives

Location	MC-3500 Unit Storage (ft^3/ft)	Required Length of MC-3500 (ft)	Inlet/Lateral Unit Storage (ft^3/ea)	Required # of Structures (ea)
Buffalo & Wolverine	23.33	690	411	39
Bighorn & Cougar	23.33	1040	411	59
Red Fox South	23.33	450	411	26
Buffalo Between Wolverine & Red Fox	23.33	630	411	36
Red Fox North	23.33	270	411	16
Buffalo & Cougar	23.33	270	411	16
	Total (ft) =	**3350**	**Total (ea) =**	**192**

The MC-3500 unit storage column represents the volume of water in cubic feet that one linear foot of chamber with drain rock can store. The inlet/lateral unit storage column represents the total volume of water in cubic feet that one structure (consisting of one 8'-deep, 4'-diameter manhole structure with 150' of total lateral pipe length) can store. With each structure utilizing a 4' diameter manhole and 12" diameter laterals surrounded by drain rock, the secondary alternative would require an overall footprint of 60,013 square feet to contain the same volume of flow that the primary alternative is able to contain with an overall footprint of 28,194 square feet. 1,536 vertical feet of 4' diameter manhole and 28,800 linear feet of perforated 12" lateral would be required, which would likely cause significant conflict with other underground utilities to fit the required infrastructure. Such a large footprint for the secondary alternative would require significantly more excavation when compared to the primary alternative, and the cost of the required perforated laterals and manholes would be significant. All told, the labor and materials cost for the secondary alternative would be orders of magnitude larger than that of the primary alternative. For these reasons, we recommend the MC-3500 underground storage chambers as the preferred alternative. Refer to Appendix B for cost estimates for each proposed section of MC-3500 recommended.

Appendices

Appendix A: Proposed Structure Sizing Calculations

Appendix B: Cost Estimates for Preferred Alternative

Appendix C: Existing Stormwater Model Outputs – Hydrology

Appendix D: Infiltration Rates

Appendix E: Treasure State Acres – Existing and Proposed Exhibits

Appendix F: StormTech MC-3500 Product Submittal

Appendix G: MDT Hydrology Manual – Appendix 9B

Appendix A – Proposed Structure Sizing Calculations

Structure: Buffalo Between Bobcat & Wolverine

Tributary Subbasin	Basin Area (AC)	Basin Area (ft^2)	Runoff Volume (ft^3)	Available Storage (ft^3)	Required Storage (ft^3)	MC-3500 Unit Storage (ft^3/ft)	Required Length of MC-3500 (ft)	Drop Inlet w/ Laterals Unit Storage (ft^3/ea)	Required Drop Inlets w/ Laterals (ea)
7	18.146	790429.4	16467.279	603.309	15863.970	23.33	679.98	411	38.60
8	0.178	7743.47	109.699	198.500	0.000	23.33	0.00	411	0.00
11	0.596	25968.51	346.247	669.393	0.000	23.33	0.00	411	0.00
19	0.158	6894.38	114.906	73.136	41.770	23.33	1.79	411	0.10
							690		**39**

Structure: Bighorn & Cougar

Tributary Subbasin	Basin Area (AC)	Basin Area (ft^2)	Runoff Volume (ft^3)	Available Storage (ft^3)	Required Storage (ft^3)	MC-3500 Unit Storage (ft^3/ft)	Required Length of MC-3500 (ft)	Drop Inlet w/ Laterals Unit Storage (ft^3/ea)	Required Drop Inlets w/ Laterals (ea)
30	3.274	142600.78	2852.016	390.275	2461.740	23.33	105.52	411	5.99
31	4.293	186995.52	2649.103	658.409	1990.694	23.33	85.33	411	4.84
32	22.256	969475.22	20197.400	587.196	19610.204	23.33	840.56	411	47.71
36	0.442	19248.9	256.652	335.380	0.000	23.33	0.00	411	0.00
							1040		**59**

Structure: Red Fox South

Tributary Subbasin	Basin Area (AC)	Basin Area (ft^2)	Runoff Volume (ft^3)	Available Storage (ft^3)	Required Storage (ft^3)	MC-3500 Unit Storage (ft^3/ft)	Required Length of MC-3500 (ft)	Drop Inlet w/ Laterals Unit Storage (ft^3/ea)	Required Drop Inlets w/ Laterals (ea)
25	0.591	25756.27	493.662	301.209	192.453	23.33	8.25	411	0.47
26	5.170	225222.12	4316.757	527.361	3789.396	23.33	162.43	411	9.22
27	0.424	18469.78	230.872	154.241	76.632	23.33	3.28	411	0.19
28	1.532	66750.26	1056.879	259.840	797.039	23.33	34.16	411	1.94
29	6.345	276367.2	5757.650	326.332	5431.318	23.33	232.80	411	13.21
							450		**26**

Structure: Buffalo Between Wolverine & Red Fox

Tributary Subbasin	Basin Area (AC)	Basin Area (ft^2)	Runoff Volume (ft^3)	Available Storage (ft^3)	Required Storage (ft^3)	MC-3500 Unit Storage (ft^3/ft)	Required Length of MC-3500 (ft)	Drop Inlet w/ Laterals Unit Storage (ft^3/ea)	Required Drop Inlets w/ Laterals (ea)
9	5.668	246909.57	4938.191	327.086	4611.106	23.33	197.65	411	11.22
10	1.428	62212.21	829.496	698.608	130.888	23.33	5.61	411	0.32
12	5.533	240998.42	4418.304	494.196	3924.109	23.33	168.20	411	9.55
13	1.375	59902.49	998.375	187.567	810.808	23.33	34.75	411	1.97
14	0.215	9344.99	140.175	67.015	73.159	23.33	3.14	411	0.18
15	5.817	253395.77	5490.242	365.402	5124.839	23.33	219.67	411	12.47
							630		**36**

Ditch Section	Length (ft)	Volume (ft^3)	Min. Elevation	Max. Elevation	2D Area (ft^2)
1	81.23	29.38	3759.315	3762.004	721.42
2	122.28	54.51	3758.528	3761.737	1222.65
3	14.67	9.4	3758.246	3761.313	168.75
4	48.98	24.56	3757.799	3761.516	531.97
5	69.86	43	3757.21	3760.972	837.6
6	65.3	36.5	3756.707	3760.198	758.96
7	57.22	33.4	3756.16	3759.754	658.97
8	128.79	69.57	3755.256	3759.288	1458.9
9	80.89	39.97	3754.684	3757.952	842.97
	669.22	**340.29**			

Region	Total Storage (ft^3)
Open Ditch	340.29
Culverts	209.70
	549.99

^This volume is available above the proposed MC-3500 Structures along Buffalo Road as additional surcharge volume.

Culvert Section	Length (ft)	Diameter (ft)	US Invert Elevation	DS Invert Elevation	Volume (ft^3)
1	22	1	3759.31	3759.19	17.28
2	37	1	3758.53	3758.33	29.06
3	39	1	3758.25	3758.07	30.63
4	38	1	3757.8	3757.59	29.85
5	27	1	3757.21	3757.06	21.21
6	43	1	3756.71	3756.47	33.77
7	37	1	3756.16	3755.96	29.06
8	24	1	3755.26	3755.12	18.85
	267				**209.70**

Structure: Red Fox Between Cayuse & Mustang

Tributary Subbasin	Basin Area (AC)	Basin Area (ft^2)	Runoff Volume (ft^3)	Available Storage (ft^3)	Required Storage (ft^3)	MC-3500 Unit Storage (ft^3/ft)	Required Length of MC-3500 (ft)	Drop Inlet w/ Laterals Unit Storage (ft^3/ea)	Required Drop Inlets w/ Laterals (ea)
20	12.71	553727.67	6460.156	262.182	6197.974	23.33	265.67	411	15.08
							270		**16**

Structure: Cougar & Buffalo

Tributary Subbasin	Basin Area (AC)	Basin Area (ft^2)	Runoff Volume (ft^3)	Available Storage (ft^3)	Required Storage (ft^3)	MC-3500 Unit Storage (ft^3/ft)	Required Length of MC-3500 (ft)	Drop Inlet w/ Laterals Unit Storage (ft^3/ea)	Required Drop Inlets w/ Laterals (ea)
16	6.95	302685.62	6305.950	183.873	6122.078	23.33	262.412	411	14.90
17	0.91	39831.12	564.274	764.939	0.000	23.33	0.000	411	0.00
18	0.49	21269.66	265.871	173.789	92.081	23.33	3.947	411	0.22
							270		**16**

Appendix B – Cost Estimates

OPINION OF PROBABLE COST

PROJECT	PROJECT NO.	DATE
Treasure State Acres Drainage Assessment	***1-18132-TO8***	***12/22/2023***
Buffalo & Wolverine	***690 Linear Feet MC-3500***	

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mobilization	1	LS	*$33,300.00*	$33,300
2	Traffic Control	1	LS	*$2,000.00*	$2,000
3	StormTech MC-3500 Installed	16098	CF	*$11.00*	$177,078
4	12" PVC Storm Drain Installed	1	LS	*$10,000.00*	$10,000
5	Surface Restoration (Asphalt)	700	SY	*$100.00*	$70,000
6	Field Cast Pipe-to-Manhole Connections	1	LS	*$10,000.00*	$10,000
7	Utility Conflicts	1	LS	*$30,000.00*	$30,000
		SUBTOTAL			**$332,378**
		CONTINGENCY		20%	$66,476
		TOTAL			**$398,854**

Evan Carroll, P.E.

ESTIMATE BY:

Jeremiah Theys, P.E.

CHECKED BY:

REVISED BY:

This Opinion of Probable Cost is the opinion of the engineer of the probable construction cost, and is supplied as a guide only. Since the engineer has no control over the costs of labor and materials or over competitive bidding and market conditions, the engineer does not guarantee the accuracy of such opinion as compared to contractor's bids or actual costs to the owner. Estimate is calculated in 2023 dollars.

OPINION OF PROBABLE COST

PROJECT	PROJECT NO.	DATE
Treasure State Acres Drainage Assessment	***1-18132-TO8***	***12/22/2023***
Bighorn & Cougar	***1040 Linear Feet MC-3500***	

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mobilization	1	LS	*$49,000.00*	$49,000
2	Traffic Control	1	LS	*$2,000.00*	$2,000
3	StormTech MC-3500 Installed	24264	CF	*$11.00*	$266,904
4	12" PVC Storm Drain Installed	1	LS	*$12,000.00*	$12,000
5	Surface Restoration (Asphalt)	1000	SY	*$100.00*	$100,000
6	Field Cast Pipe-to-Manhole Connections	1	LS	*$15,000.00*	$15,000
7	Utility Conflicts	1	LS	*$45,000.00*	$45,000
		SUBTOTAL			**$489,904**
		CONTINGENCY		20%	$97,981
		TOTAL			**$587,885**

Evan Carroll, P.E.

ESTIMATE BY:

Jeremiah Theys, P.E.

CHECKED BY:

REVISED BY:

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OPINION OF PROBABLE COST

PROJECT	PROJECT NO.	DATE
Treasure State Acres Drainage Assessment	***1-18132-TO8***	***12/22/2023***
Red Fox South	***450 Linear Feet MC-3500***	

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mobilization	1	LS	*$22,600.00*	$22,600
2	Traffic Control	1	LS	*$2,000.00*	$2,000
3	StormTech MC-3500 Installed	10499	CF	*$11.00*	$115,489
4	12" PVC Storm Drain Installed	1	LS	*$8,000.00*	$8,000
5	Surface Restoration (Asphalt)	500	SY	*$100.00*	$50,000
6	Field Cast Pipe-to-Manhole Connections	1	LS	*$7,500.00*	$7,500
7	Utility Conflicts	1	LS	*$20,000.00*	$20,000
		SUBTOTAL			**$225,589**
		CONTINGENCY		20%	$45,118
		TOTAL			**$270,707**

Evan Carroll, P.E.

ESTIMATE BY:

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OPINION OF PROBABLE COST

PROJECT	PROJECT NO.	DATE
Treasure State Acres Drainage Assessment	***1-18132-TO8***	***12/22/2023***
Buffalo - Wolverine to Red Fox	***630 Linear Feet MC-3500 w/ Open Ditch***	

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mobilization	1	LS	*$29,900.00*	$29,900
2	Traffic Control	1	LS	*$2,000.00*	$2,000
3	StormTech MC-3500 Installed	14698	CF	*$11.00*	$161,678
4	12" CMP Culverts Installed	1	LS	*$25,000.00*	$25,000
5	Open Ditch Shaping	1	LS	*$10,000.00*	$10,000
6	Beehive Inlets and Risers Installed	1	LS	*$15,000.00*	$15,000
7	Surface Restoration (Concrete Driveways)	1	LS	*$25,000.00*	$25,000
8	Surface Restoration (Asphalt)	1	LS	*$5,000.00*	$5,000
9	Utility Conflicts	1	LS	*$25,000.00*	$25,000
		SUBTOTAL			**$298,578**
		CONTINGENCY		20%	$59,716
		TOTAL			**$358,294**

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OPINION OF PROBABLE COST

PROJECT	PROJECT NO.	DATE
Treasure State Acres Drainage Assessment	***1-18132-TO8***	***12/22/2023***
Red Fox North	***270 Linear Feet MC-3500***	

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mobilization	1	LS	*$13,500.00*	$13,500
2	Traffic Control	1	LS	*$2,000.00*	$2,000
3	StormTech MC-3500 Installed	6300	CF	*$11.00*	$69,300
4	12" PVC Storm Drain Installed	1	LS	*$4,000.00*	$4,000
5	Surface Restoration (Asphalt)	300	SY	*$100.00*	$30,000
6	Field Cast Pipe-to-Manhole Connections	1	LS	*$4,000.00*	$4,000
7	Utility Conflicts	1	LS	*$12,000.00*	$12,000
		SUBTOTAL			**$134,800**
		CONTINGENCY		20%	$26,960
		TOTAL			**$161,760**

Evan Carroll, P.E.

ESTIMATE BY:

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REVISED BY:

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OPINION OF PROBABLE COST

PROJECT	PROJECT NO.	DATE
Treasure State Acres Drainage Assessment	***1-18132-TO8***	***12/22/2023***
Cougar & Buffalo	***270 Linear Feet MC-3500***	

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	Mobilization	1	LS	*$12,400.00*	$12,400
2	Traffic Control	1	LS	*$2,000.00*	$2,000
3	StormTech MC-3500 Installed	6300	CF	*$11.00*	$69,300
4	12" PVC Storm Drain Installed	1	LS	*$5,000.00*	$5,000
5	Surface Restoration (Asphalt)	300	SY	*$100.00*	$30,000
6	Field Cast Pipe-to-Manhole Connections	1	LS	*$5,000.00*	$5,000
7	Utility Conflicts	1	LS	*$12,000.00*	$12,000
		SUBTOTAL			**$123,700**
		CONTINGENCY		20%	$24,740
		TOTAL			**$148,440**

Evan Carroll, P.E.

ESTIMATE BY:

Jeremiah Theys, P.E.

CHECKED BY:

REVISED BY:

This Opinion of Probable Cost is the opinion of the engineer of the probable construction cost, and is supplied as a guide only. Since the engineer has no control over the costs of labor and materials or over competitive bidding and market conditions, the engineer does not guarantee the accuracy of such opinion as compared to contractor's bids or actual costs to the owner. Estimate is calculated in 2023 dollars.

Appendix C – Existing Stormwater Model Hydrology Outputs

Subbasin ID	Area (ac)	Weighted Runoff Coefficient (C)	Accumulated Precipitation (in)	Total Runoff (in)	Total Runoff Volume (ft^3)
Sub-01	5.57	0.5000	0.47	0.24	4851.445
Sub-02	3.00	0.4700	0.50	0.24	2617.913
Sub-03	3.28	0.4800	0.50	0.24	2861.361
Sub-04	5.92	0.4800	0.51	0.24	5161.099
Sub-05	2.96	0.4800	0.49	0.24	2576.131
Sub-06	1.71	0.5400	0.37	0.20	1238.700
Sub-07	18.15	0.5700	0.44	0.25	16467.279
Sub-08	0.18	0.6500	0.26	0.17	109.699
Sub-09	5.67	0.4800	0.50	0.24	4938.191
Sub-10	1.43	0.5600	0.28	0.16	829.496
Sub-11	0.60	0.6100	0.26	0.16	346.247
Sub-12	5.53	0.4500	0.49	0.22	4418.304
Sub-13	1.38	0.6100	0.33	0.20	998.375
Sub-14	0.21	0.6700	0.26	0.18	140.175
Sub-15	5.82	0.5000	0.52	0.26	5490.242
Sub-16	6.95	0.5100	0.49	0.25	6305.950
Sub-17	0.91	0.5700	0.29	0.17	564.274
Sub-18	0.49	0.5800	0.26	0.15	265.871
Sub-19	0.16	0.7500	0.26	0.20	114.906
Sub-20	12.71	0.3100	0.46	0.14	6460.156
Sub-21	0.27	0.8000	0.26	0.21	203.204
Sub-22	1.42	0.4700	0.51	0.24	1236.324
Sub-23	2.05	0.4800	0.49	0.24	1782.773
Sub-24	6.98	0.6100	0.47	0.29	7352.405
Sub-25	0.59	0.7500	0.31	0.23	493.662
Sub-26	5.17	0.4600	0.49	0.23	4316.757
Sub-27	0.42	0.5900	0.26	0.15	230.872
Sub-28	1.53	0.5700	0.33	0.19	1056.879
Sub-29	6.34	0.4900	0.50	0.25	5757.650
Sub-30	3.27	0.4800	0.49	0.24	2852.016
Sub-31	4.29	0.5200	0.32	0.17	2649.103
Sub-32	22.26	0.4900	0.51	0.25	20197.400
Sub-33	2.97	0.4800	0.49	0.23	2483.755
Sub-34	0.13	0.7000	0.26	0.18	86.097
Sub-35	3.65	0.5200	0.35	0.18	2384.852
Sub-36	0.44	0.6300	0.26	0.16	256.652
					120096.216

Appendix D – Infiltration Rates

Intersection	Percolation Rate (min/in)	Percolation Rate (in/hr)
Bighorn & Red Fox*	21.90	2.74
Bighorn & Cougar*	12.50	4.80
Otter & Red Fox*	31.30	1.92
Kodiak & Red Fox*	17.15	3.50
Kodiak & Cougar*	17.15	3.50
Cayuse & Red Fox*	3.00	20.00
Mustang & Red Fox*	3.00	20.00
Cayuse & Wolverine*	25.00	2.40
Buffalo & Bobcat**	25.00	2.40
Buffalo & Wolverine**	25.00	2.40
Woodchuck**	25.00	2.40
Buffalo & Red Fox**	3.00	20.00
Buffalo & Cougar**	10.10	5.94
Mustang & Bobcat**	25.00	2.40
Mustang & Wolverine**	25.00	2.40
Red Fox (Between Cayuse & Kodiak)**	10.10	5.94
Kodiak & Wolverine**	25.00	2.40
Mineral & Pondera**	21.90	2.74
Mineral & Glacier**	12.50	4.80

*Percolation rates (in min/in) were obtained from RPA report

**Percolation rates were selected or interpolated from nearest intersection value(s)

Appendix E – Existing and Proposed Exhibits

LEGEND	
	EXISTING STORMWATER INFRASTRUCTURE
	DRAINAGE FLOW DIRECTION
	IDENTIFIED DRAINAGE PROBLEM AREAS
	DELINEATED DRAINAGE BASINS

BOBCAT DR
EXISTING 4' ROUND DIAMETER STORM INLET STRUCTURE
EXISTING 3' ROUND DIAMETER STORM INLET STRUCTURE
CP1
NORTH
EXISTING 4' ROUND DIAMETER STORM INLET STRUCTURE
KODIAK RD
CAYUSE RD
BUFFALO RD
EXISTING CONCRETE VALLEY GUTTER
EXISTING 2' DIAMETER STORM INLET STRUCTURE
WOODCHUCK DR
EXISTING 4' ROUND DIAMETER STORM INLET STRUCTURE
WOLVERINE DR
EXISTING 2.5' DIAMETER ROUND STORM INLET STRUCTURE
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURES
SNOWSHOE DR
EXTENTS OF DELINEATED DRAINAGE BASIN (TYP.), SEE SHEET 2
BEAVERHEAD RD
EXISTING 4' ROUND DIAMETER STORM INLET STRUCTURE
CP99
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURES
EXISTING 2.5' DIAMETER CURB STORM INLET STRUCTURES
EXISTING 2.5' DIAMETER STORM STRUCTURE WITH SOLID LID
PORCUPINE DR
PONDERA RD
BIGHORN RD
OTTER RD
KODIAK RD
TREASURE STATE ACRES PARK
CAYUSE RD
MUSTANG RD
BADGER DR
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURES
EXISTING CONCRETE VALLEY GUTTER
PRAIRIE DR
MINERAL RD
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURES
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURES
RED FOX DR
RED FOX DR
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURE
CP2
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURES
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURES
EXISTING 4' DIAMETER ROUND STORM INLET STRUCTURES
GLACIER RD
EXISTING CONCRETE VALLEY GUTTER
COUGAR DR
COUGAR DR
EXISTING DRAINAGE SWALE TO ROADSIDE DITCH
EXISTING CURB INLET
APPROXIMATE LOCATION OF CULVERT TO ROADSIDE DITCH
ROADSIDE DITCH
I-15
I-15

Figure 1
Treasure State Acres Existing Site Plan

LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

GreatWest ENGINEERING

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LEGEND

———	DELINEATED DRAINAGE BASINS

DRAINAGE BASINS

BASIN ID	BASIN AREA (AC)
1	5.57
2	3.00
3	3.28
4	5.92
5	2.96
6	1.71
7	18.15
8	0.18
9	5.67
10	1.43
11	0.60
12	5.53
13	1.38
14	0.21
15	5.82
16	6.95
17	0.91
18	0.49
19	0.16
20	12.71
21	0.27
22	1.42
23	2.05
24	6.98
25	0.59
26	5.17
27	0.42
28	1.53
29	6.34
30	3.27
31	4.29
32	22.26
33	2.97
34	0.13
35	3.65
36	0.44

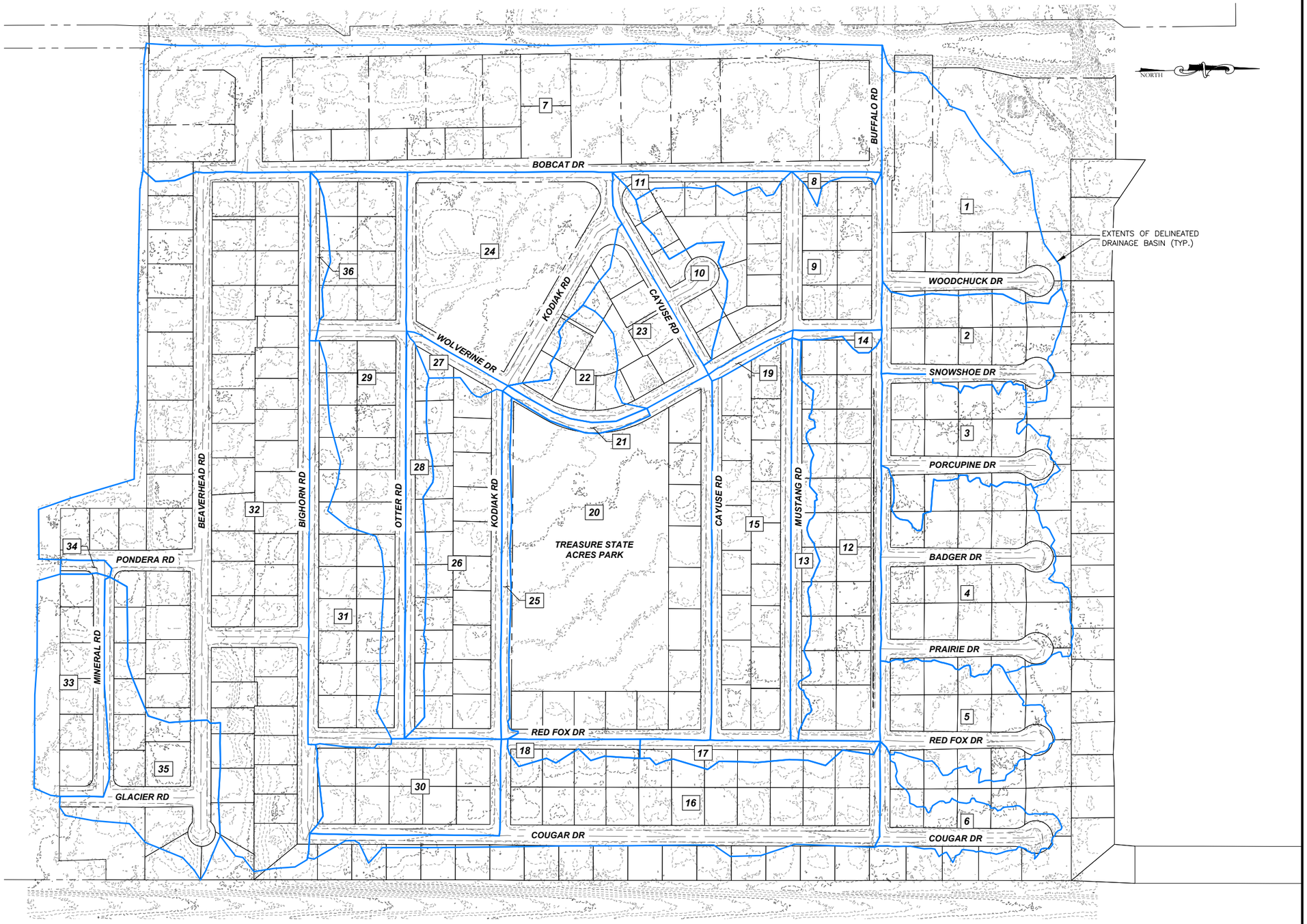

Figure 2
Treasure State Acres Drainage Basins

LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

GreatWest ENGINEERING

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LEGEND	
◎	EXISTING STORMWATER INFRASTRUCTURE
~→	DRAINAGE FLOW DIRECTION
———	DELINEATED DRAINAGE BASINS
———	PROPOSED STORMTECH MC-3500 CHAMBERS

NOTES:

1. PLACEMENT OF PROPOSED UNDERGROUND STORM CHAMBERS IS PRELIMINARY AND SUBJECT TO CHANGE.
2. OVERALL FOOTPRINT SHOWS WIDTH OF CHAMBER PLUS ADDITIONAL DRAIN ROCK SURROUNDING STRUCTURES FOR ADDITIONAL CAPACITY, APPROXIMATELY 8.42 FEET TOTAL WIDTH. SEE SHEET 10 FOR DETAILS.
3. PROPOSED STRUCTURES WERE SIZED TO RETAIN THE ENTIRE VOLUME OF THE 2-YEAR, 24-HOUR STORM. THE RATIONAL METHOD WAS USED TO DETERMINE RUNOFF VOLUMES FOR EACH DELINEATED DRAINAGE BASIN.
4. PRELIMINARY PLACEMENT OF STORM INFILTRATION CHAMBERS IS INTENDED TO TARGET AND ALLEVIATE FLOODING AND PONDING AT PREVIOUSLY IDENTIFIED PROBLEM AREAS. PLACEMENT WAS DETERMINED SUCH THAT EXISTING STORM STRUCTURES IN PROBLEM AREAS COULD BE RETAINED AND ATTACHED TO THE NEW CHAMBERS FOR ADDITIONAL STORAGE AND INFILTRATION CAPACITY.

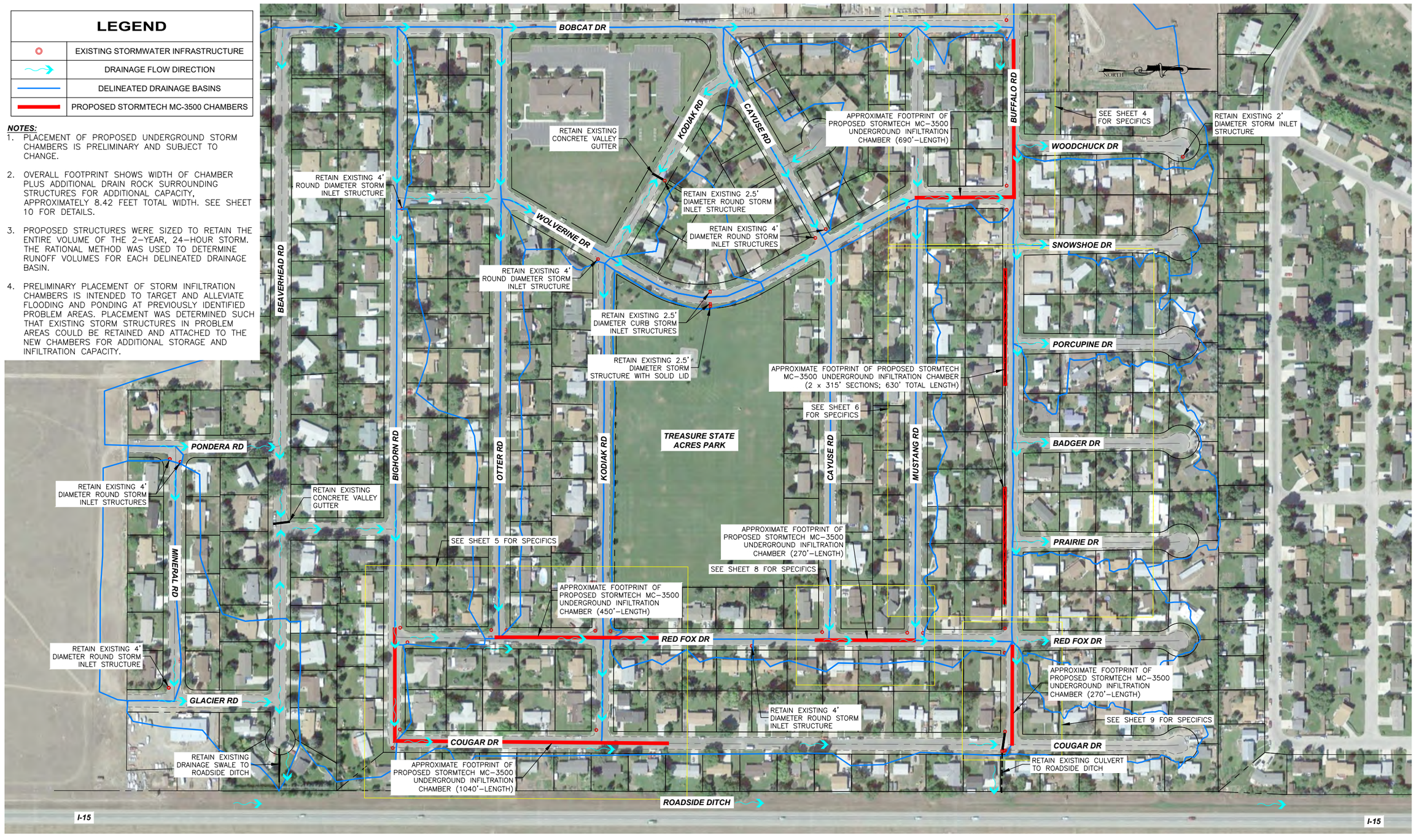

Figure 3
Treasure State Acres
Proposed Drainage Improvements

LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

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LEGEND

	EXISTING STORMWATER INFRASTRUCTURE
	DRAINAGE FLOW DIRECTION
	IDENTIFIED DRAINAGE PROBLEM AREAS
	DELINEATED DRAINAGE BASINS
	PROPOSED STORMTECH MC-3500 CHAMBERS

HYDROLOGY SUMMARY

SUBBASIN	AREA (AC)	RUNOFF (FT^3)
7	18.15	16467.28
8	0.18	109.70
11	0.60	346.25
19	0.16	114.91
TOTAL =		17038.14

STRUCTURE SUMMARY

MC-3500 LENGTH (FT)	UNIT STORAGE (FT^3/FT)	STORAGE (FT^3)
690	23.33	16097.70
EXISTING STRUCTURE STORAGE =		1544.34
TOTAL =		17642.04

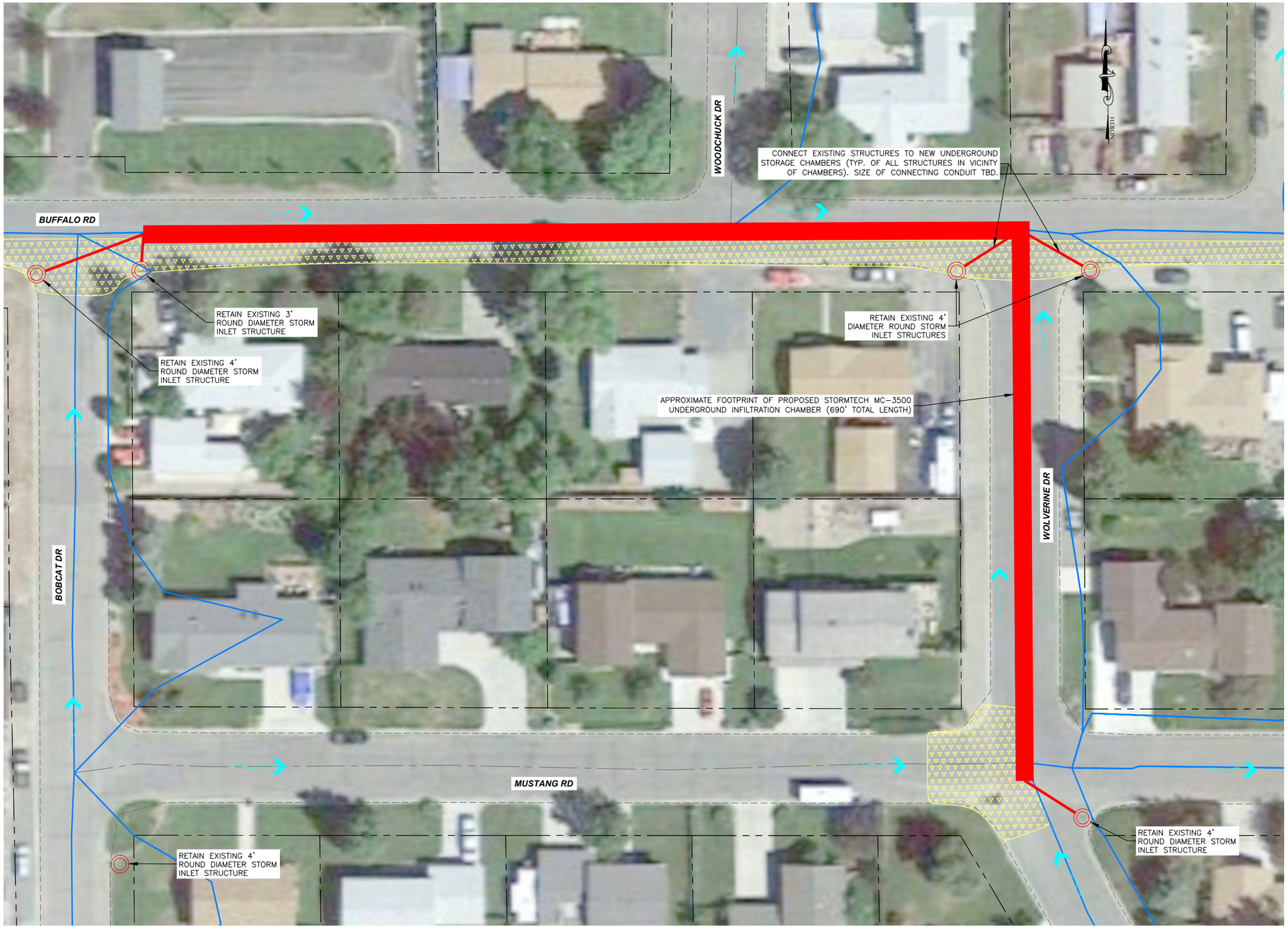

Figure 4
Treasure State Acres
Buffalo & Wolverine Improvements

LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

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LEGEND

◎	EXISTING STORMWATER INFRASTRUCTURE
~→	DRAINAGE FLOW DIRECTION
▨	IDENTIFIED DRAINAGE PROBLEM AREAS
—	DELINEATED DRAINAGE BASINS
▬	PROPOSED STORMTECH MC-3500 CHAMBERS

BIGHORN & COUGAR: HYDROLOGY SUMMARY

SUBBASIN	AREA (AC)	RUNOFF (FT^3)
30	3.27	2852.02
31	4.29	2649.10
32	22.26	20197.40
36	0.44	256.65
	TOTAL =	25955.17

RED FOX SOUTH: HYDROLOGY SUMMARY

SUBBASIN	AREA (AC)	RUNOFF (FT^3)
25	0.59	493.66
26	5.17	4316.76
27	0.42	230.87
28	1.53	1056.88
29	6.34	5757.65
	TOTAL =	11855.82

BIGHORN & COUGAR: STRUCTURE SUMMARY

MC-3500 LENGTH (FT)	UNIT STORAGE (FT^3/FT)	STORAGE (FT^3)
1040	23.33	24263.20
EXISTING STRUCTURE STORAGE =		1971.26
TOTAL =		26234.46

RED FOX SOUTH: STRUCTURE SUMMARY

MC-3500 LENGTH (FT)	UNIT STORAGE (FT^3/FT)	STORAGE (FT^3)
450	23.33	10498.50
EXISTING STRUCTURE STORAGE =		1568.98
TOTAL =		12067.48

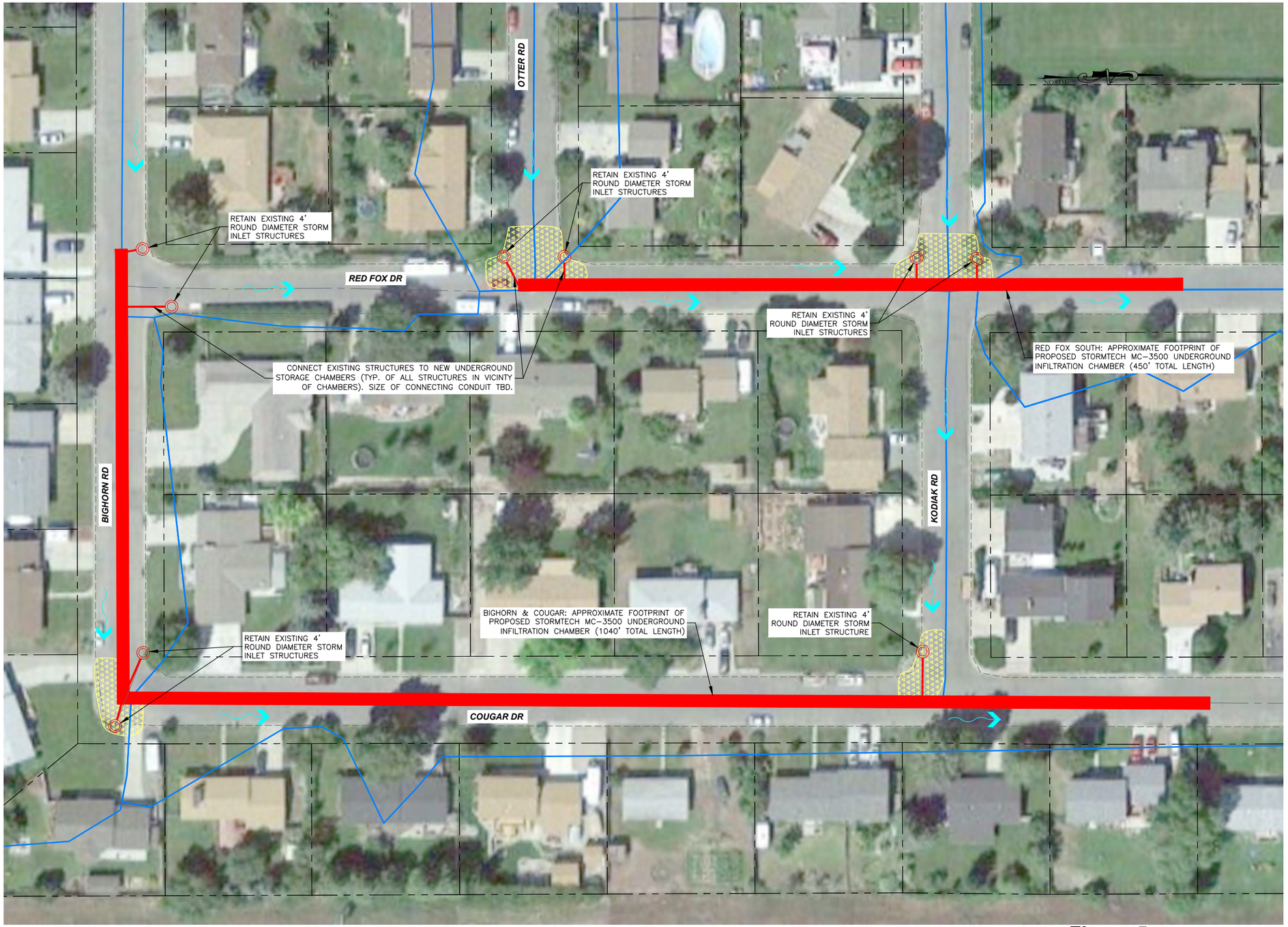

Figure 5
Treasure State Acres
Bighorn & Cougar & Red Fox South Improvements
LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

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LEGEND

	EXISTING STORMWATER INFRASTRUCTURE
	DRAINAGE FLOW DIRECTION
	IDENTIFIED DRAINAGE PROBLEM AREAS
	DELINEATED DRAINAGE BASINS
	PROPOSED STORMTECH MC-3500 CHAMBERS

HYDROLOGY SUMMARY

SUBBASIN	*AREA (AC)*	*RUNOFF (FT^3)*
9	5.67	4938.19
10	1.43	829.50
12	5.53	4418.30
13	1.38	998.38
14	0.21	140.18
15	5.82	5490.24
TOTAL =		16814.79

STRUCTURE SUMMARY

MC-3500 LENGTH (FT)	*UNIT STORAGE (FT^3/FT)*	*STORAGE (FT^3)*
630	23.33	14697.90
EXISTING STRUCTURE STORAGE =		2139.87
OPEN DITCH & CULVERT STORAGE =		550.00
TOTAL =		17387.77

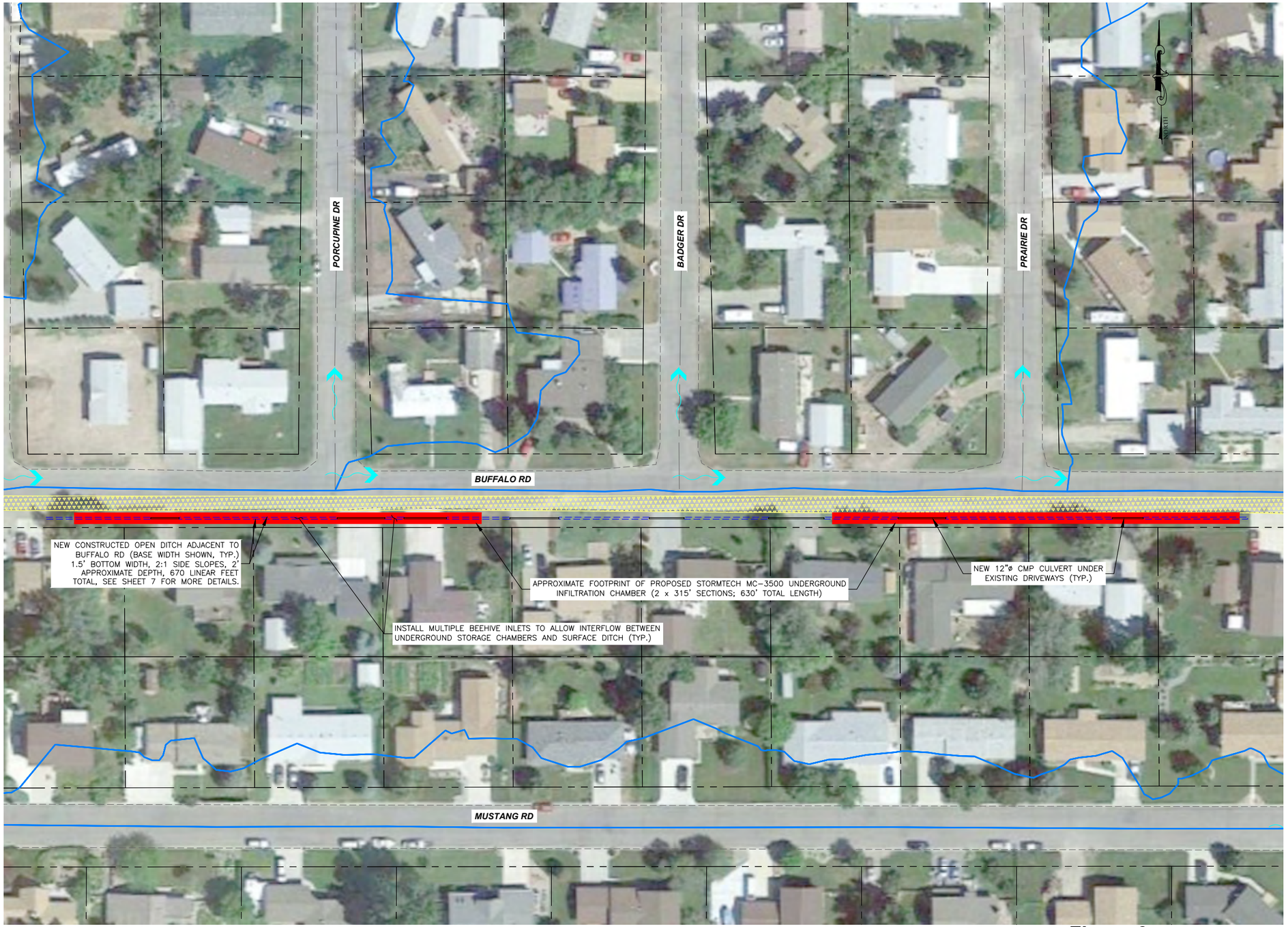

Figure 6
Treasure State Acres
Buffalo - Wolverine To Red Fox Improvements
LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

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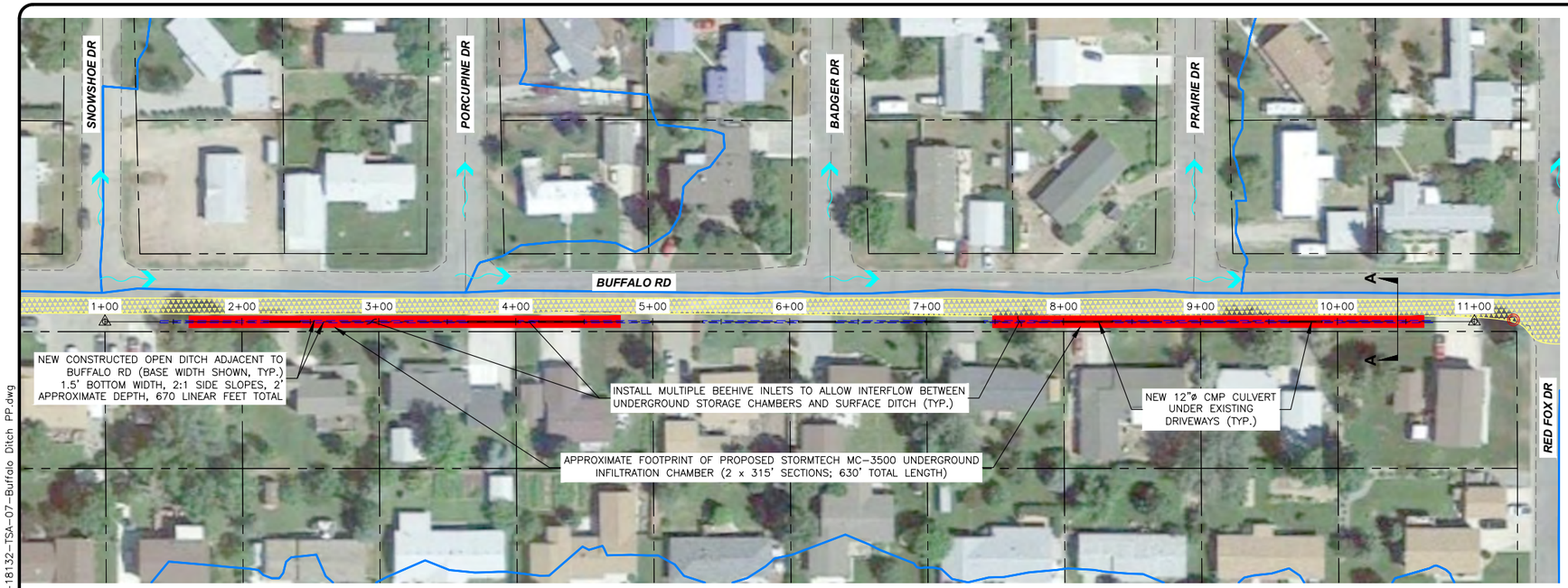
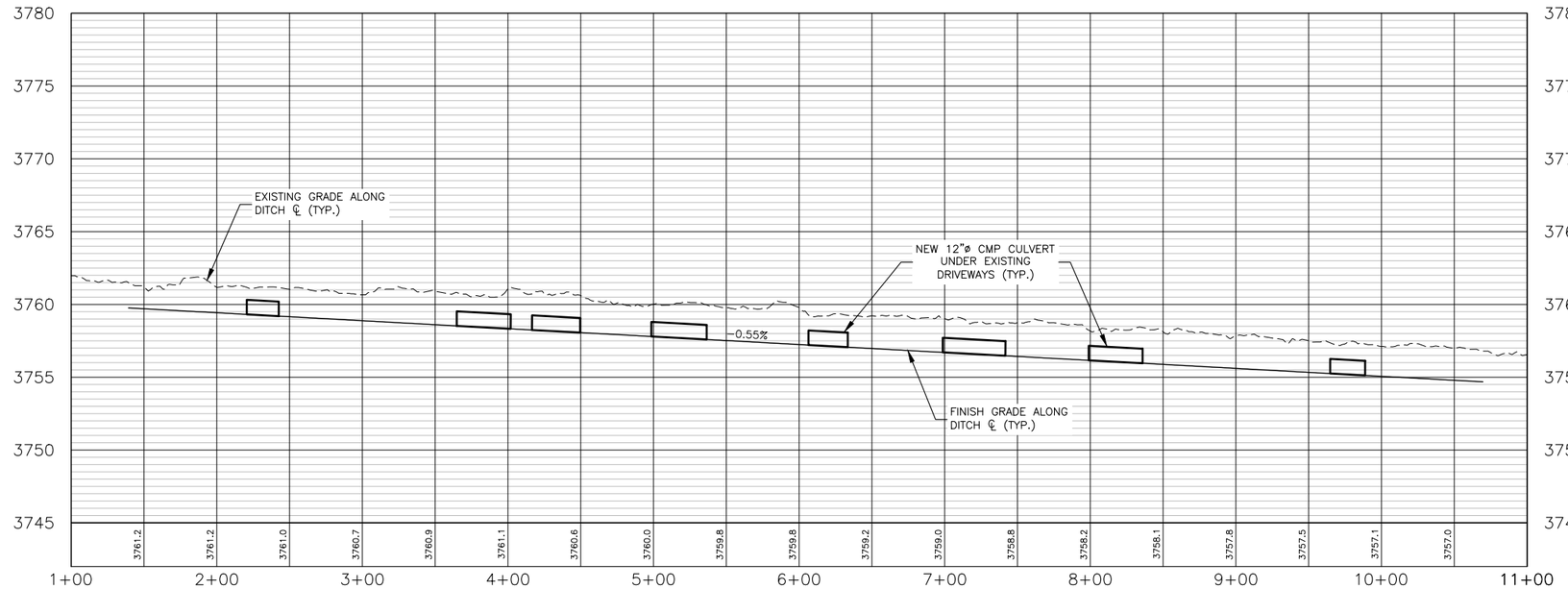


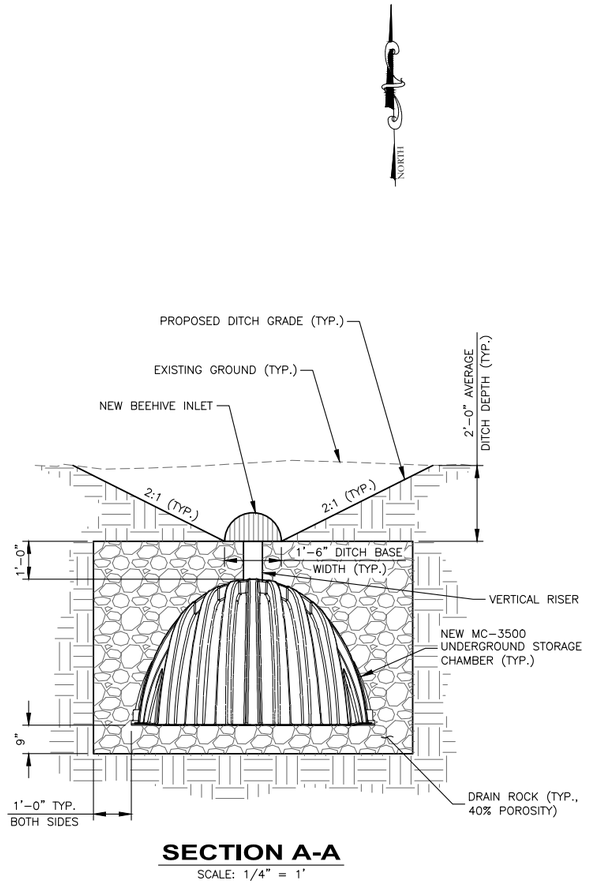
PROFILE VIEW OF BUFFALO DITCH - STA. 1+00 TO STA. 11+00

SCALE: 1" = 100'



PROFILE VIEW OF BUFFALO DITCH - STA. 1+00 TO STA. 11+00

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 10'



SECTION A-A

SCALE: 1/4" = 1'

Figure 7
Treasure State Acres
Buffalo Ditch Plan & Profile

LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

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LEGEND

	EXISTING STORMWATER INFRASTRUCTURE
	DRAINAGE FLOW DIRECTION
	IDENTIFIED DRAINAGE PROBLEM AREAS
	DELINEATED DRAINAGE BASINS
	PROPOSED STORMTECH MC-3500 CHAMBERS

HYDROLOGY SUMMARY

SUBBASIN	*AREA (AC)*	*RUNOFF (FT^3)*
20	12.71	6460.16
	TOTAL =	6460.16

STRUCTURE SUMMARY

MC-3500 LENGTH (FT)	*UNIT STORAGE (FT^3/FT)*	*STORAGE (FT^3)*
270	23.33	6299.10
	EXISTING STRUCTURE STORAGE =	262.18
	TOTAL =	6561.28

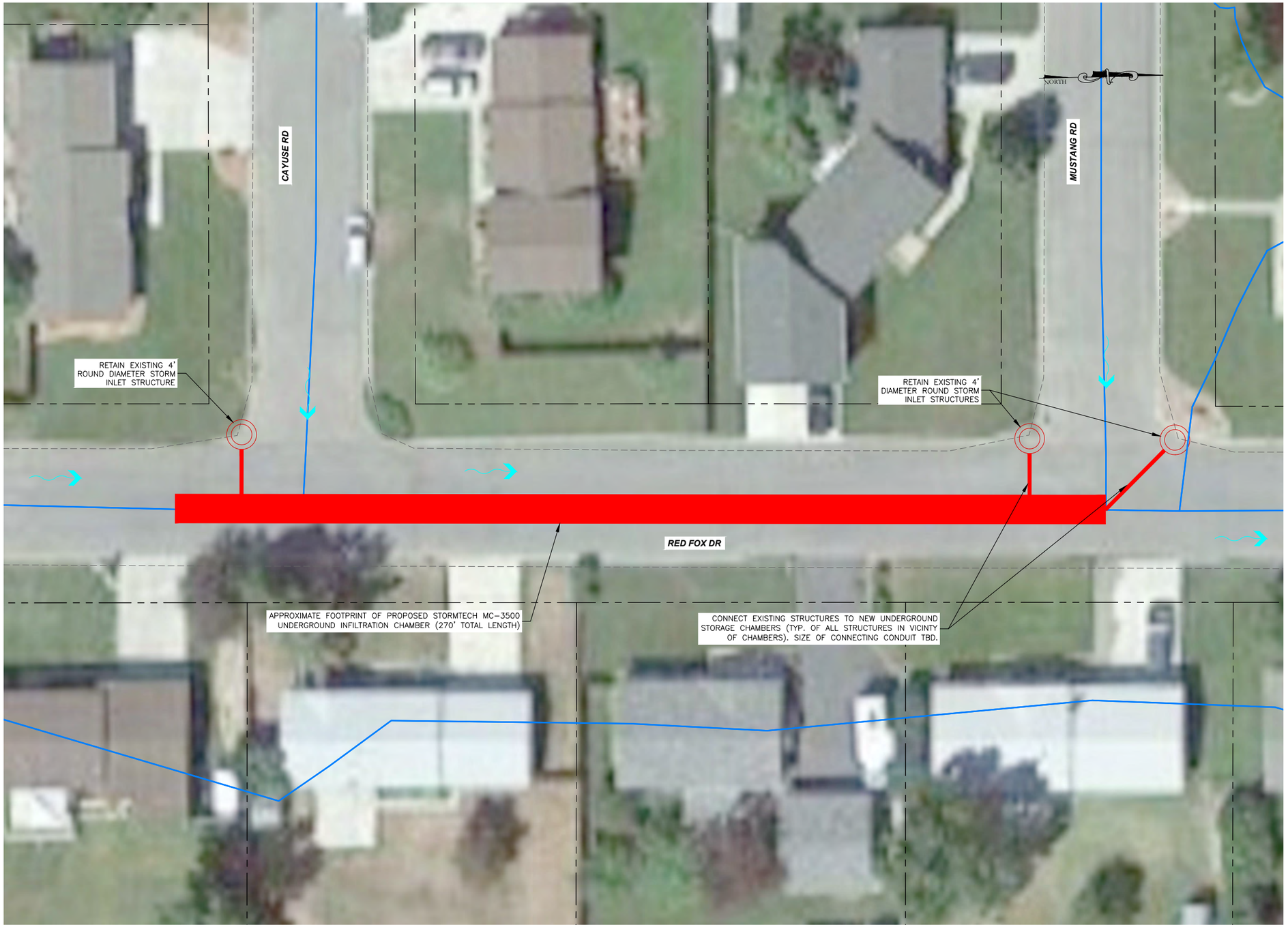

Figure 8
Treasure State Acres
Red Fox North Improvements

LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

GreatWest ENGINEERING

LEGEND

	EXISTING STORMWATER INFRASTRUCTURE
	DRAINAGE FLOW DIRECTION
	IDENTIFIED DRAINAGE PROBLEM AREAS
	DELINEATED DRAINAGE BASINS
	PROPOSED STORMTECH MC-3500 CHAMBERS

HYDROLOGY SUMMARY

SUBBASIN	*AREA (AC)*	*RUNOFF (FT^3)*
16	6.95	6305.95
17	0.91	564.27
18	0.49	265.87
	TOTAL =	7136.09

STRUCTURE SUMMARY

MC-3500 LENGTH (FT)	*UNIT STORAGE (FT^3/FT)*	*STORAGE (FT^3)*
270	23.33	6299.10
	EXISTING STRUCTURE STORAGE =	1122.60
	TOTAL =	7421.70

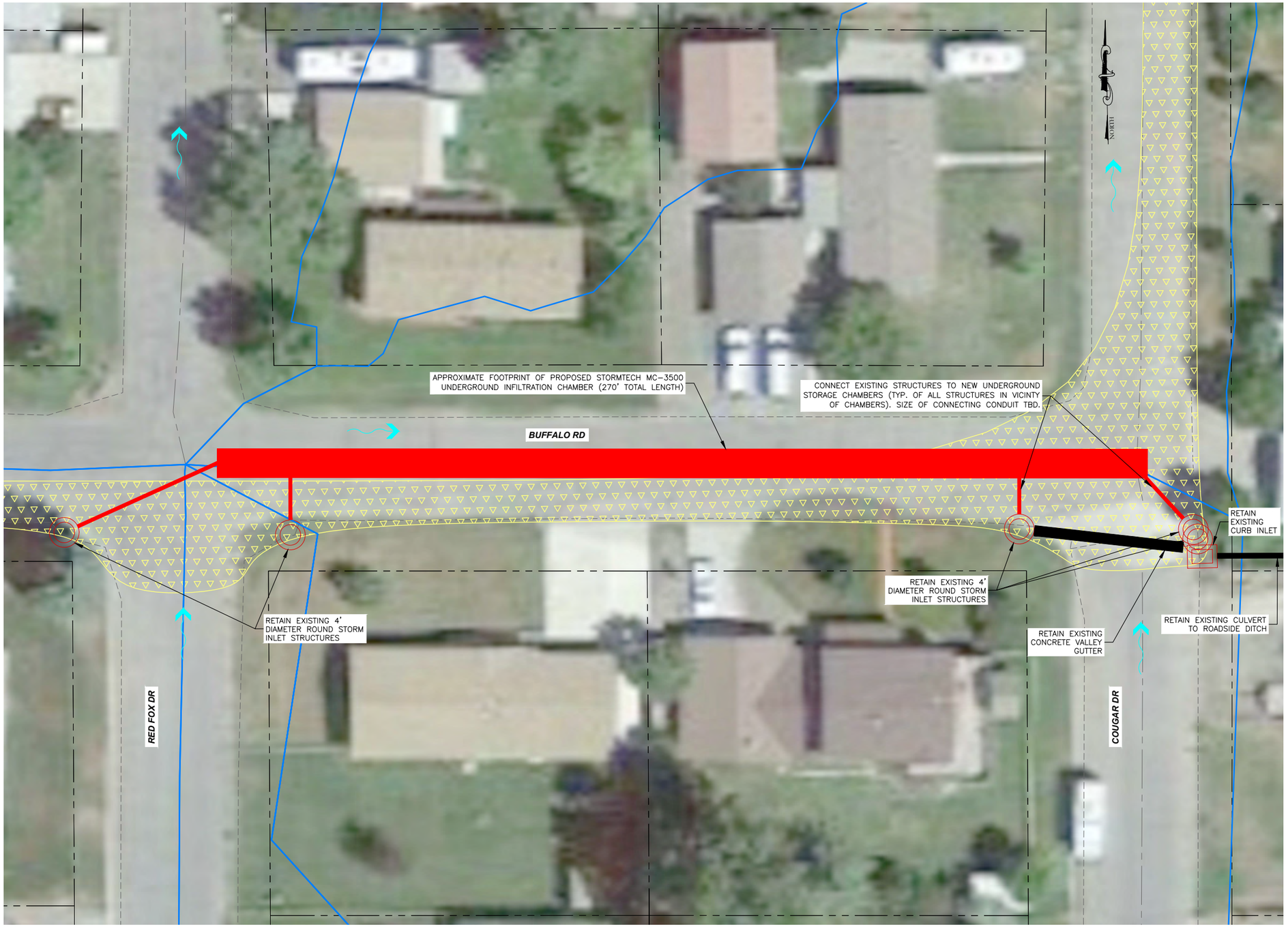

Figure 9
Treasure State Acres
Buffalo & Cougar Improvements

LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

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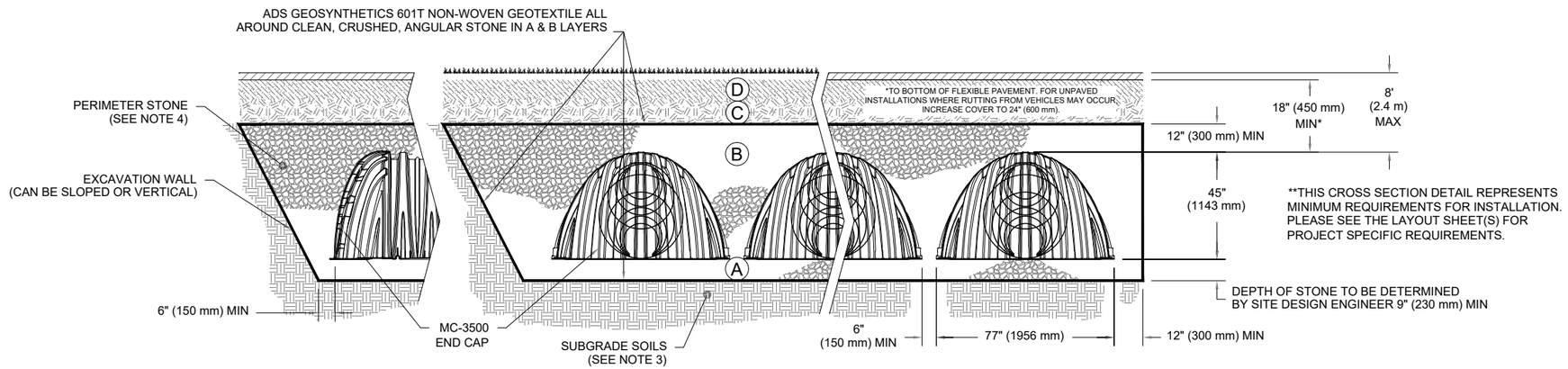
ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION		*DESCRIPTION*	*AASHTO MATERIAL* CLASSIFICATIONS	*COMPACTION / DENSITY REQUIREMENT*
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



*FOR COVER DEPTHS GREATER THAN 8.0' (2.4 m) PLEASE CONTACT ADS

NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

NOTE: ALL DETAILS, NOTES, TEXT, AND SPECIFICATIONS SHOWN ON THIS SHEET HAVE BEEN SUPPLIED DIRECTLY FROM STORMTECH.

GreatWest ENGINEERING

Figure 10
Treasure State Acres
StormTech MC-3500 Details

LEWIS AND CLARK COUNTY
TREASURE STATE ACRES DRAINAGE ASSESSMENT

Appendix F – StormTech MC-3500 Product Submittal

StormTech® MC-3500 Chamber

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots, thus maximizing land usage for private (commercial) and public applications. StormTech chambers can also be used in conjunction with Green Infrastructure, thus enhancing the performance and extending the service life of these practices.

Nominal Chamber Specifications
(not to scale)

Size (L x W x H)
90” x 77” x 45”
2286 mm x 1956 mm x 1143 mm

Chamber Storage
109.9 ft³ (3.11 m³)

Min. Installed Storage*
175.0 ft³ (4.96 m³)

Weight
134 lbs (60.8 kg)

Shipping
15 chambers/pallet
7 end caps/pallet
7 pallets/truck

*Assumes a minimum of 12” (300 mm) of stone above, 9” (230 mm) of stone below chambers, 6” (150 mm) of stone between chambers/ end caps and 40% stone porosity.

Nominal End Cap Specifications
(not to scale)

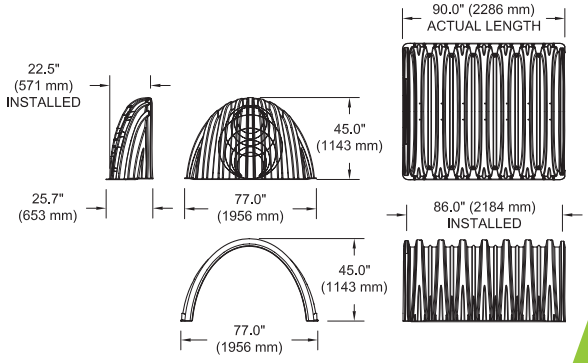
Size (L x W x H)
26.5” x 71” x 45.1”
673 mm x 1803 mm x 1145 mm

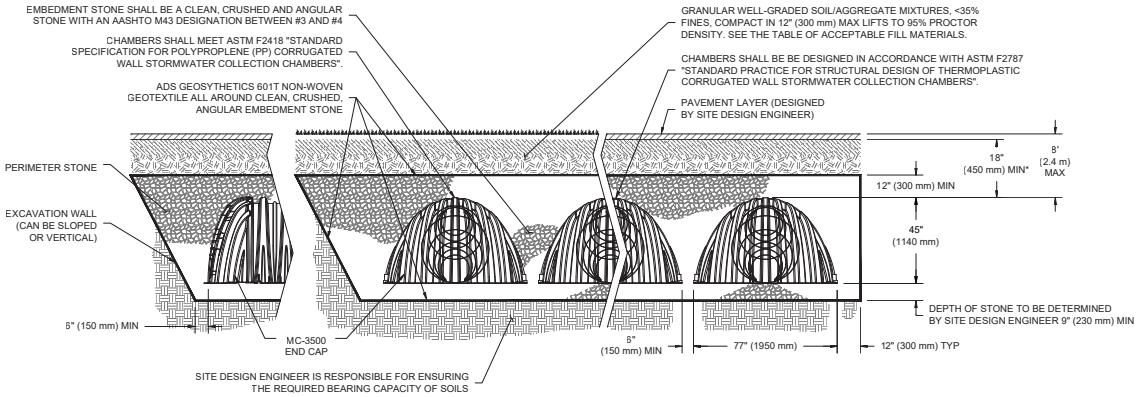
End Cap Storage
14.9 ft³ (0.42 m³)

Min. Installed Storage*
45.1 ft³ (1.28 m³)

Weight
49 lbs (22.2 kg)

*Assumes a minimum of 12” (300 mm) of stone above, 9” (230 mm) of stone below, 6” (150 mm) of stone perimeter, 6” (150 mm) of stone between chambers/ end caps and 40% stone porosity.





*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 24" (600 mm).

ADS StormTech™

StormTech MC-3500 Specifications

Storage Volume Per Chamber

	Bare Chamber Storage ft³ (m³)	Chamber and Stone Foundation Depth in. (mm)			
		9 in (230 mm)	12 in (300 mm)	15 in (375 mm)	18 in (450 mm)
Chamber	109.9 (3.11)	175.0 (4.96)	179.9 (5.09)	184.9 (5.24)	189.9 (5.38)
End Cap	14.9 (0.42)	45.1 (1.28)	46.6 (1.32)	48.3 (1.37)	49.9 (1.41)

Note: Assumes 6" (150 mm) row spacing, 40% stone porosity, 12" (300 mm) stone above and includes the bare chamber/end cap volume.

Amount of Stone Per Chamber

English Tons (yds³)	Stone Foundation Depth			
	9 in	12 in	15 in	18 in
Chamber	8.5 (6.0)	9.1 (6.5)	9.7 (6.9)	10.4 (7.4)
End Cap	3.9 (2.8)	4.1 (2.9)	4.3 (3.1)	4.5 (3.2)
Metric Kilograms (m³)	**230 mm**	**300 mm**	**375 mm**	**450 mm**
Chamber	7711 (4.6)	8255 (5.0)	8800 (5.3)	9435 (5.7)
End Cap	3538 (2.1)	3719 (2.2)	3901 (2.4)	4082 (2.5)

Note: Assumes 12" (300 mm) of stone above and 6" (150 mm) row spacing and 6" (150 mm) of perimeter stone in front of end caps.

Volume Excavation Per Chamber yd³ (m³)

	Stone Foundation Depth			
	9 in (230 mm)	12 in (300 mm)	15 in (375mm)	18 in (450 mm)
Chamber	11.9 (9.1)	12.4 (9.5)	12.8 (9.8)	13.3 (10.2)
End Cap	4.0 (3.1)	4.1 (3.3)	4.3 (3.3)	4.4 (3.4)

Note: Assumes 6" (150 mm) of separation between chamber rows and 24" (600 mm) of cover. The volume of excavation will vary as depth of cover increases.

ADS StormTech products, manufactured in accordance with ASTM F2418 or ASTMF2922, comply with all requirements in the Build America, Buy America (BABA) Act.

Working on a project?
Visit us at adspipe.com/stormtech and utilize the Design Tool

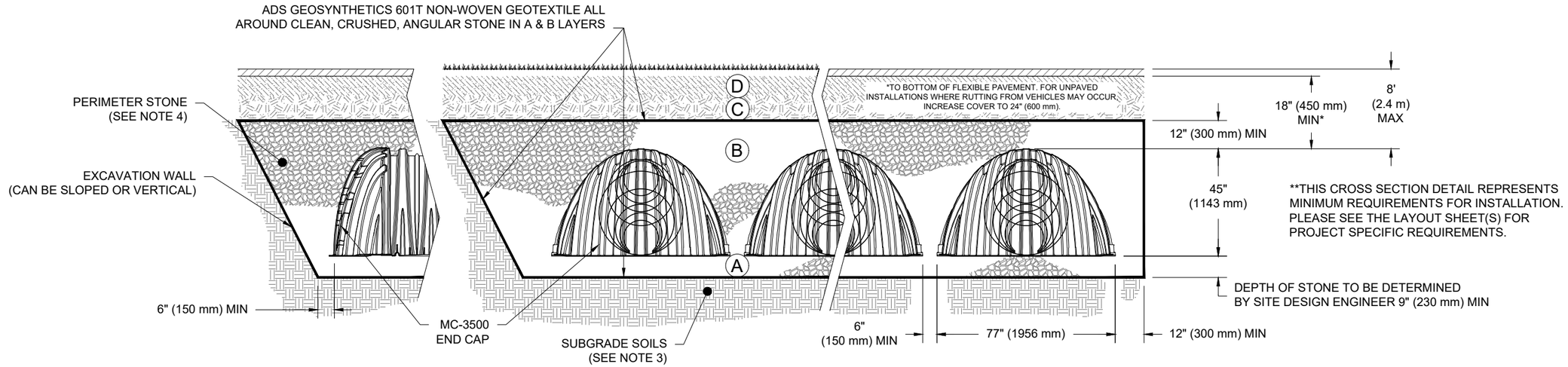
ADS StormTech™

adspipe.com
800-821-6710

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



*FOR COVER DEPTHS GREATER THAN 8.0' (2.4 m) PLEASE CONTACT ADS

NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

MC-3500

STANDARD CROSS SECTION

DATE: 8/03/22 | DRAWN: KLJ | PROJECT #: | CHECKED: KLJ

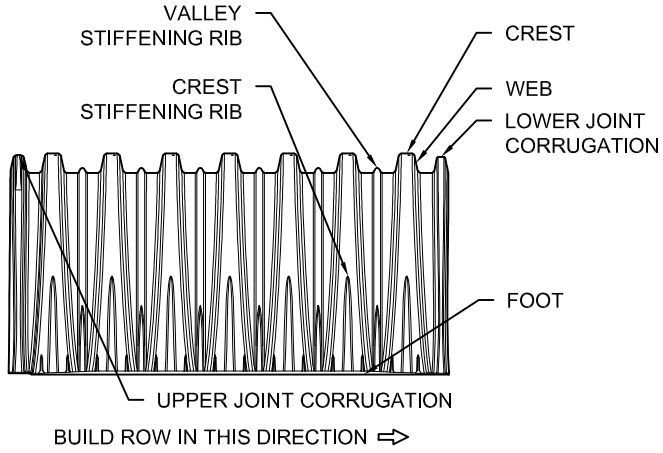
DATE	DESCRIPTION	DRWN	CHKD

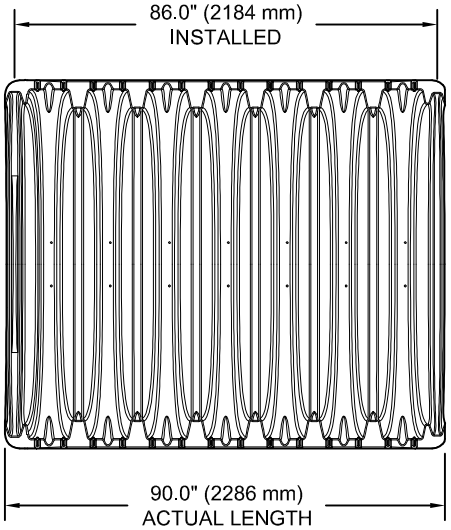
StormTech®
Chamber System
888-892-2694 | WWW.STORMTECH.COM

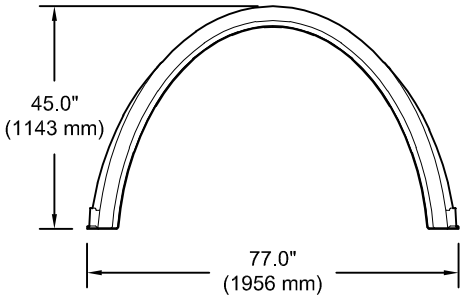
ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026

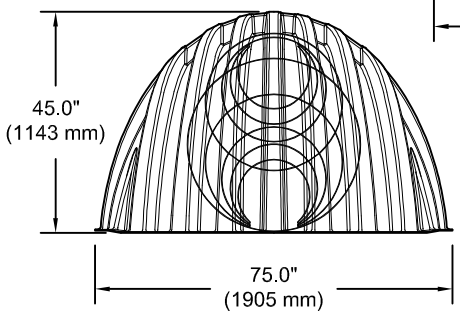
MC-3500 TECHNICAL SPECIFICATION

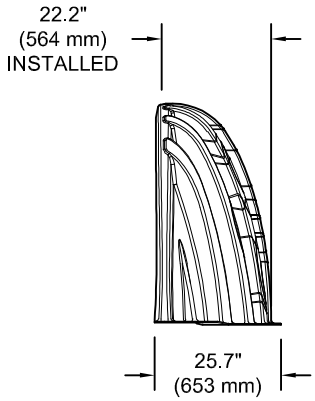
NTS











NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

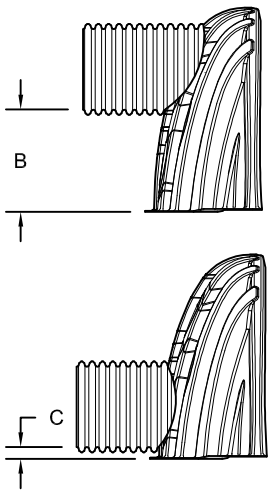
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" (152 mm) STONE BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

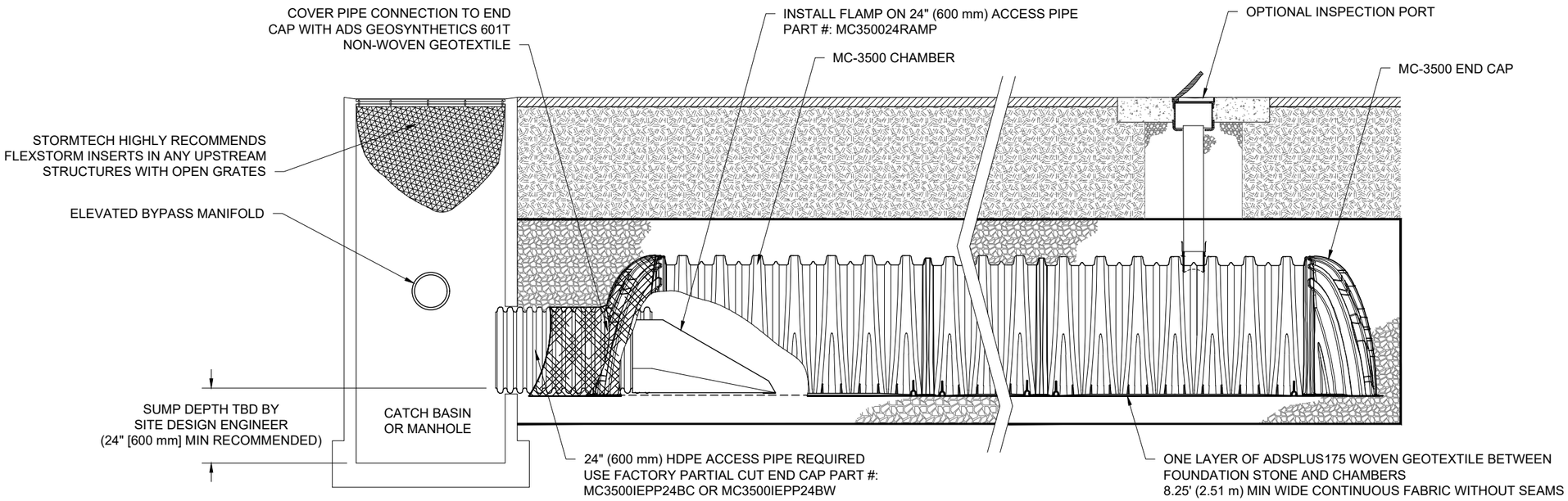
PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PARTIAL CUT INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.



MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

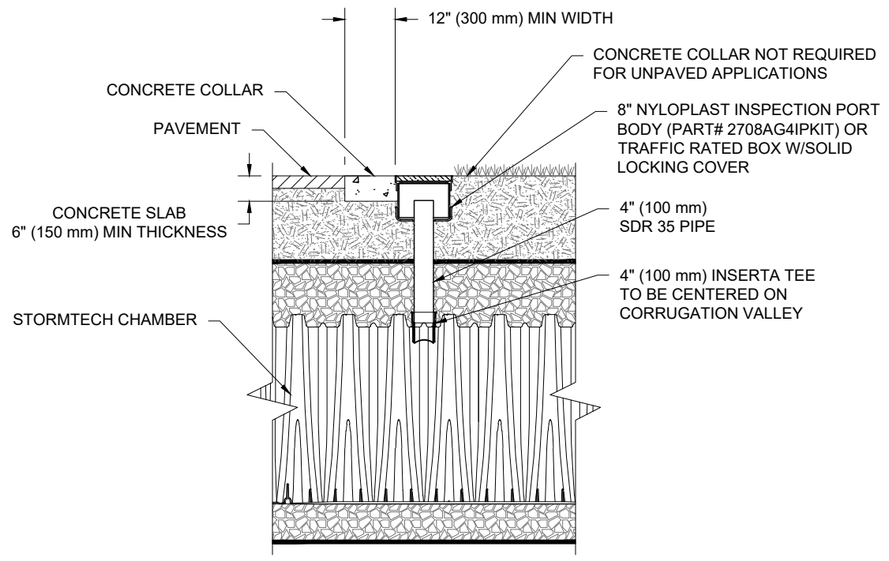
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)
NTS

MC-3500
ISOLATOR ROW PLUS DETAILS
DATE: 8/03/22 | DRAWN: KLJ | PROJECT #: | CHECKED: KLJ

DATE	DRWN	CHKD	DESCRIPTION

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

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4640 TRUEMAN BLVD
HILLIARD, OH 43026

Isolator® Row Plus
O&M Manual

ADS StormTech™

The Isolator® Row Plus

Introduction

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row Plus is a technique to inexpensively enhance Total Suspended Solids (TSS) and Total Phosphorus (TP) removal with easy access for inspection and maintenance.

The Isolator Row Plus

The Isolator Row Plus is a row of StormTech chambers, either SC-160, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-7200 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for sediment settling and filtration as stormwater rises in the Isolator Row Plus and passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC- 310-3 and SC-740 models) allow stormwater to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row Plus protecting the adjacent stone and chambers storage areas from sediment accumulation.

ADS geotextile fabric is placed between the stone and the Isolator Row Plus chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the chamber's sidewall. The non-woven fabric is not required over the SC-160, DC-780, MC-3500 or MC-7200 models as these chambers do not have perforated side walls.

The Isolator Row Plus is designed to capture the "first flush" runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole provides access to the Isolator Row Plus and includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row Plus bypass through a manifold to the other chambers. This is achieved with an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row Plus row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row Plus. After Stormwater flows through the Isolator Row Plus and into the rest of the chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

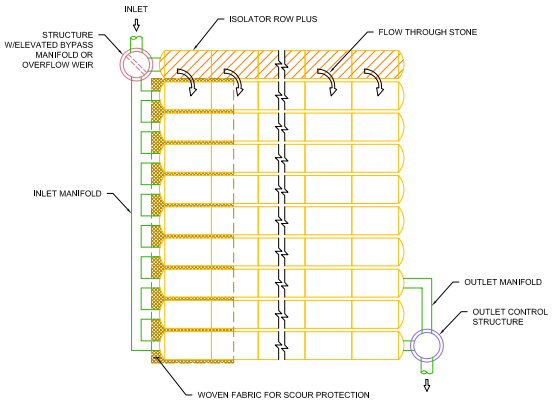
The Isolator Row FLAMP™ (patent pending) is a flared end ramp apparatus attached to the inlet pipe on the inside of the chamber end cap. The FLAMP provides a smooth transition from pipe invert to fabric bottom. It is configured to improve chamber function performance by enhancing outflow of solid debris that would otherwise collect at the chamber's end. It also serves to improve the fluid and solid flow into the access pipe during maintenance and cleaning and to guide cleaning and inspection equipment back into the inlet pipe when complete.

The Isolator Row Plus may be part of a treatment train system. The treatment train design and pretreatment device selection by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, StormTech recommend using the Isolator Row Plus to minimize maintenance requirements and maintenance costs.

Note: *See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row Plus.*

Looking down the Isolator Row PLUS from the manhole opening, ADS PLUS Fabric is shown between the chamber and stone base.

StormTech Isolator Row PLUS with Overflow Spillway (not to scale)



Isolator Row Plus Inspection/Maintenance

Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row Plus should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

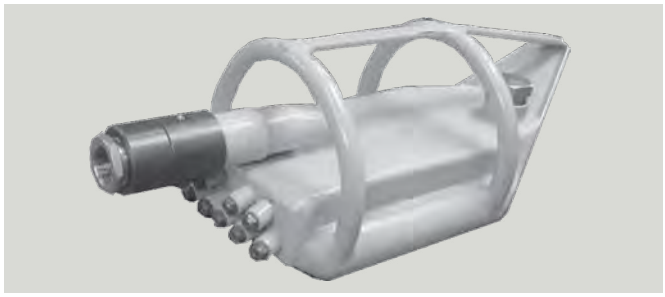
The Isolator Row Plus incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row Plus, clean-out should be performed.

Maintenance

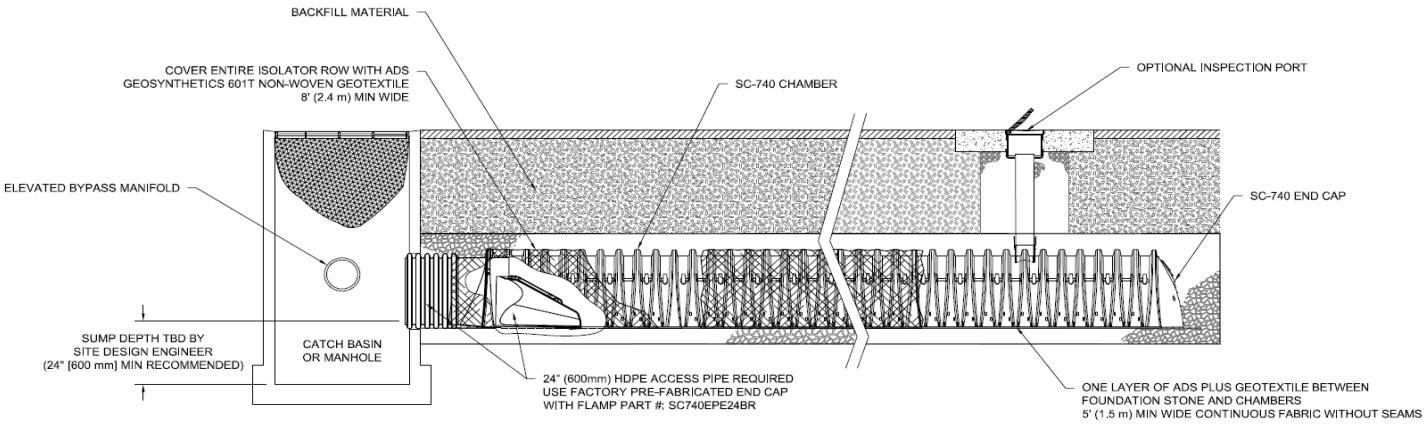
The Isolator Row Plus was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row Plus while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row Plus lengths up to 200' (61 m). **The JetVac process shall only be performed on StormTech Isolator Row Plus that have ADS Plus Fabric (as specified by StormTech) over their angular base stone.**



StormTech Isolator Row PLUS (*not to scale*)

Note: *Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-7200 chamber models and is not required over the entire Isolator Row PLUS.*



Isolator Row Plus Step By Step Maintenance Procedures

Step 1

Inspect Isolator Row Plus for sediment.

A) Inspection ports (if present)
- i. Remove lid from floor box frame
- ii. Remove cap from inspection riser
- iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
- iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.

B) All Isolator Row Plus
- i. Remove cover from manhole at upstream end of Isolator Row Plus
- ii. Using a flashlight, inspect down Isolator Row Plus through outlet pipe
  1. Mirrors on poles or cameras may be used to avoid a confined space entry
  2. Follow OSHA regulations for confined space entry if entering manhole
- iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2.
  If not, proceed to Step 3.

Step 2

Clean out Isolator Row Plus using the JetVac process.

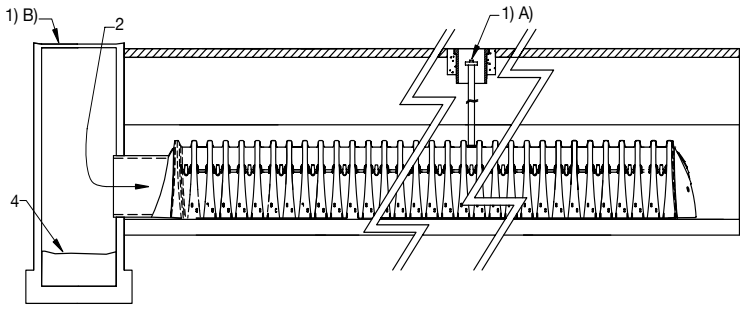
A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
B) Apply multiple passes of JetVac until backflush water is clean
C) Vacuum manhole sump as required

Step 3

Replace all caps, lids and covers, record observations and actions.

Step 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



Sample Maintenance Log

Date	Stadia Rod Readings		Sedi-ment Depth (1)–(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row PLUS, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

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StormTech® Installation Guide
MC-3500 & MC-4500 Chamber

StormTech
Installation Video

Required Materials and Equipment List

- Acceptable fill materials per Table 1
- ADS Plus and non-woven geotextile fabrics
- StormTech solid end caps, pre-cored and pre-fabricated end caps
- StormTech chambers, manifolds and fittings

Note: MC-3500 chamber pallets are 77" x 90" (2.0 m x 2.3 m) and weigh about 2010 lbs. (912 kg) and MC-4500 pallets are 100" x 52" (2.5 m x 1.3 m) and weigh about 840 lbs. (381 kg). Unloading chambers requires 72" (1.8 m) (min.) forks and/or tie downs (straps, chains, etc).

Important Notes:

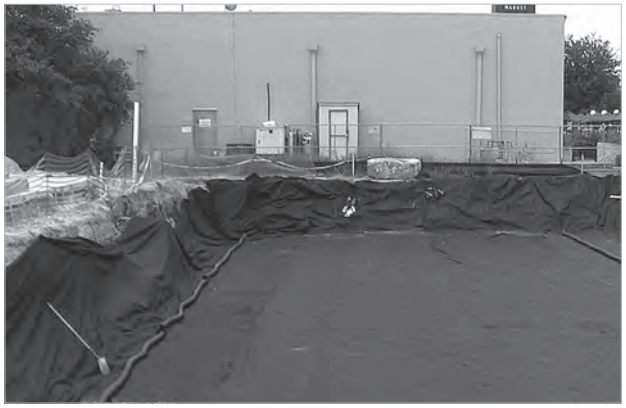
A. This installation guide provides the minimum requirements for proper installation of chambers. Nonadherence to this guide may result in damage to chambers during installation. Replacement of damaged chambers during or after backfilling is costly and very time consuming. It is recommended that all installers are familiar with this guide, and that the contractor inspects the chambers for distortion, damage and joint integrity as work progresses.

B. Use of a dozer to push embedment stone between the rows of chambers may cause damage to chambers and is not an acceptable backfill method. Any chambers damaged by using the "dump and push" method are not covered under the StormTech standard warranty.

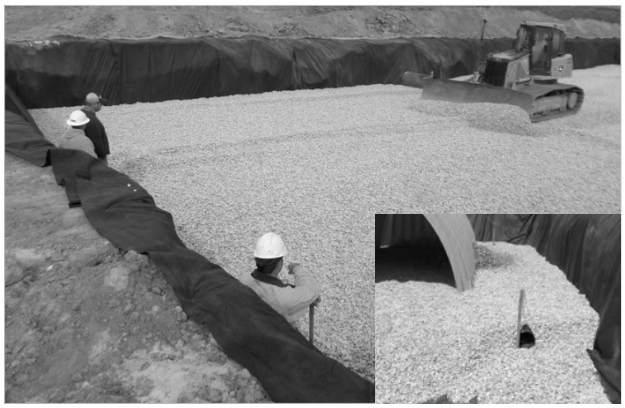
C. Care should be taken in the handling of chambers and end caps. End caps must be stored standing upright. Avoid dropping, prying or excessive force on chambers during removal from pallet and initial placement.

Requirements for System Installation

Excavate bed and prepare subgrade per engineer's plans. Plans and specifications should include Best Management Practices (BMPs) to deter contamination of open pits during construction.



Place non-woven geotextile over prepared soils and up excavation walls.



Place clean, crushed, angular stone foundation 9" (230 mm) min. Install underdrains if required. Compact to achieve a flat surface.

Manifold, Scour Fabric and Chamber Assembly

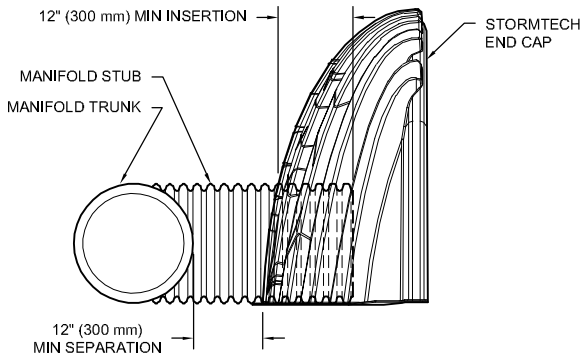
Install manifolds and lay out ADS PLUS fabric at inlet rows [min. 17.5 ft (5.33 m)] at each inlet end cap. Place a continuous piece (no seams) along entire length of Isolator® PLUS Row(s).

Align the first chamber and end cap of each row with inlet pipes. Contractor may choose to postpone stone placement around end chambers and leave ends of rows open for easy inspection of chambers during the backfill process.

Continue installing chambers by overlapping chamber end corrugations. Chamber joints are labeled “Lower Joint – Overlap Here” and “Build this direction – Upper Joint” Be sure that the chamber placement does not exceed the reach of the construction equipment used to place the stone. Maintain minimum 6” (150 mm) spacing between MC-3500 rows and 9” (230 mm) spacing between MC-4500 rows.

Place a continuous layer of ADS PLUS fabric between the foundation stone and the Isolator Row PLUS chambers, making sure the fabric lays flat and extends the entire width of the chamber feet.
When used on an Isolator Row PLUS, a 24” FLAMP (flared end ramp) is attached to the inside of the inlet pipe with a provided threaded rod and bolt. The FLAMP then lays on top of the ADS PLUS fabric.

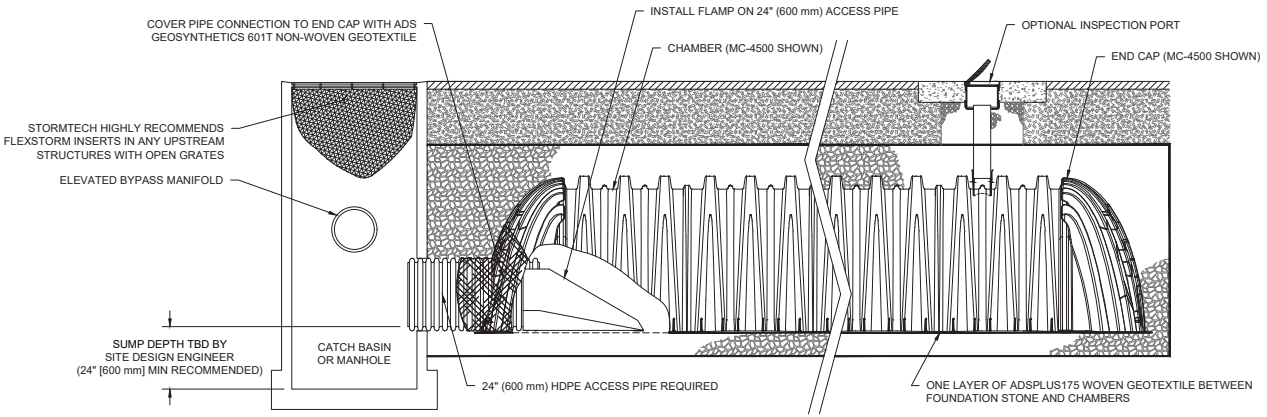
Manifold Insertion



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

Insert inlet and outlet manifolds a minimum 12” (300 mm) into chamber end caps. Manifold header should be a minimum 12” (300 mm) from base of end cap.

StormTech Isolator Row Plus Detail

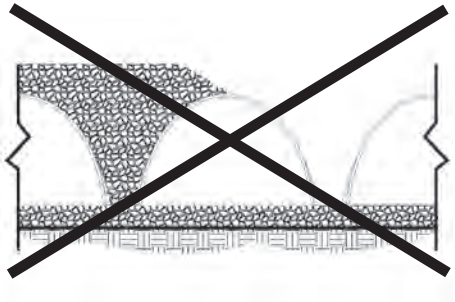


Initial Anchoring of Chambers – Embedment Stone

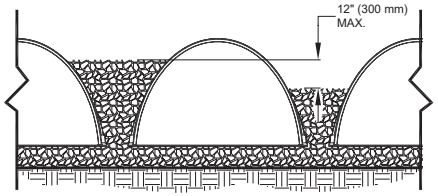
Initial embedment shall be spotted along the centerline of the chamber evenly anchoring the lower portion of the chamber. This is best accomplished with a stone conveyor or excavator reaching along the row.

No equipment shall be operated on the bed at this stage of the installation. Excavators must be located off the bed. Dump trucks shall not dump stone directly on to the bed. Dozers or loaders are not allowed on the bed at this time.

Backfill of Chambers – Embedment Stone

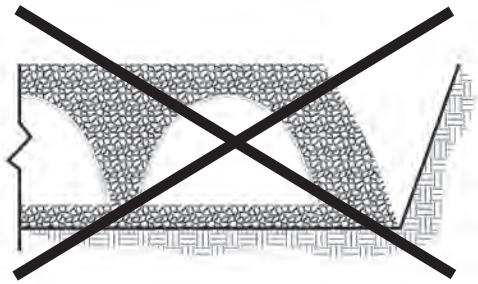


Uneven Backfill

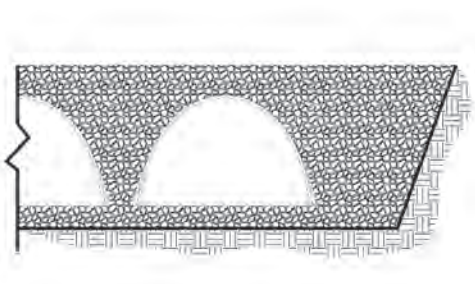


Even Backfill

Backfill chambers evenly. Stone column height should never differ by more than 12” (300 mm) between adjacent chamber rows or between chamber rows and perimeter.



Perimeter Not Backfilled



Perimeter Fully Backfilled

Perimeter stone must be brought up evenly with chamber rows. Perimeter must be fully backfilled, with stone extended horizontally to the excavation wall.

Backfill of Chambers – Embedment Stone and Cover Stone

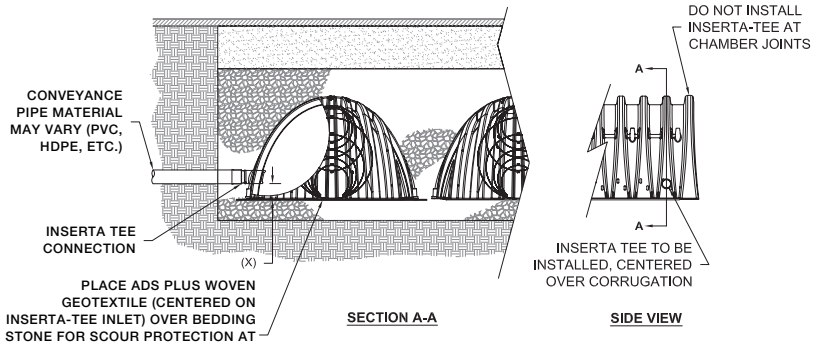
Continue evenly backfilling between rows and around perimeter until embedment stone reaches tops of chambers and a minimum 12” (300 mm) of cover stone is in place. Perimeter stone must extend horizontally to the excavation wall for both straight or sloped sidewalls. The recommended backfill methods are with a stone conveyor outside of the bed or build as you go with an excavator inside the bed reaching along the rows. Backfilling while assembling chambers rows as shown in the picture will help to ensure that equipment reach is not exceeded.

Only after chambers have been backfilled to top of chamber and with a minimum 12” (300 mm) of cover stone on top of chambers can skid loaders and small LGP dozers be used to final grade cover stone and backfill material in accordance with ground pressure limits in Table 2. Equipment must push material parallel to rows only. Never push perpendicular to rows. StormTech recommends the contractor inspect chamber rows before placing final backfill. Any chambers damaged by construction equipment shall be removed and replaced.

Final Backfill of Chambers – Fill Material

Install non-woven geotextile over stone. Geotextile must overlap 24” (600 mm) where edges meet. Compact at 24” (600 mm) of fill. Roller travel parallel with rows.

Inserta Tee Detail



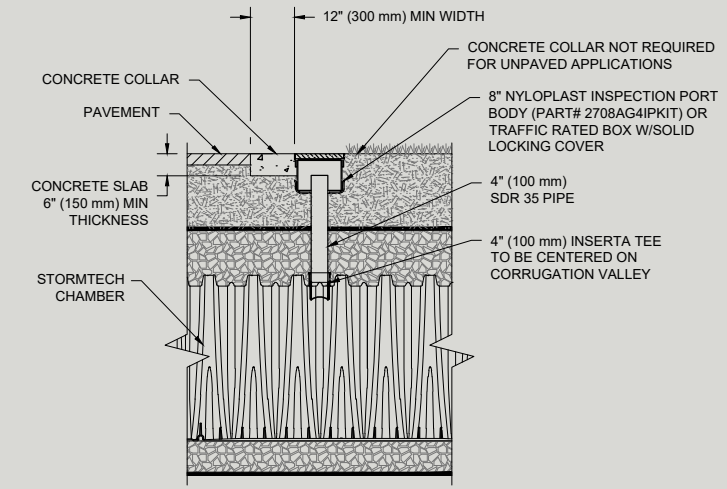
CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
MC-3500	12” (250 mm)	6” (150 mm)
MC-4500	12” (250 mm)	8” (200 mm)
INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON		

NOTE:
PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.

Table 1- Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation[1]	Compaction/Density Requirement
(D) **Final Fill:** Fill Material for layer 'D' starts from the top of the 'C' layer to the bottom of flexible pavement or unpaved finished grade above. Note that the pavement subbase may be part of the 'D' layer.	Any soil/rock materials, native soils or per engineer's plans. Check plans for pavement subgrade requirements.	N/A	Prepare per site design engineer's plans. Paved installations may have stringent material and preparation requirements.
(C) **Initial Fill:** Fill Material for layer 'C' starts from the top of the embedment stone ('B' layer) to 24" (600 mm) above the top of the chamber. Note that pavement subbase may be part of the 'C' layer.	Granular well-graded soil/aggregate mixtures, <35% fines or processed aggregate. Most pavement subbase materials can be used in lieu of this layer.	AASHTO M145[1] A-1, A-2-4, A-3 or AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	Begin compaction after min. 24" (600 mm) of material over the chambers is reached. Compact additional layers in 12" (300 mm) max. lifts to a min. 95% Proctor density for well-graded material and 95% relative density for processed aggregate materials.
(B) **Embedment Stone:** Fill the surrounding chambers from the foundation stone ('A' layer) to the 'C' layer above.	Clean, crushed, angular stone	AASHTO M43[1] 3, 4	No compaction required.
(A) **Foundation Stone:** Fill below chambers from the subgrade up to the foot (bottom) of the chamber.	Clean, crushed, angular stone,	AASHTO M43[1] 3, 4	Place and compact in 9" (230 mm) max lifts using two full coverages with a vibratory compactor.[2, 3]

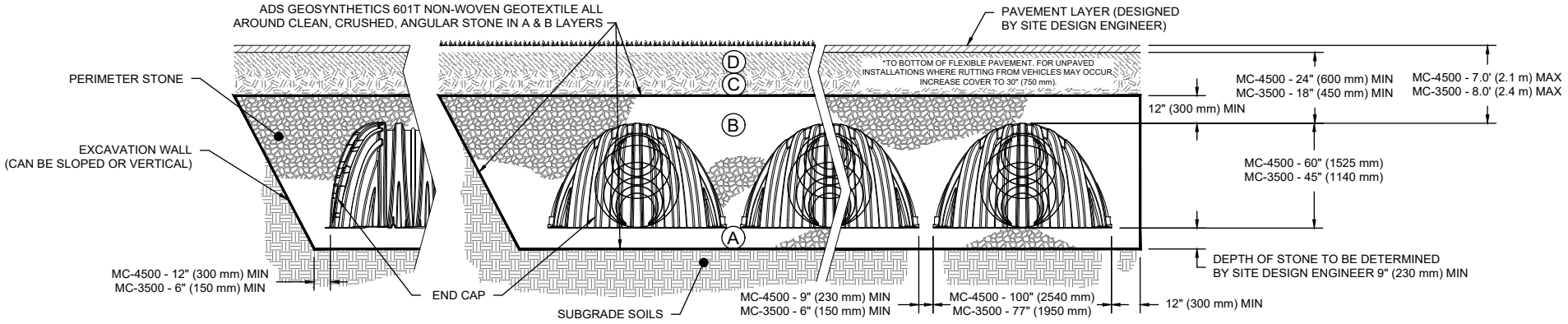
Figure 1- Inspection Port Detail



Please Note:

1. The listed AASHTO designations are for gradations only. The stone must also be clean, crushed, angular. For example, a specification for #4 stone would state: "clean, crushed, angular no. 4 (AASHTO M43) stone".
2. StormTech compaction requirements are met for 'A' location materials when placed and compacted in 9" (230 mm) (max) lifts using two full coverages with a vibratory compactor.
3. Where infiltration surfaces may be comprised by compaction, for standard installations and standard design load conditions, a flat surface may be achieved by raking or dragging without compaction equipment. For special load designs, contact StormTech for compaction requirements.

Figure 2 - Fill Material Locations



Notes:

1. 36" (900 mm) of stabilized cover materials over the chambers is recommended during the construction phase if general construction activities, such as full dump truck travel and dumping, are to occur over the bed.
2. During paving operations, dump truck axle loads on 18" (450mm) of cover for MC-3500s may be necessary. Precautions should be taken to avoid rutting of the road base layer, to ensure that compaction requirements have been met, and that a minimum of 18" (450mm) of cover for MC-3500s exists over the chambers. Contact StormTech for additional guidance on allowable axle loads during paving.
3. Ground pressure for track dozers is the vehicle operating weight divided by total ground contact area for both tracks. Excavators will exert higher ground pressures based on loaded bucket weight and boom extension.
4. Mini-excavators (<8,000lbs/3,628 kg) can be used with at least 12" (300 mm) of stone over the chambers and are limited by the maximum ground pressures in Table 2 based on a full bucket at maximum boom extension.
5. StormTech does not require compaction of initial fill at 18" (450 mm) of cover. However, requirements by others for 6" (150 mm) lifts may necessitate the use of small compactors at 18" (450 mm) of cover.
6. Storage of materials such as construction materials, equipment, spoils, etc. should not be located over the StormTech system. The use of equipment over the StormTech system not covered in Table 2 (ex. soil mixing equipment, cranes, etc) is limited. Please contact StormTech for more information.
7. Allowable track loads based on vehicle travel only. Excavators shall not operate on chamber beds until the total backfill reaches 3 feet (900 mm) over the entire bed.

Call StormTech at **888.892.2694** for technical and product information or visit www.stormtech.com

Table 2 - Maximum Allowable Construction Vehicle Loads[6]

Material Location	Fill Depth over Chambers in. (mm)	Maximum Allowable Wheel Loads		Maximum Allowable Track Loads[6]		Maximum Allowable Roller Loads
		Max Axle Load for Trucks lbs (kN)	Max Wheel Load for Loaders lbs (kN)	Track Width in. (mm)	Max Ground Pressure psf (kPa)	Max Drum Weight or Dynamic Force lbs (kN)
Ⓓ Final Fill Material	36" (900) Compacted	32,000 (142)	16,000 (71)	12" (305) 18" (457) 24" (610) 30" (762) 36" (914)	4050 (194) 2760 (132) 2130 (102) 1770 (84) 1530 (73)	38,000 (169)
Ⓒ Initial Fill Material	24" (600) Compacted	32,000 (142)	16,000 (71)	12" (305) 18" (457) 24" (610) 30" (762) 36" (914)	2750 (131) 1920 (92) 1520 (73) 1310 (63) 1180 (56)	20,000 (89)
	24" (600) Loose/Dumped	MC-3500		12" (305) 18" (457) 24" (610) 30" (762) 36" (914)	2430 (116) 1730 (82) 1390 (66) 1210 (58) 1100 (52)	16,000 (71)
		32,000 (142)	16,000 (71)			
		MC-4500				
		24,000 (107)	12,000 (53)			
	18" (450)	MC-3500		12" (305) 18" (457) 24" (610) 30" (762) 36" (914)	2140 (102) 1530 (73) 1260 (60) 1120 (53) 1030 (49)	5,000 (22) (static loads only)[5]
		32,000 (142)	16,000 (71)			
		MC-4500				
		24,000 (107)	12,000 (53)			
Ⓑ Embedment Stone	12" (300)	Not Allowed	Not Allowed	12" (305) 18" (457) 24" (610) 30" (762)	1100 (53) 710 (34) 660 (32) 580 (28)	Not Allowed
	6" (150)	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed

Table 3 - Placement Methods and Descriptions

Material Location	Placement Methods/ Restrictions	Wheel Load Restrictions	Track Load Restrictions	Roller Load Restrictions
		See Table 2 for Maximum Construction Loads		
Ⓓ Final Fill Material	A variety of placement methods may be used. All construction loads must not exceed the maximum limits in Table 2.	36" (900 mm) minimum cover required for dump trucks to dump over chambers.	Dozers to push parallel to rows.[4]	Roller travel parallel to rows only until 36" (900 mm) compacted cover is reached.
Ⓒ Initial Fill Material	Excavator positioned off bed recommended. Small excavator allowed over chambers. Small dozer allowed.	Asphalt can be dumped into paver when compacted pavement subbase reaches 24" (600 mm) above top of chambers.	Small LGP track dozers & skid loaders allowed to grade cover stone with at least 12" (300 mm) stone under tracks at all times. Equipment must push parallel to rows at all times.	Use dynamic force of roller only after compacted fill depth reaches 24" (600 mm) over chambers. Roller travel parallel to chamber rows only.
Ⓑ Embedment Stone	No equipment allowed on bare chambers. Use excavator or stone conveyor positioned off bed or on foundation stone to evenly fill around all chambers to at least the top of chambers.	No wheel loads allowed. Material must be placed outside the limits of the chamber bed.	No tracked equipment is allowed on chambers until a min. 12" (300 mm) cover stone is in place.	No rollers allowed.
Ⓐ Foundation Stone	No StormTech restrictions. Contractor responsible for any conditions or requirements by others relative to subgrade bearing capacity, dewatering or protection of subgrade.			

StormTech® Standard Limited Warranty

STANDARD LIMITED WARRANTY OF STORMTECH LLC ("STORMTECH"): PRODUCTS

(A) This Limited Warranty applies solely to the StormTech chambers and end plates manufactured by StormTech and sold to the original purchaser (the "Purchaser"). The chambers and end plates are collectively referred to as the "Products."

(B) The structural integrity of the Products, when installed strictly in accordance with StormTech's written installation instructions at the time of installation, are warranted to the Purchaser against defective materials and workmanship for one (1) year from the date of purchase. Should a defect appear in the Limited Warranty period, the Purchaser shall provide StormTech with written notice of the alleged defect at StormTech's corporate headquarters within ten (10) days of the discovery of the defect. The notice shall describe the alleged defect in reasonable detail. StormTech agrees to supply replacements for those Products determined by StormTech to be defective and covered by this Limited Warranty. The supply of replacement products is the sole remedy of the Purchaser for breaches of this Limited Warranty. StormTech's liability specifically excludes the cost of removal and/or installation of the Products.

(C) THIS LIMITED WARRANTY IS EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE PRODUCTS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.

(D) This Limited Warranty only applies to the Products when the Products are installed in a single layer. UNDER NO CIRCUMSTANCES, SHALL THE PRODUCTS BE INSTALLED IN A MULTI-LAYER CONFIGURATION.

(E) No representative of StormTech has the authority to change this Limited Warranty in any manner or to extend this Limited Warranty. This Limited Warranty does not apply to any person other than to the Purchaser.

(F) Under no circumstances shall StormTech be liable to the Purchaser or to any third party for product liability claims; claims arising from the design, shipment, or installation of the Products, or the cost of other goods or services related to the purchase and installation of the Products. For this Limited Warranty to apply, the Products must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and StormTech's written installation instructions.

(G) THE LIMITED WARRANTY DOES NOT EXTEND TO INCIDENTAL, CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES. STORMTECH SHALL NOT BE LIABLE FOR PENALTIES OR LIQUIDATED DAMAGES, INCLUDING LOSS OF PRODUCTION AND PROFITS; LABOR AND MATERIALS; OVERHEAD COSTS; OR OTHER LOSS OR EXPENSE INCURRED BY THE PURCHASER OR ANY THIRD PARTY. SPECIFICALLY EXCLUDED FROM LIMITED WARRANTY COVERAGE ARE DAMAGE TO THE PRODUCTS ARISING FROM ORDINARY WEAR AND TEAR; ALTERATION, ACCIDENT, MISUSE, ABUSE OR NEGLECT; THE PRODUCTS BEING SUBJECTED TO VEHICLE TRAFFIC OR OTHER CONDITIONS WHICH ARE NOT PERMITTED BY STORMTECH'S WRITTEN SPECIFICATIONS OR INSTALLATION INSTRUCTIONS; FAILURE TO MAINTAIN THE MINIMUM GROUND COVERS SET FORTH IN THE INSTALLATION INSTRUCTIONS; THE PLACEMENT OF IMPROPER MATERIALS INTO THE PRODUCTS; FAILURE OF THE PRODUCTS DUE TO IMPROPER SITING OR IMPROPER SIZING; OR ANY OTHER EVENT NOT CAUSED BY STORMTECH. A PRODUCT ALSO IS EXCLUDED FROM LIMITED WARRANTY COVERAGE IF SUCH PRODUCT IS USED IN A PROJECT OR SYSTEM IN WHICH ANY GEOTEXTILE PRODUCTS OTHER THAN THOSE PROVIDED BY ADVANCED DRAINAGE SYSTEMS ARE USED. THIS LIMITED WARRANTY REPRESENTS STORMTECH'S SOLE LIABILITY TO THE PURCHASER FOR CLAIMS RELATED TO THE PRODUCTS, WHETHER THE CLAIM IS BASED UPON CONTRACT, TORT, OR OTHER LEGAL THEORY.

ADS StormTech™

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ADS 0601T/O NONWOVEN GEOTEXTILE SPECIFICATION

Scope

This specification describes ADS 0601T/O nonwoven geotextile.

Filter Fabric Requirements

ADS 0601T/O is an orange nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. ADS 0601T/O is inert to biological degradation and resists naturally encountered chemicals, alkali and acids. ADS 0601T/O conforms to the physical property values listed below:

Filter Fabric Properties

Property	Test Method	Unit	Typical Value[1] MD	Typical Value[1] CD
Grab Tensile Strength	ASTM D4632	lbs (N)	175 (779)	175 (779)
Grab Tensile Elongation	ASTM D4632	%	75	75
Trapezoid Tear Strength	ASTM D4533	lbs (N)	85 (378)	85 (378)
CBR Puncture Strength	ASTM D6241	lbs (N)	480 (2136)	480 (2136)
Permittivity	ASTM D4491	sec^{-1}	1.5	1.5
Flow Rate	ASTM D4491	gal/min/ft^2 (l/min/m^2)	105 (4278)	105 (4278)
UV Resistance (at 500 hours)[1]	ASTM D4355	% strength retained	80	80

Physical Properties

Property	Test Method	Unit	Typical Value[2]
Weight	ASTM D5161	oz/yd^2 (g/m^2)	6.5 (220)
Thickness	ASTM D5199	mils (mm)	65 (1.7)
Roll Dimensions (W x L)	-	ft (m)	15 x 300 (4.5 x 91)
Roll Area	-	yd^2 (m^2)	500 (418)
Estimated Roll Weight	-	lb (kg)	220 (100)

1 Modified, Minimum Test Value
2 ASTM D4439 Standard Terminology for Geosynthetics: typical value, n-*for geosynthetics*, the mean value calculated from documented manufacturing quality control test results for a defined population obtained from one test method associated with on specific property.

Separation

ADS 315W WOVEN GEOTEXTILE SPECIFICATION

Scope

This specification describes ADS 315W woven geotextile.

Filter Fabric Requirements

ADS 315W is manufactured using high-tenacity polypropylene yarns that are woven to form a dimensionally stable network, which allows the yarns to maintain their relative position. ADS 315W resists ultraviolet deterioration, rotting and biological degradation and is inert to commonly encountered soil chemicals. ADS 315W conforms to the physical property values listed below:

Filter Fabric Properties

Property	Test Method	Unit	M.A.R.V. (Minimum Average Roll Value)[2]
Tensile Strength (Grab)	ASTM D4632	lbs (N)	315 (1400)
Elongation	ASTM D4632	%	15
CBR Puncture	ASTM D6241	lbs (N)	900 (4005)
Puncture	ASTM D4833	lbs (N)	150 (667)
Mullen Burst	ASTM D3786	psi (kPa)	600 (4134)
Trapezoidal Tear	ASTM D4533	lbs (N)	120 (533)
UV Resistance (at 500 hours)	ASTM D4355	%	70
Apparent Opening Size (AOS)*	ASTM D4751	U.S. Sieve (mm)	40 (.425)
Permittivity	ASTM D4491	sec^{-1}	.05
Water Flow Rate	ASTM D4491	gpm/ft^2 ($l/min/m^2$)	4 (163)

* Maximum average roll value.

Packaging

Roll Dimensions (W x L) - ft. (m)	12.5 x 360/ 15 x 300 / 17.5 x 258 (3.81 x 109.8/ 4.57 x 91.5 / 5.33 x 78.6)

Appendix G – MDT Hydrology

Appendix 9B — RAINFALL DATA

Rainfall depths and intensities for various storm durations and recurrence intervals are provided for 100 weather stations across the state of Montana in Figure 9.B-3. The values included in this table were developed through frequency analysis using the Gumbel Distribution of hourly and sub-hourly data obtained from the National Oceanic and Atmospheric Association National Climatic Data Center. The following paragraphs summarize the methodologies used in the study. For additional information, see the "Montana State-Wide Precipitation Frequency Analysis." (14)

All weather stations with at least a 20-year period of record were included in the analysis. Periods of record (POR) were modified to account for missing or deleted data. Precipitation occurring in November, December, January, and February are assumed to be the result of snowfall and are excluded from the analysis. In general, rainfall depths and intensities reported in Figure 9.B-3 for storm durations of 1 through 24 hours are developed from frequency analyses of hourly data through 2013. Sub one-hour precipitation depths reported in Figure 9B-3 at the six first order weather stations of Billings, Glasgow, Great Falls, Havre, Helena, and Missoula are developed from frequency analysis of short-duration precipitation data through 2014. Sub one-hour depths reported for second order weather stations are estimated using the ratios reported in Figure 9.B-1, developed using the results of the short-duration frequency analysis for the six first-order weather stations. Sub one-hour depths at second order weather stations for durations other than those shown in Figure 9.B-1 are estimated through linear interpolation.

Figure 9.B-1 — STATEWIDE SHORT-DURATION PRECIPITATION RATIOS TO THE 1-HOUR EVENT

Duration	Ratio of Precipitation Depth to 1-Hour Depth
5-min	0.41
10-min	0.60
15-min	0.73
30-min	0.88
45-min	0.95

The locations of the weather stations included in the study are provided in Figure 9.B-2. The six first-order weather stations where short-duration rainfall values were developed through frequency analysis are identified in Figure 9.B-2 with a star.

Disclaimer:

The precipitation data and rainfall tables (collectively "data") presented in this *Manual* were developed by the Montana Department of Transportation (MDT) specifically for MDT use. The data were not developed for any other use or users. Users of this data do so entirely at their own risk. MDT does not assume, and it specifically disclaims, any responsibility for any other use of this data. In no event will MDT be liable for any direct, indirect, incidental, consequential, special, exemplary, or consequential damages, including lost profit, resulting from any use or misuse of the data.

Figure 9.B-2 — WEATHER STATION LOCATIONS

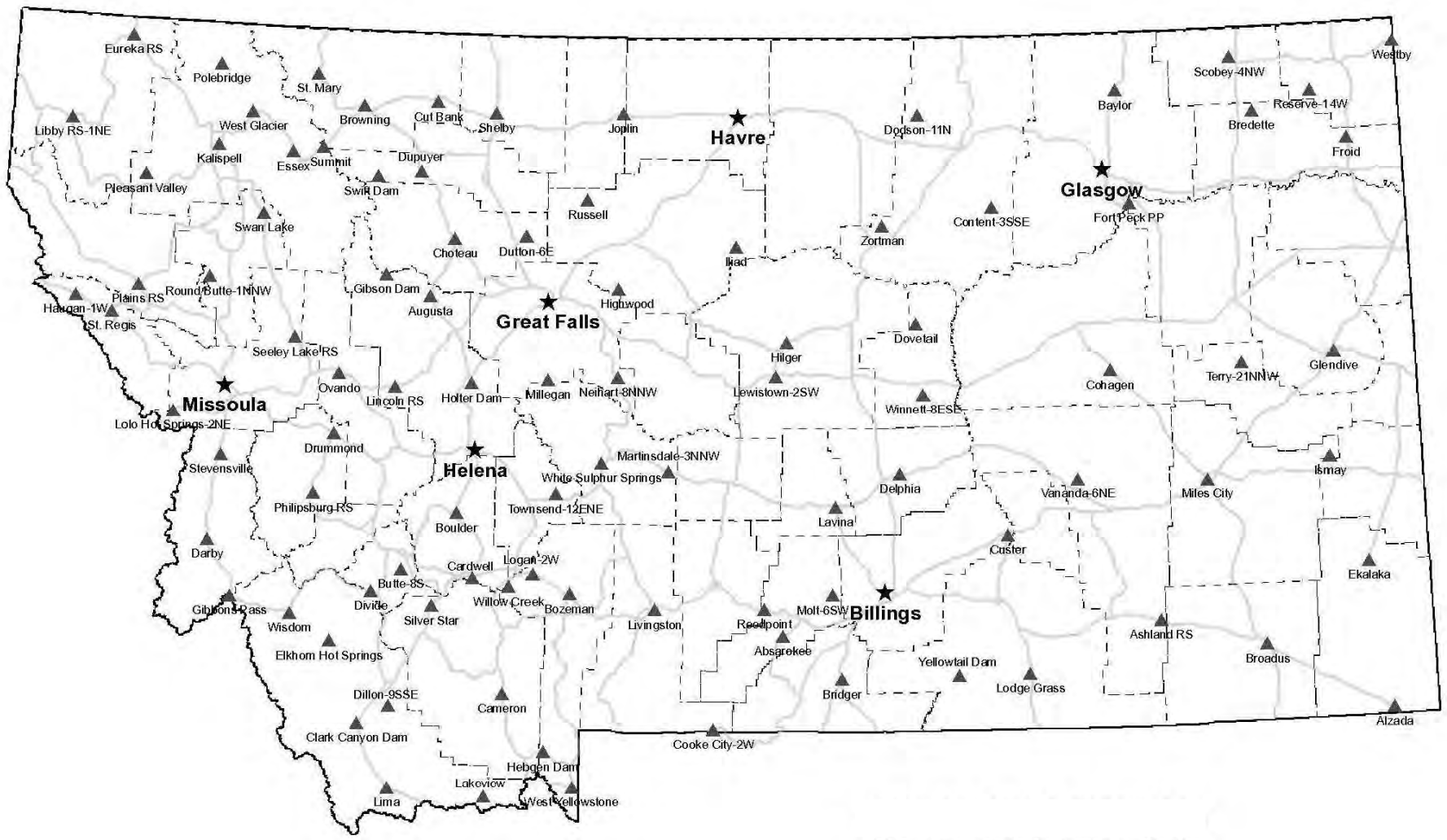

Figure 9.B-3 — RAINFALL DEPTHS/INTENSITIES BASED ON STORM DURATION/RECURRENCE

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Absarokee	5-min	0.26	0.40	0.50	0.62	0.70	0.79	3.11	4.82	5.95	7.38	8.44	9.49
COOP: 240019	10-min	0.38	0.59	0.73	0.90	1.03	1.16	2.27	3.52	4.35	5.40	6.18	6.95
Elev: 3,881 ft	15-min	0.46	0.71	0.88	1.10	1.25	1.41	1.84	2.86	3.53	4.38	5.01	5.64
Modified POR: 34	20-min	0.49	0.76	0.94	1.17	1.34	1.51	1.48	2.29	2.83	3.51	4.01	4.52
Type: 2nd Order	25-min	0.52	0.81	1.00	1.25	1.42	1.60	1.26	1.95	2.41	2.99	3.42	3.84
	30-min	0.56	0.86	1.06	1.32	1.51	1.70	1.11	1.72	2.13	2.64	3.02	3.40
	35-min	0.57	0.88	1.09	1.36	1.55	1.74	0.98	1.52	1.87	2.32	2.66	2.99
	40-min	0.59	0.91	1.12	1.39	1.59	1.79	0.88	1.36	1.68	2.09	2.38	2.68
	45-min	0.60	0.93	1.15	1.43	1.63	1.83	0.80	1.24	1.53	1.90	2.17	2.44
	50-min	0.61	0.95	1.17	1.45	1.66	1.87	0.73	1.14	1.40	1.74	1.99	2.24
	55-min	0.62	0.96	1.19	1.48	1.69	1.90	0.68	1.05	1.30	1.61	1.84	2.07
	1-hr	0.63	0.98	1.21	1.50	1.72	1.93	0.63	0.98	1.21	1.50	1.72	1.93
	2-hr	0.71	1.04	1.25	1.53	1.73	1.93	0.36	0.52	0.63	0.76	0.86	0.96
	3-hr	0.79	1.15	1.39	1.70	1.92	2.15	0.26	0.38	0.46	0.57	0.64	0.72
	6-hr	1.07	1.46	1.71	2.03	2.27	2.51	0.18	0.24	0.29	0.34	0.38	0.42
	12-hr	1.50	1.97	2.27	2.66	2.95	3.24	0.13	0.16	0.19	0.22	0.25	0.27
	24-hr	1.98	2.69	3.16	3.75	4.19	4.63	0.082	0.112	0.132	0.156	0.175	0.193
Alzada	5-min	0.30	0.41	0.48	0.58	0.64	0.71	3.58	4.91	5.79	6.91	7.74	8.56
COOP: 240165	10-min	0.44	0.60	0.71	0.84	0.94	1.04	2.62	3.59	4.24	5.06	5.66	6.26
Elev: 3,422 ft	15-min	0.53	0.73	0.86	1.03	1.15	1.27	2.12	2.91	3.44	4.10	4.59	5.08
Modified POR: 59	20-min	0.57	0.78	0.92	1.10	1.23	1.36	1.70	2.34	2.76	3.29	3.68	4.07
Type: 2nd Order	25-min	0.60	0.83	0.98	1.17	1.31	1.44	1.45	1.99	2.35	2.80	3.13	3.47
	30-min	0.64	0.88	1.04	1.24	1.38	1.53	1.28	1.76	2.07	2.47	2.77	3.06
	35-min	0.66	0.90	1.06	1.27	1.42	1.57	1.13	1.55	1.82	2.18	2.44	2.69
	40-min	0.67	0.92	1.09	1.30	1.46	1.61	1.01	1.39	1.64	1.95	2.19	2.42
	45-min	0.69	0.95	1.12	1.33	1.49	1.65	0.92	1.26	1.49	1.78	1.99	2.20
	50-min	0.70	0.96	1.14	1.36	1.52	1.68	0.84	1.16	1.37	1.63	1.82	2.02
	55-min	0.71	0.98	1.16	1.38	1.55	1.71	0.78	1.07	1.26	1.51	1.69	1.87
	1-hr	0.73	1.00	1.18	1.40	1.57	1.74	0.73	1.00	1.18	1.40	1.57	1.74
	2-hr	0.84	1.08	1.25	1.45	1.60	1.75	0.42	0.54	0.62	0.73	0.80	0.88
	3-hr	0.91	1.17	1.34	1.56	1.72	1.88	0.30	0.39	0.45	0.52	0.57	0.63
	6-hr	1.13	1.45	1.66	1.93	2.13	2.33	0.19	0.24	0.28	0.32	0.36	0.39
	12-hr	1.37	1.71	1.94	2.23	2.44	2.65	0.11	0.14	0.16	0.19	0.20	0.22
	24-hr	1.62	2.02	2.29	2.62	2.87	3.11	0.068	0.084	0.095	0.109	0.119	0.130

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Ashland RS	5-min	0.31	0.46	0.55	0.67	0.76	0.84	3.78	5.48	6.60	8.02	9.08	10.12
COOP: 240330	10-min	0.46	0.67	0.80	0.98	1.11	1.23	2.76	4.01	4.83	5.87	6.64	7.41
Elev: 3,002 ft	15-min	0.56	0.81	0.98	1.19	1.35	1.50	2.24	3.25	3.92	4.76	5.39	6.01
Modified POR: 52	20-min	0.60	0.87	1.05	1.27	1.44	1.61	1.80	2.60	3.14	3.82	4.32	4.82
Type: 2nd Order	25-min	0.64	0.92	1.11	1.35	1.53	1.71	1.53	2.22	2.67	3.25	3.68	4.10
	30-min	0.68	0.98	1.18	1.43	1.62	1.81	1.35	1.96	2.36	2.87	3.25	3.62
	35-min	0.69	1.01	1.21	1.47	1.67	1.86	1.19	1.72	2.08	2.53	2.86	3.19
	40-min	0.71	1.03	1.24	1.51	1.71	1.91	1.07	1.55	1.86	2.27	2.56	2.86
	45-min	0.73	1.06	1.27	1.55	1.75	1.95	0.97	1.41	1.70	2.07	2.34	2.61
	50-min	0.74	1.08	1.30	1.58	1.78	1.99	0.89	1.29	1.56	1.89	2.14	2.39
	55-min	0.75	1.09	1.32	1.60	1.81	2.02	0.82	1.19	1.44	1.75	1.98	2.21
	1-hr	0.77	1.11	1.34	1.63	1.84	2.06	0.77	1.11	1.34	1.63	1.84	2.06
	2-hr	0.86	1.24	1.49	1.80	2.04	2.27	0.43	0.62	0.74	0.90	1.02	1.14
	3-hr	0.93	1.36	1.65	2.01	2.28	2.54	0.31	0.45	0.55	0.67	0.76	0.85
	6-hr	1.13	1.56	1.84	2.20	2.47	2.73	0.19	0.26	0.31	0.37	0.41	0.46
	12-hr	1.31	1.74	2.02	2.38	2.64	2.90	0.11	0.14	0.17	0.20	0.22	0.24
	24-hr	1.56	2.02	2.33	2.71	3.00	3.28	0.065	0.084	0.097	0.113	0.125	0.137
Augusta	5-min	0.27	0.42	0.52	0.65	0.74	0.83	3.22	5.03	6.23	7.75	8.88	9.99
COOP: 240364	10-min	0.39	0.61	0.76	0.95	1.08	1.22	2.35	3.68	4.56	5.67	6.49	7.31
Elev: 4,070 ft	15-min	0.48	0.75	0.92	1.15	1.32	1.48	1.91	2.99	3.70	4.60	5.27	5.93
Modified POR: 54	20-min	0.51	0.80	0.99	1.23	1.41	1.58	1.53	2.39	2.96	3.69	4.22	4.75
Type: 2nd Order	25-min	0.54	0.85	1.05	1.31	1.50	1.69	1.30	2.04	2.52	3.14	3.59	4.05
	30-min	0.58	0.90	1.11	1.39	1.59	1.79	1.15	1.80	2.23	2.77	3.18	3.57
	35-min	0.59	0.92	1.14	1.42	1.63	1.83	1.01	1.58	1.96	2.44	2.79	3.15
	40-min	0.61	0.95	1.17	1.46	1.67	1.88	0.91	1.42	1.76	2.19	2.51	2.82
	45-min	0.62	0.97	1.20	1.50	1.71	1.93	0.83	1.30	1.60	2.00	2.29	2.57
	50-min	0.63	0.99	1.22	1.52	1.74	1.96	0.76	1.19	1.47	1.83	2.09	2.36
	55-min	0.64	1.01	1.25	1.55	1.77	2.00	0.70	1.10	1.36	1.69	1.94	2.18
	1-hr	0.65	1.02	1.27	1.58	1.80	2.03	0.65	1.02	1.27	1.58	1.80	2.03
	2-hr	0.74	1.09	1.32	1.61	1.83	2.04	0.37	0.55	0.66	0.81	0.91	1.02
	3-hr	0.84	1.19	1.42	1.72	1.93	2.15	0.28	0.40	0.47	0.57	0.64	0.72
	6-hr	1.06	1.39	1.61	1.89	2.09	2.30	0.18	0.23	0.27	0.31	0.35	0.38
	12-hr	1.32	1.69	1.93	2.24	2.46	2.69	0.11	0.14	0.16	0.19	0.21	0.22
	24-hr	1.68	2.15	2.47	2.86	3.16	3.45	0.070	0.090	0.103	0.119	0.132	0.144

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Baylor	5-min	0.31	0.46	0.56	0.68	0.77	0.86	3.77	5.53	6.69	8.15	9.24	10.32
COOP: 240554	10-min	0.46	0.67	0.82	0.99	1.13	1.26	2.76	4.04	4.89	5.96	6.76	7.55
Elev: 2,933 ft	15-min	0.56	0.82	0.99	1.21	1.37	1.53	2.24	3.28	3.97	4.84	5.48	6.12
Modified POR: 58	20-min	0.60	0.88	1.06	1.29	1.46	1.64	1.80	2.63	3.18	3.88	4.39	4.91
Type: 2nd Order	25-min	0.64	0.93	1.13	1.38	1.56	1.74	1.53	2.24	2.71	3.30	3.74	4.18
	30-min	0.68	0.99	1.20	1.46	1.65	1.85	1.35	1.98	2.39	2.92	3.30	3.69
	35-min	0.69	1.01	1.23	1.50	1.70	1.89	1.19	1.74	2.10	2.57	2.91	3.25
	40-min	0.71	1.04	1.26	1.54	1.74	1.94	1.07	1.56	1.89	2.30	2.61	2.91
	45-min	0.73	1.07	1.29	1.57	1.78	1.99	0.97	1.42	1.72	2.10	2.38	2.66
	50-min	0.74	1.09	1.31	1.60	1.82	2.03	0.89	1.30	1.58	1.92	2.18	2.43
	55-min	0.75	1.10	1.34	1.63	1.85	2.06	0.82	1.20	1.46	1.78	2.01	2.25
	1-hr	0.77	1.12	1.36	1.66	1.88	2.10	0.77	1.12	1.36	1.66	1.88	2.10
	2-hr	0.89	1.28	1.54	1.87	2.11	2.35	0.45	0.64	0.77	0.93	1.05	1.17
	3-hr	0.98	1.35	1.60	1.91	2.14	2.37	0.33	0.45	0.53	0.64	0.71	0.79
	6-hr	1.13	1.48	1.71	2.00	2.22	2.44	0.19	0.25	0.28	0.33	0.37	0.41
	12-hr	1.30	1.65	1.89	2.19	2.41	2.63	0.11	0.14	0.16	0.18	0.20	0.22
	24-hr	1.53	1.95	2.24	2.59	2.86	3.12	0.064	0.081	0.093	0.108	0.119	0.130
Billings Airport	5-min	0.27	0.42	0.51	0.65	0.75	0.85	3.26	5.02	6.18	7.75	8.96	10.16
COOP: 240807	10-min	0.39	0.58	0.70	0.87	1.00	1.13	2.33	3.45	4.19	5.20	5.98	6.75
Elev: 3,567 ft	15-min	0.47	0.68	0.83	1.03	1.18	1.33	1.87	2.74	3.31	4.11	4.72	5.32
Modified POR: 66	20-min	0.50	0.74	0.90	1.12	1.29	1.46	1.49	2.23	2.71	3.37	3.87	4.37
Type: 1st Order	25-min	0.53	0.79	0.97	1.20	1.38	1.56	1.27	1.90	2.32	2.88	3.31	3.74
	30-min	0.56	0.84	1.02	1.28	1.47	1.66	1.12	1.68	2.05	2.55	2.94	3.33
	35-min	0.58	0.87	1.06	1.32	1.51	1.71	1.00	1.49	1.82	2.26	2.59	2.92
	40-min	0.60	0.90	1.10	1.36	1.57	1.77	0.91	1.35	1.65	2.05	2.35	2.65
	45-min	0.62	0.93	1.13	1.40	1.61	1.82	0.83	1.24	1.51	1.87	2.15	2.42
	50-min	0.64	0.95	1.16	1.44	1.65	1.87	0.77	1.14	1.40	1.73	1.98	2.24
	55-min	0.65	0.98	1.19	1.47	1.69	1.91	0.71	1.06	1.30	1.61	1.85	2.08
	1-hr	0.66	0.99	1.21	1.50	1.72	1.93	0.66	0.99	1.21	1.50	1.72	1.93
	2-hr	0.76	1.11	1.34	1.63	1.85	2.07	0.38	0.55	0.67	0.82	0.93	1.03
	3-hr	0.85	1.18	1.40	1.68	1.88	2.09	0.28	0.39	0.47	0.56	0.63	0.70
	6-hr	1.05	1.38	1.60	1.88	2.08	2.28	0.18	0.23	0.27	0.31	0.35	0.38
	12-hr	1.29	1.67	1.92	2.23	2.46	2.70	0.11	0.14	0.16	0.19	0.21	0.22
	24-hr	1.57	2.05	2.37	2.78	3.08	3.38	0.065	0.085	0.099	0.116	0.128	0.141

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Boulder	5-min	0.17	0.24	0.29	0.35	0.40	0.44	2.05	2.92	3.49	4.22	4.76	5.29
COOP: 241008	10-min	0.25	0.36	0.43	0.51	0.58	0.65	1.50	2.13	2.56	3.09	3.48	3.87
Elev: 4,882 ft	15-min	0.30	0.43	0.52	0.63	0.71	0.79	1.22	1.73	2.07	2.50	2.82	3.14
Modified POR: 58	20-min	0.32	0.46	0.55	0.67	0.75	0.84	0.97	1.39	1.66	2.01	2.26	2.52
Type: 2nd Order	25-min	0.35	0.49	0.59	0.71	0.80	0.89	0.83	1.18	1.41	1.71	1.93	2.14
	30-min	0.37	0.52	0.62	0.75	0.85	0.95	0.73	1.04	1.25	1.51	1.70	1.89
	35-min	0.38	0.54	0.64	0.77	0.87	0.97	0.65	0.92	1.10	1.33	1.50	1.67
	40-min	0.39	0.55	0.66	0.79	0.90	1.00	0.58	0.82	0.99	1.19	1.34	1.50
	45-min	0.40	0.56	0.67	0.81	0.92	1.02	0.53	0.75	0.90	1.09	1.22	1.36
	50-min	0.40	0.57	0.69	0.83	0.93	1.04	0.48	0.69	0.82	0.99	1.12	1.25
	55-min	0.41	0.58	0.70	0.84	0.95	1.06	0.45	0.64	0.76	0.92	1.04	1.15
	1-hr	0.42	0.59	0.71	0.86	0.97	1.08	0.42	0.59	0.71	0.86	0.97	1.08
	2-hr	0.51	0.70	0.83	1.00	1.12	1.24	0.25	0.35	0.42	0.50	0.56	0.62
	3-hr	0.56	0.77	0.91	1.08	1.21	1.34	0.19	0.26	0.30	0.36	0.40	0.45
	6-hr	0.71	0.92	1.06	1.23	1.36	1.49	0.12	0.15	0.18	0.21	0.23	0.25
	12-hr	0.88	1.13	1.30	1.52	1.68	1.83	0.07	0.09	0.11	0.13	0.14	0.15
	24-hr	1.07	1.37	1.57	1.82	2.01	2.20	0.045	0.057	0.065	0.076	0.084	0.091
Bozeman Airport	5-min	0.17	0.26	0.32	0.40	0.45	0.51	2.08	3.16	3.87	4.76	5.43	6.09
COOP: 240622	10-min	0.25	0.38	0.47	0.58	0.66	0.74	1.53	2.31	2.83	3.48	3.97	4.45
Elev: 4,459 ft	15-min	0.31	0.47	0.57	0.71	0.81	0.90	1.24	1.87	2.29	2.83	3.22	3.61
Modified POR: 40	20-min	0.33	0.50	0.61	0.75	0.86	0.96	0.99	1.50	1.84	2.26	2.58	2.89
Type: 2nd Order	25-min	0.35	0.53	0.65	0.80	0.92	1.03	0.84	1.28	1.56	1.93	2.20	2.46
	30-min	0.37	0.56	0.69	0.85	0.97	1.09	0.75	1.13	1.38	1.70	1.94	2.18
	35-min	0.38	0.58	0.71	0.87	1.00	1.12	0.66	0.99	1.22	1.50	1.71	1.92
	40-min	0.39	0.59	0.73	0.90	1.02	1.15	0.59	0.89	1.09	1.35	1.53	1.72
	45-min	0.40	0.61	0.75	0.92	1.05	1.18	0.54	0.81	1.00	1.23	1.40	1.57
	50-min	0.41	0.62	0.76	0.94	1.07	1.20	0.49	0.74	0.91	1.12	1.28	1.44
	55-min	0.42	0.63	0.77	0.95	1.08	1.22	0.45	0.69	0.84	1.04	1.18	1.33
	1-hr	0.42	0.64	0.79	0.97	1.10	1.24	0.42	0.64	0.79	0.97	1.10	1.24
	2-hr	0.49	0.68	0.81	0.98	1.10	1.22	0.24	0.34	0.41	0.49	0.55	0.61
	3-hr	0.56	0.74	0.86	1.01	1.12	1.23	0.19	0.25	0.29	0.34	0.37	0.41
	6-hr	0.71	0.88	0.99	1.14	1.24	1.35	0.12	0.15	0.17	0.19	0.21	0.22
	12-hr	0.91	1.12	1.26	1.43	1.56	1.69	0.08	0.09	0.10	0.12	0.13	0.14
	24-hr	1.18	1.49	1.70	1.96	2.15	2.34	0.049	0.062	0.071	0.082	0.090	0.098

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Bredette	5-min	0.35	0.45	0.52	0.61	0.68	0.75	4.15	5.44	6.29	7.37	8.16	8.96
COOP: 241088	10-min	0.51	0.66	0.77	0.90	1.00	1.09	3.04	3.98	4.60	5.39	5.97	6.55
Elev: 2,280 ft	15-min	0.62	0.81	0.93	1.09	1.21	1.33	2.46	3.23	3.73	4.37	4.85	5.32
Modified POR: 67	20-min	0.66	0.86	1.00	1.17	1.29	1.42	1.97	2.59	2.99	3.50	3.88	4.26
Type: 2nd Order	25-min	0.70	0.92	1.06	1.24	1.38	1.51	1.68	2.20	2.55	2.98	3.31	3.63
	30-min	0.74	0.97	1.13	1.32	1.46	1.60	1.49	1.95	2.25	2.63	2.92	3.20
	35-min	0.76	1.00	1.15	1.35	1.50	1.64	1.31	1.71	1.98	2.32	2.57	2.82
	40-min	0.78	1.02	1.18	1.39	1.54	1.69	1.17	1.54	1.78	2.08	2.31	2.53
	45-min	0.80	1.05	1.21	1.42	1.58	1.73	1.07	1.40	1.62	1.90	2.10	2.31
	50-min	0.82	1.07	1.24	1.45	1.60	1.76	0.98	1.28	1.48	1.74	1.92	2.11
	55-min	0.83	1.09	1.26	1.47	1.63	1.79	0.91	1.19	1.37	1.61	1.78	1.95
	1-hr	0.84	1.11	1.28	1.50	1.66	1.82	0.84	1.11	1.28	1.50	1.66	1.82
	2-hr	0.96	1.28	1.50	1.76	1.96	2.16	0.48	0.64	0.75	0.88	0.98	1.08
	3-hr	1.05	1.40	1.63	1.93	2.14	2.36	0.35	0.47	0.54	0.64	0.71	0.79
	6-hr	1.18	1.58	1.84	2.17	2.42	2.67	0.20	0.26	0.31	0.36	0.40	0.44
	12-hr	1.36	1.84	2.16	2.57	2.87	3.16	0.11	0.15	0.18	0.21	0.24	0.26
	24-hr	1.60	2.14	2.49	2.95	3.28	3.61	0.067	0.089	0.104	0.123	0.137	0.150
Bridger	5-min	0.16	0.23	0.27	0.33	0.37	0.41	1.89	2.72	3.27	3.96	4.47	4.98
COOP: 241102	10-min	0.23	0.33	0.40	0.48	0.55	0.61	1.38	1.99	2.39	2.90	3.27	3.64
Elev: 3,681 ft	15-min	0.28	0.40	0.48	0.59	0.66	0.74	1.12	1.61	1.94	2.35	2.65	2.96
Modified POR: 51	20-min	0.30	0.43	0.52	0.63	0.71	0.79	0.90	1.29	1.55	1.88	2.13	2.37
Type: 2nd Order	25-min	0.32	0.46	0.55	0.67	0.75	0.84	0.77	1.10	1.32	1.60	1.81	2.02
	30-min	0.34	0.49	0.58	0.71	0.80	0.89	0.68	0.97	1.17	1.42	1.60	1.78
	35-min	0.35	0.50	0.60	0.73	0.82	0.91	0.60	0.86	1.03	1.25	1.41	1.57
	40-min	0.36	0.51	0.62	0.75	0.84	0.94	0.53	0.77	0.92	1.12	1.26	1.41
	45-min	0.37	0.52	0.63	0.76	0.86	0.96	0.49	0.70	0.84	1.02	1.15	1.28
	50-min	0.37	0.53	0.64	0.78	0.88	0.98	0.45	0.64	0.77	0.93	1.05	1.17
	55-min	0.38	0.54	0.65	0.79	0.89	1.00	0.41	0.59	0.71	0.86	0.97	1.09
	1-hr	0.38	0.55	0.66	0.80	0.91	1.01	0.38	0.55	0.66	0.80	0.91	1.01
	2-hr	0.50	0.66	0.76	0.89	0.99	1.08	0.25	0.33	0.38	0.44	0.49	0.54
	3-hr	0.60	0.75	0.85	0.97	1.06	1.16	0.20	0.25	0.28	0.32	0.35	0.39
	6-hr	0.83	1.05	1.20	1.39	1.53	1.66	0.14	0.18	0.20	0.23	0.25	0.28
	12-hr	1.18	1.55	1.80	2.12	2.35	2.58	0.10	0.13	0.15	0.18	0.20	0.22
	24-hr	1.49	2.04	2.40	2.85	3.19	3.53	0.062	0.085	0.100	0.119	0.133	0.147

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Broadus	5-min	0.31	0.44	0.53	0.64	0.72	0.80	3.75	5.33	6.38	7.70	8.68	9.65
COOP: 241127	10-min	0.46	0.65	0.78	0.94	1.06	1.18	2.74	3.90	4.66	5.63	6.35	7.06
Elev: 3,031 ft	15-min	0.56	0.79	0.95	1.14	1.29	1.43	2.22	3.16	3.78	4.57	5.15	5.73
Modified POR: 63	20-min	0.59	0.84	1.01	1.22	1.38	1.53	1.78	2.53	3.03	3.66	4.13	4.59
Type: 2nd Order	25-min	0.63	0.90	1.08	1.30	1.46	1.63	1.52	2.16	2.58	3.12	3.51	3.91
	30-min	0.67	0.95	1.14	1.38	1.55	1.73	1.34	1.91	2.28	2.75	3.11	3.45
	35-min	0.69	0.98	1.17	1.41	1.59	1.77	1.18	1.68	2.01	2.42	2.73	3.04
	40-min	0.71	1.00	1.20	1.45	1.63	1.82	1.06	1.51	1.80	2.18	2.45	2.73
	45-min	0.72	1.03	1.23	1.49	1.68	1.86	0.96	1.37	1.64	1.98	2.23	2.49
	50-min	0.74	1.05	1.25	1.51	1.71	1.90	0.88	1.26	1.50	1.82	2.05	2.28
	55-min	0.75	1.06	1.27	1.54	1.73	1.93	0.82	1.16	1.39	1.68	1.89	2.11
	1-hr	0.76	1.08	1.30	1.56	1.76	1.96	0.76	1.08	1.30	1.56	1.76	1.96
	2-hr	0.88	1.29	1.56	1.89	2.15	2.40	0.44	0.64	0.78	0.95	1.07	1.20
	3-hr	0.97	1.42	1.71	2.09	2.36	2.64	0.32	0.47	0.57	0.70	0.79	0.88
	6-hr	1.14	1.62	1.94	2.33	2.63	2.92	0.19	0.27	0.32	0.39	0.44	0.49
	12-hr	1.31	1.79	2.12	2.52	2.83	3.13	0.11	0.15	0.18	0.21	0.24	0.26
	24-hr	1.50	2.02	2.37	2.81	3.13	3.46	0.063	0.084	0.099	0.117	0.131	0.144
Browning	5-min	0.23	0.32	0.37	0.45	0.50	0.56	2.73	3.79	4.50	5.38	6.04	6.70
COOP: 241202	10-min	0.33	0.46	0.55	0.66	0.74	0.82	2.00	2.78	3.29	3.94	4.42	4.90
Elev: 4,355 ft	15-min	0.41	0.56	0.67	0.80	0.90	0.99	1.62	2.25	2.67	3.20	3.59	3.98
Modified POR: 53	20-min	0.43	0.60	0.71	0.85	0.96	1.06	1.30	1.80	2.14	2.56	2.87	3.19
Type: 2nd Order	25-min	0.46	0.64	0.76	0.91	1.02	1.13	1.11	1.54	1.82	2.18	2.45	2.71
	30-min	0.49	0.68	0.80	0.96	1.08	1.20	0.98	1.36	1.61	1.93	2.16	2.40
	35-min	0.50	0.70	0.83	0.99	1.11	1.23	0.86	1.19	1.42	1.69	1.90	2.11
	40-min	0.51	0.71	0.85	1.01	1.14	1.26	0.77	1.07	1.27	1.52	1.71	1.89
	45-min	0.53	0.73	0.87	1.04	1.17	1.29	0.70	0.98	1.16	1.39	1.56	1.72
	50-min	0.54	0.75	0.88	1.06	1.19	1.32	0.64	0.89	1.06	1.27	1.42	1.58
	55-min	0.55	0.76	0.90	1.08	1.21	1.34	0.60	0.83	0.98	1.17	1.32	1.46
	1-hr	0.56	0.77	0.91	1.09	1.23	1.36	0.56	0.77	0.91	1.09	1.23	1.36
	2-hr	0.69	0.94	1.10	1.31	1.46	1.62	0.35	0.47	0.55	0.66	0.73	0.81
	3-hr	0.82	1.10	1.28	1.52	1.69	1.86	0.27	0.37	0.43	0.51	0.56	0.62
	6-hr	1.12	1.50	1.75	2.07	2.31	2.54	0.19	0.25	0.29	0.35	0.38	0.42
	12-hr	1.52	2.13	2.53	3.04	3.42	3.79	0.13	0.18	0.21	0.25	0.28	0.32
	24-hr	1.95	2.88	3.50	4.28	4.85	5.43	0.081	0.120	0.146	0.178	0.202	0.226

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Butte-8S	5-min	0.19	0.28	0.33	0.40	0.45	0.50	2.32	3.32	3.98	4.82	5.44	6.05
COOP: 241309	10-min	0.28	0.40	0.49	0.59	0.66	0.74	1.70	2.43	2.91	3.52	3.98	4.43
Elev: 5,700 ft	15-min	0.34	0.49	0.59	0.71	0.81	0.90	1.38	1.97	2.36	2.86	3.23	3.59
Modified POR: 56	20-min	0.37	0.53	0.63	0.76	0.86	0.96	1.10	1.58	1.89	2.29	2.59	2.88
Type: 2nd Order	25-min	0.39	0.56	0.67	0.81	0.92	1.02	0.94	1.34	1.61	1.95	2.20	2.45
	30-min	0.41	0.59	0.71	0.86	0.97	1.08	0.83	1.19	1.42	1.72	1.94	2.17
	35-min	0.43	0.61	0.73	0.88	1.00	1.11	0.73	1.04	1.25	1.52	1.71	1.91
	40-min	0.44	0.62	0.75	0.91	1.02	1.14	0.65	0.94	1.12	1.36	1.54	1.71
	45-min	0.45	0.64	0.77	0.93	1.05	1.17	0.60	0.85	1.02	1.24	1.40	1.56
	50-min	0.46	0.65	0.78	0.95	1.07	1.19	0.55	0.78	0.94	1.14	1.28	1.43
	55-min	0.46	0.66	0.80	0.96	1.09	1.21	0.51	0.72	0.87	1.05	1.19	1.32
	1-hr	0.47	0.67	0.81	0.98	1.11	1.23	0.47	0.67	0.81	0.98	1.11	1.23
	2-hr	0.55	0.77	0.92	1.11	1.25	1.38	0.28	0.39	0.46	0.55	0.62	0.69
	3-hr	0.63	0.83	0.97	1.14	1.26	1.39	0.21	0.28	0.32	0.38	0.42	0.46
	6-hr	0.76	0.95	1.08	1.24	1.35	1.47	0.13	0.16	0.18	0.21	0.23	0.24
	12-hr	1.02	1.30	1.49	1.72	1.90	2.07	0.09	0.11	0.12	0.14	0.16	0.17
	24-hr	1.26	1.52	1.70	1.92	2.08	2.24	0.052	0.063	0.071	0.080	0.087	0.093
Cameron	5-min	0.17	0.27	0.33	0.41	0.47	0.53	2.07	3.22	3.98	4.94	5.65	6.35
COOP: 241408	10-min	0.25	0.39	0.49	0.60	0.69	0.77	1.52	2.36	2.91	3.61	4.13	4.65
Elev: 5,505 ft	15-min	0.31	0.48	0.59	0.73	0.84	0.94	1.23	1.91	2.36	2.93	3.35	3.77
Modified POR: 44	20-min	0.33	0.51	0.63	0.78	0.90	1.01	0.99	1.53	1.89	2.35	2.69	3.02
Type: 2nd Order	25-min	0.35	0.54	0.67	0.83	0.95	1.07	0.84	1.30	1.61	2.00	2.29	2.57
	30-min	0.37	0.58	0.71	0.88	1.01	1.14	0.74	1.15	1.42	1.77	2.02	2.27
	35-min	0.38	0.59	0.73	0.91	1.04	1.17	0.65	1.01	1.25	1.55	1.78	2.00
	40-min	0.39	0.61	0.75	0.93	1.06	1.20	0.59	0.91	1.12	1.39	1.60	1.79
	45-min	0.40	0.62	0.77	0.95	1.09	1.23	0.53	0.83	1.02	1.27	1.45	1.64
	50-min	0.41	0.63	0.78	0.97	1.11	1.25	0.49	0.76	0.94	1.16	1.33	1.50
	55-min	0.41	0.64	0.79	0.99	1.13	1.27	0.45	0.70	0.87	1.08	1.23	1.38
	1-hr	0.42	0.65	0.81	1.00	1.15	1.29	0.42	0.65	0.81	1.00	1.15	1.29
	2-hr	0.49	0.73	0.89	1.09	1.24	1.39	0.24	0.36	0.44	0.55	0.62	0.70
	3-hr	0.60	0.89	1.08	1.32	1.50	1.67	0.20	0.30	0.36	0.44	0.50	0.56
	6-hr	0.77	1.06	1.25	1.49	1.66	1.84	0.13	0.18	0.21	0.25	0.28	0.31
	12-hr	0.97	1.25	1.43	1.67	1.84	2.01	0.08	0.10	0.12	0.14	0.15	0.17
	24-hr	1.16	1.43	1.61	1.84	2.01	2.18	0.048	0.060	0.067	0.077	0.084	0.091

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Cardwell	5-min	0.17	0.23	0.28	0.33	0.37	0.41	2.05	2.82	3.32	3.96	4.44	4.91
COOP: 241500	10-min	0.25	0.34	0.41	0.48	0.54	0.60	1.50	2.06	2.43	2.90	3.25	3.59
Elev: 4,270 ft	15-min	0.30	0.42	0.49	0.59	0.66	0.73	1.22	1.67	1.97	2.35	2.63	2.91
Modified POR: 30	20-min	0.33	0.45	0.53	0.63	0.70	0.78	0.98	1.34	1.58	1.88	2.11	2.33
Type: 2nd Order	25-min	0.35	0.48	0.56	0.67	0.75	0.83	0.83	1.14	1.35	1.60	1.80	1.99
	30-min	0.37	0.50	0.59	0.71	0.79	0.88	0.73	1.01	1.19	1.42	1.59	1.76
	35-min	0.38	0.52	0.61	0.73	0.81	0.90	0.65	0.89	1.05	1.25	1.40	1.54
	40-min	0.39	0.53	0.63	0.75	0.84	0.92	0.58	0.80	0.94	1.12	1.25	1.39
	45-min	0.40	0.54	0.64	0.77	0.86	0.95	0.53	0.73	0.86	1.02	1.14	1.26
	50-min	0.40	0.55	0.65	0.78	0.87	0.96	0.48	0.66	0.78	0.93	1.05	1.16
	55-min	0.41	0.56	0.66	0.79	0.89	0.98	0.45	0.61	0.72	0.86	0.97	1.07
	1-hr	0.42	0.57	0.68	0.81	0.90	1.00	0.42	0.57	0.68	0.81	0.90	1.00
	2-hr	0.51	0.69	0.81	0.97	1.08	1.19	0.26	0.35	0.41	0.48	0.54	0.60
	3-hr	0.60	0.79	0.92	1.08	1.20	1.31	0.20	0.26	0.31	0.36	0.40	0.44
	6-hr	0.78	0.97	1.10	1.26	1.38	1.49	0.13	0.16	0.18	0.21	0.23	0.25
	12-hr	1.00	1.19	1.31	1.47	1.59	1.71	0.08	0.10	0.11	0.12	0.13	0.14
	24-hr	1.20	1.41	1.55	1.73	1.86	1.99	0.050	0.059	0.065	0.072	0.078	0.083
Choteau	5-min	0.24	0.33	0.39	0.47	0.53	0.59	2.85	3.98	4.73	5.68	6.38	7.08
COOP: 241737	10-min	0.35	0.49	0.58	0.69	0.78	0.86	2.08	2.91	3.46	4.16	4.67	5.18
Elev: 3,845 ft	15-min	0.42	0.59	0.70	0.84	0.95	1.05	1.69	2.36	2.81	3.37	3.79	4.20
Modified POR: 68	20-min	0.45	0.63	0.75	0.90	1.01	1.12	1.35	1.89	2.25	2.70	3.04	3.37
Type: 2nd Order	25-min	0.48	0.67	0.80	0.96	1.08	1.19	1.15	1.61	1.92	2.30	2.58	2.87
	30-min	0.51	0.71	0.85	1.02	1.14	1.27	1.02	1.42	1.69	2.03	2.28	2.53
	35-min	0.52	0.73	0.87	1.04	1.17	1.30	0.90	1.25	1.49	1.79	2.01	2.23
	40-min	0.54	0.75	0.89	1.07	1.20	1.33	0.80	1.12	1.34	1.60	1.80	2.00
	45-min	0.55	0.77	0.91	1.10	1.23	1.37	0.73	1.03	1.22	1.46	1.64	1.82
	50-min	0.56	0.78	0.93	1.12	1.25	1.39	0.67	0.94	1.12	1.34	1.51	1.67
	55-min	0.57	0.80	0.95	1.14	1.28	1.42	0.62	0.87	1.03	1.24	1.39	1.54
	1-hr	0.58	0.81	0.96	1.15	1.30	1.44	0.58	0.81	0.96	1.15	1.30	1.44
	2-hr	0.67	0.91	1.06	1.25	1.40	1.54	0.34	0.45	0.53	0.63	0.70	0.77
	3-hr	0.76	0.99	1.14	1.34	1.48	1.62	0.25	0.33	0.38	0.45	0.49	0.54
	6-hr	0.92	1.17	1.34	1.54	1.70	1.85	0.15	0.20	0.22	0.26	0.28	0.31
	12-hr	1.16	1.53	1.77	2.08	2.30	2.53	0.10	0.13	0.15	0.17	0.19	0.21
	24-hr	1.45	2.02	2.39	2.86	3.21	3.56	0.061	0.084	0.100	0.119	0.134	0.148

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Clark Canyon Dam	5-min	0.18	0.24	0.28	0.33	0.37	0.41	2.21	2.93	3.40	4.00	4.45	4.89
COOP: 241781	10-min	0.27	0.36	0.42	0.49	0.54	0.60	1.62	2.14	2.49	2.93	3.25	3.58
Elev: 5,580 ft	15-min	0.33	0.43	0.50	0.59	0.66	0.73	1.31	1.74	2.02	2.38	2.64	2.90
Modified POR: 43	20-min	0.35	0.46	0.54	0.63	0.71	0.77	1.05	1.39	1.62	1.90	2.12	2.32
Type: 2nd Order	25-min	0.37	0.49	0.57	0.68	0.75	0.82	0.90	1.19	1.38	1.62	1.80	1.98
	30-min	0.40	0.52	0.61	0.72	0.80	0.87	0.79	1.05	1.22	1.43	1.59	1.75
	35-min	0.41	0.54	0.62	0.73	0.82	0.90	0.70	0.92	1.07	1.26	1.40	1.54
	40-min	0.42	0.55	0.64	0.75	0.84	0.92	0.63	0.83	0.96	1.13	1.26	1.38
	45-min	0.43	0.57	0.66	0.77	0.86	0.94	0.57	0.75	0.88	1.03	1.14	1.26
	50-min	0.43	0.58	0.67	0.79	0.87	0.96	0.52	0.69	0.80	0.94	1.05	1.15
	55-min	0.44	0.59	0.68	0.80	0.89	0.98	0.48	0.64	0.74	0.87	0.97	1.07
	1-hr	0.45	0.60	0.69	0.81	0.90	0.99	0.45	0.60	0.69	0.81	0.90	0.99
	2-hr	0.55	0.72	0.83	0.97	1.07	1.18	0.28	0.36	0.41	0.48	0.54	0.59
	3-hr	0.61	0.78	0.89	1.04	1.14	1.25	0.20	0.26	0.30	0.35	0.38	0.42
	6-hr	0.77	0.97	1.11	1.28	1.41	1.53	0.13	0.16	0.18	0.21	0.23	0.26
	12-hr	0.92	1.16	1.33	1.54	1.69	1.84	0.08	0.10	0.11	0.13	0.14	0.15
	24-hr	1.15	1.42	1.60	1.82	1.99	2.16	0.048	0.059	0.066	0.076	0.083	0.090
Cohagen	5-min	0.29	0.40	0.47	0.55	0.62	0.68	3.54	4.78	5.61	6.65	7.42	8.19
COOP: 241875	10-min	0.43	0.58	0.68	0.81	0.90	1.00	2.59	3.50	4.10	4.86	5.43	5.99
Elev: 2,727 ft	15-min	0.52	0.71	0.83	0.99	1.10	1.21	2.10	2.84	3.33	3.95	4.40	4.86
Modified POR: 41	20-min	0.56	0.76	0.89	1.05	1.18	1.30	1.68	2.27	2.67	3.16	3.53	3.89
Type: 2nd Order	25-min	0.60	0.81	0.95	1.12	1.25	1.38	1.43	1.94	2.27	2.69	3.00	3.31
	30-min	0.63	0.86	1.00	1.19	1.33	1.46	1.27	1.71	2.01	2.38	2.65	2.93
	35-min	0.65	0.88	1.03	1.22	1.36	1.50	1.11	1.51	1.76	2.09	2.34	2.58
	40-min	0.67	0.90	1.06	1.25	1.40	1.54	1.00	1.35	1.58	1.88	2.10	2.31
	45-min	0.68	0.92	1.08	1.28	1.43	1.58	0.91	1.23	1.44	1.71	1.91	2.11
	50-min	0.70	0.94	1.10	1.31	1.46	1.61	0.83	1.13	1.32	1.57	1.75	1.93
	55-min	0.71	0.96	1.12	1.33	1.48	1.64	0.77	1.04	1.22	1.45	1.62	1.79
	1-hr	0.72	0.97	1.14	1.35	1.51	1.66	0.72	0.97	1.14	1.35	1.51	1.66
	2-hr	0.80	1.08	1.27	1.51	1.69	1.86	0.40	0.54	0.64	0.76	0.84	0.93
	3-hr	0.87	1.15	1.34	1.58	1.75	1.93	0.29	0.38	0.45	0.53	0.58	0.64
	6-hr	1.05	1.38	1.61	1.89	2.10	2.31	0.17	0.23	0.27	0.32	0.35	0.38
	12-hr	1.27	1.64	1.88	2.19	2.42	2.65	0.11	0.14	0.16	0.18	0.20	0.22
	24-hr	1.54	2.01	2.31	2.70	2.99	3.28	0.064	0.084	0.096	0.113	0.125	0.137

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Content-3SSE	5-min	0.34	0.51	0.62	0.76	0.87	0.97	4.07	6.10	7.45	9.15	10.41	11.66
COOP: 241984	10-min	0.50	0.74	0.91	1.12	1.27	1.42	2.98	4.46	5.45	6.69	7.62	8.53
Elev: 2,260 ft	15-min	0.60	0.91	1.11	1.36	1.54	1.73	2.41	3.62	4.42	5.43	6.18	6.92
Modified POR: 50	20-min	0.64	0.97	1.18	1.45	1.65	1.85	1.93	2.90	3.54	4.35	4.95	5.55
Type: 2nd Order	25-min	0.69	1.03	1.26	1.54	1.76	1.97	1.65	2.47	3.02	3.70	4.22	4.72
	30-min	0.73	1.09	1.33	1.64	1.86	2.09	1.46	2.18	2.66	3.27	3.72	4.17
	35-min	0.75	1.12	1.37	1.68	1.91	2.14	1.28	1.92	2.34	2.88	3.28	3.67
	40-min	0.77	1.15	1.40	1.72	1.96	2.20	1.15	1.72	2.10	2.58	2.94	3.30
	45-min	0.79	1.18	1.44	1.77	2.01	2.25	1.05	1.57	1.92	2.36	2.68	3.00
	50-min	0.80	1.20	1.46	1.80	2.05	2.29	0.96	1.44	1.76	2.16	2.45	2.75
	55-min	0.81	1.22	1.49	1.83	2.08	2.33	0.89	1.33	1.62	1.99	2.27	2.54
	1-hr	0.83	1.24	1.51	1.86	2.12	2.37	0.83	1.24	1.51	1.86	2.12	2.37
	2-hr	0.93	1.35	1.62	1.97	2.23	2.49	0.47	0.67	0.81	0.99	1.12	1.24
	3-hr	1.01	1.43	1.71	2.07	2.33	2.59	0.34	0.48	0.57	0.69	0.78	0.86
	6-hr	1.22	1.65	1.93	2.30	2.56	2.83	0.20	0.27	0.32	0.38	0.43	0.47
	12-hr	1.45	1.97	2.32	2.76	3.09	3.41	0.12	0.16	0.19	0.23	0.26	0.28
	24-hr	1.78	2.46	2.91	3.47	3.89	4.31	0.074	0.103	0.121	0.145	0.162	0.180
Cooke City-2W	5-min	0.18	0.25	0.30	0.36	0.40	0.45	2.12	2.99	3.57	4.30	4.85	5.38
COOP: 241995	10-min	0.26	0.36	0.44	0.52	0.59	0.66	1.55	2.19	2.61	3.15	3.55	3.94
Elev: 7,424 ft	15-min	0.31	0.44	0.53	0.64	0.72	0.80	1.26	1.78	2.12	2.55	2.88	3.20
Modified POR: 24	20-min	0.34	0.47	0.57	0.68	0.77	0.85	1.01	1.42	1.70	2.05	2.30	2.56
Type: 2nd Order	25-min	0.36	0.50	0.60	0.73	0.82	0.91	0.86	1.21	1.45	1.74	1.96	2.18
	30-min	0.38	0.54	0.64	0.77	0.87	0.96	0.76	1.07	1.28	1.54	1.73	1.93
	35-min	0.39	0.55	0.66	0.79	0.89	0.99	0.67	0.94	1.12	1.35	1.53	1.69
	40-min	0.40	0.56	0.67	0.81	0.91	1.01	0.60	0.85	1.01	1.22	1.37	1.52
	45-min	0.41	0.58	0.69	0.83	0.94	1.04	0.54	0.77	0.92	1.11	1.25	1.39
	50-min	0.42	0.59	0.70	0.85	0.95	1.06	0.50	0.71	0.84	1.01	1.14	1.27
	55-min	0.42	0.60	0.71	0.86	0.97	1.08	0.46	0.65	0.78	0.94	1.06	1.17
	1-hr	0.43	0.61	0.73	0.87	0.98	1.09	0.43	0.61	0.73	0.87	0.98	1.09
	2-hr	0.53	0.73	0.86	1.02	1.14	1.26	0.27	0.36	0.43	0.51	0.57	0.63
	3-hr	0.62	0.84	0.98	1.16	1.29	1.43	0.21	0.28	0.33	0.39	0.43	0.48
	6-hr	0.81	1.05	1.21	1.41	1.56	1.71	0.14	0.18	0.20	0.24	0.26	0.28
	12-hr	1.00	1.27	1.45	1.67	1.84	2.01	0.08	0.11	0.12	0.14	0.15	0.17
	24-hr	1.26	1.66	1.92	2.26	2.51	2.75	0.053	0.069	0.080	0.094	0.104	0.115

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Custer	5-min	0.26	0.42	0.52	0.66	0.76	0.85	3.11	5.02	6.28	7.88	9.07	10.24
COOP: 242158	10-min	0.38	0.61	0.77	0.96	1.11	1.25	2.28	3.67	4.60	5.77	6.63	7.49
Elev: 2,884 ft	15-min	0.46	0.74	0.93	1.17	1.35	1.52	1.85	2.98	3.73	4.68	5.38	6.08
Modified POR: 22	20-min	0.49	0.80	1.00	1.25	1.44	1.62	1.48	2.39	2.99	3.75	4.31	4.87
Type: 2nd Order	25-min	0.52	0.85	1.06	1.33	1.53	1.73	1.26	2.03	2.54	3.19	3.67	4.15
	30-min	0.56	0.90	1.12	1.41	1.62	1.83	1.11	1.80	2.25	2.82	3.24	3.66
	35-min	0.57	0.92	1.15	1.45	1.66	1.88	0.98	1.58	1.98	2.48	2.85	3.22
	40-min	0.59	0.95	1.18	1.48	1.71	1.93	0.88	1.42	1.78	2.23	2.56	2.89
	45-min	0.60	0.97	1.21	1.52	1.75	1.98	0.80	1.29	1.62	2.03	2.33	2.64
	50-min	0.61	0.99	1.23	1.55	1.78	2.01	0.73	1.18	1.48	1.86	2.14	2.41
	55-min	0.62	1.00	1.26	1.58	1.81	2.05	0.68	1.09	1.37	1.72	1.98	2.23
	1-hr	0.63	1.02	1.28	1.60	1.84	2.08	0.63	1.02	1.28	1.60	1.84	2.08
	2-hr	0.74	1.11	1.36	1.67	1.90	2.13	0.37	0.56	0.68	0.84	0.95	1.07
	3-hr	0.87	1.26	1.52	1.85	2.10	2.34	0.29	0.42	0.51	0.62	0.70	0.78
	6-hr	1.05	1.41	1.65	1.95	2.18	2.40	0.17	0.23	0.27	0.33	0.36	0.40
	12-hr	1.28	1.64	1.87	2.17	2.40	2.62	0.11	0.14	0.16	0.18	0.20	0.22
	24-hr	1.53	1.99	2.30	2.68	2.97	3.25	0.064	0.083	0.096	0.112	0.124	0.136
Cut Bank Airport	5-min	0.19	0.28	0.33	0.41	0.46	0.51	2.29	3.32	4.00	4.87	5.51	6.15
COOP: 242173	10-min	0.28	0.40	0.49	0.59	0.67	0.75	1.67	2.43	2.93	3.56	4.03	4.50
Elev: 3,838 ft	15-min	0.34	0.49	0.59	0.72	0.82	0.91	1.36	1.97	2.38	2.89	3.27	3.65
Modified POR: 57	20-min	0.36	0.53	0.63	0.77	0.87	0.97	1.09	1.58	1.90	2.32	2.62	2.92
Type: 2nd Order	25-min	0.39	0.56	0.68	0.82	0.93	1.04	0.93	1.34	1.62	1.97	2.23	2.49
	30-min	0.41	0.59	0.72	0.87	0.99	1.10	0.82	1.19	1.43	1.74	1.97	2.20
	35-min	0.42	0.61	0.74	0.89	1.01	1.13	0.72	1.04	1.26	1.53	1.73	1.94
	40-min	0.43	0.63	0.75	0.92	1.04	1.16	0.65	0.94	1.13	1.38	1.56	1.74
	45-min	0.44	0.64	0.77	0.94	1.06	1.19	0.59	0.85	1.03	1.25	1.42	1.58
	50-min	0.45	0.65	0.79	0.96	1.08	1.21	0.54	0.78	0.94	1.15	1.30	1.45
	55-min	0.46	0.66	0.80	0.97	1.10	1.23	0.50	0.72	0.87	1.06	1.20	1.34
	1-hr	0.46	0.67	0.81	0.99	1.12	1.25	0.46	0.67	0.81	0.99	1.12	1.25
	2-hr	0.56	0.77	0.91	1.09	1.23	1.36	0.28	0.39	0.46	0.55	0.61	0.68
	3-hr	0.65	0.88	1.04	1.23	1.38	1.52	0.22	0.29	0.35	0.41	0.46	0.51
	6-hr	0.85	1.08	1.23	1.43	1.57	1.71	0.14	0.18	0.21	0.24	0.26	0.28
	12-hr	1.13	1.43	1.62	1.87	2.06	2.24	0.09	0.12	0.14	0.16	0.17	0.19
	24-hr	1.44	1.80	2.04	2.34	2.57	2.79	0.060	0.075	0.085	0.098	0.107	0.116

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Darby	5-min	0.16	0.24	0.29	0.36	0.41	0.46	1.97	2.91	3.53	4.31	4.89	5.47
COOP: 242221	10-min	0.24	0.35	0.43	0.53	0.60	0.67	1.44	2.13	2.58	3.15	3.58	4.00
Elev: 3,880 ft	15-min	0.29	0.43	0.52	0.64	0.73	0.81	1.17	1.72	2.09	2.56	2.90	3.24
Modified POR: 35	20-min	0.31	0.46	0.56	0.68	0.78	0.87	0.94	1.38	1.68	2.05	2.33	2.60
Type: 2nd Order	25-min	0.33	0.49	0.59	0.73	0.82	0.92	0.80	1.18	1.43	1.74	1.98	2.21
	30-min	0.35	0.52	0.63	0.77	0.87	0.98	0.70	1.04	1.26	1.54	1.75	1.96
	35-min	0.36	0.53	0.65	0.79	0.90	1.00	0.62	0.91	1.11	1.36	1.54	1.72
	40-min	0.37	0.55	0.66	0.81	0.92	1.03	0.56	0.82	1.00	1.22	1.38	1.54
	45-min	0.38	0.56	0.68	0.83	0.94	1.06	0.51	0.75	0.91	1.11	1.26	1.41
	50-min	0.39	0.57	0.69	0.85	0.96	1.07	0.46	0.69	0.83	1.02	1.15	1.29
	55-min	0.39	0.58	0.70	0.86	0.98	1.09	0.43	0.63	0.77	0.94	1.07	1.19
	1-hr	0.40	0.59	0.72	0.88	0.99	1.11	0.40	0.59	0.72	0.88	0.99	1.11
	2-hr	0.47	0.63	0.74	0.87	0.97	1.07	0.24	0.32	0.37	0.44	0.49	0.54
	3-hr	0.53	0.70	0.81	0.96	1.06	1.16	0.18	0.23	0.27	0.32	0.35	0.39
	6-hr	0.72	0.87	0.96	1.09	1.18	1.27	0.12	0.14	0.16	0.18	0.20	0.21
	12-hr	0.94	1.10	1.20	1.33	1.43	1.52	0.08	0.09	0.10	0.11	0.12	0.13
	24-hr	1.18	1.40	1.55	1.74	1.88	2.02	0.049	0.059	0.065	0.073	0.079	0.084
Delphia	5-min	0.23	0.32	0.39	0.47	0.53	0.59	2.71	3.88	4.66	5.64	6.36	7.08
COOP: 242317	10-min	0.33	0.47	0.57	0.69	0.78	0.86	1.99	2.84	3.41	4.12	4.65	5.18
Elev: 3,061 ft	15-min	0.40	0.58	0.69	0.84	0.94	1.05	1.61	2.30	2.76	3.34	3.78	4.20
Modified POR: 28	20-min	0.43	0.62	0.74	0.89	1.01	1.12	1.29	1.85	2.22	2.68	3.03	3.37
Type: 2nd Order	25-min	0.46	0.66	0.79	0.95	1.07	1.19	1.10	1.57	1.89	2.28	2.58	2.87
	30-min	0.49	0.69	0.83	1.01	1.14	1.27	0.97	1.39	1.67	2.02	2.28	2.53
	35-min	0.50	0.71	0.86	1.03	1.17	1.30	0.85	1.22	1.47	1.77	2.00	2.23
	40-min	0.51	0.73	0.88	1.06	1.20	1.33	0.77	1.10	1.32	1.59	1.80	2.00
	45-min	0.52	0.75	0.90	1.09	1.23	1.37	0.70	1.00	1.20	1.45	1.64	1.82
	50-min	0.53	0.76	0.92	1.11	1.25	1.39	0.64	0.92	1.10	1.33	1.50	1.67
	55-min	0.54	0.78	0.93	1.13	1.27	1.42	0.59	0.85	1.02	1.23	1.39	1.54
	1-hr	0.55	0.79	0.95	1.15	1.29	1.44	0.55	0.79	0.95	1.15	1.29	1.44
	2-hr	0.67	0.88	1.02	1.20	1.34	1.47	0.33	0.44	0.51	0.60	0.67	0.73
	3-hr	0.73	0.96	1.12	1.31	1.46	1.60	0.24	0.32	0.37	0.44	0.49	0.53
	6-hr	0.86	1.11	1.28	1.49	1.65	1.80	0.14	0.19	0.21	0.25	0.27	0.30
	12-hr	1.06	1.38	1.60	1.87	2.07	2.28	0.09	0.12	0.13	0.16	0.17	0.19
	24-hr	1.41	1.89	2.21	2.60	2.90	3.19	0.059	0.079	0.092	0.108	0.121	0.133

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Dillon-9SSE	5-min	0.18	0.25	0.29	0.35	0.39	0.43	2.16	2.96	3.50	4.17	4.67	5.17
COOP: 242414	10-min	0.26	0.36	0.43	0.51	0.57	0.63	1.58	2.17	2.56	3.05	3.42	3.78
Elev: 5,500 ft	15-min	0.32	0.44	0.52	0.62	0.69	0.77	1.28	1.76	2.07	2.48	2.77	3.07
Modified POR: 58	20-min	0.34	0.47	0.55	0.66	0.74	0.82	1.03	1.41	1.66	1.98	2.22	2.46
Type: 2nd Order	25-min	0.36	0.50	0.59	0.70	0.79	0.87	0.87	1.20	1.42	1.69	1.89	2.09
	30-min	0.39	0.53	0.63	0.75	0.84	0.92	0.77	1.06	1.25	1.49	1.67	1.85
	35-min	0.40	0.54	0.64	0.77	0.86	0.95	0.68	0.93	1.10	1.31	1.47	1.63
	40-min	0.41	0.56	0.66	0.79	0.88	0.97	0.61	0.84	0.99	1.18	1.32	1.46
	45-min	0.42	0.57	0.68	0.81	0.90	1.00	0.56	0.76	0.90	1.07	1.20	1.33
	50-min	0.42	0.58	0.69	0.82	0.92	1.02	0.51	0.70	0.82	0.98	1.10	1.22
	55-min	0.43	0.59	0.70	0.83	0.93	1.03	0.47	0.65	0.76	0.91	1.02	1.13
	1-hr	0.44	0.60	0.71	0.85	0.95	1.05	0.44	0.60	0.71	0.85	0.95	1.05
	2-hr	0.52	0.71	0.85	1.01	1.14	1.26	0.26	0.36	0.42	0.51	0.57	0.63
	3-hr	0.58	0.79	0.92	1.09	1.22	1.35	0.19	0.26	0.31	0.36	0.41	0.45
	6-hr	0.78	1.01	1.15	1.34	1.48	1.62	0.13	0.17	0.19	0.22	0.25	0.27
	12-hr	0.99	1.21	1.35	1.53	1.67	1.80	0.08	0.10	0.11	0.13	0.14	0.15
	24-hr	1.23	1.48	1.64	1.85	2.00	2.15	0.051	0.062	0.068	0.077	0.083	0.090
Divide	5-min	0.18	0.25	0.30	0.36	0.41	0.45	2.17	3.05	3.62	4.35	4.89	5.43
COOP: 242421	10-min	0.27	0.37	0.44	0.53	0.60	0.66	1.59	2.23	2.65	3.18	3.58	3.97
Elev: 5,407 ft	15-min	0.32	0.45	0.54	0.65	0.73	0.81	1.29	1.81	2.15	2.58	2.90	3.22
Modified POR: 59	20-min	0.34	0.48	0.57	0.69	0.78	0.86	1.03	1.45	1.72	2.07	2.33	2.58
Type: 2nd Order	25-min	0.37	0.51	0.61	0.73	0.83	0.92	0.88	1.23	1.47	1.76	1.98	2.20
	30-min	0.39	0.54	0.65	0.78	0.87	0.97	0.78	1.09	1.30	1.56	1.75	1.94
	35-min	0.40	0.56	0.67	0.80	0.90	1.00	0.68	0.96	1.14	1.37	1.54	1.71
	40-min	0.41	0.57	0.68	0.82	0.92	1.02	0.61	0.86	1.02	1.23	1.38	1.53
	45-min	0.42	0.59	0.70	0.84	0.94	1.05	0.56	0.78	0.93	1.12	1.26	1.40
	50-min	0.43	0.60	0.71	0.85	0.96	1.07	0.51	0.72	0.85	1.03	1.15	1.28
	55-min	0.43	0.61	0.72	0.87	0.98	1.08	0.47	0.66	0.79	0.95	1.07	1.18
	1-hr	0.44	0.62	0.74	0.88	0.99	1.10	0.44	0.62	0.74	0.88	0.99	1.10
	2-hr	0.54	0.69	0.80	0.93	1.03	1.12	0.27	0.35	0.40	0.46	0.51	0.56
	3-hr	0.61	0.77	0.87	1.00	1.10	1.19	0.20	0.26	0.29	0.33	0.37	0.40
	6-hr	0.76	0.97	1.11	1.29	1.42	1.55	0.13	0.16	0.19	0.21	0.24	0.26
	12-hr	0.94	1.18	1.35	1.56	1.71	1.86	0.08	0.10	0.11	0.13	0.14	0.16
	24-hr	1.14	1.40	1.57	1.79	1.95	2.10	0.048	0.058	0.065	0.074	0.081	0.088

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Dodson-11N	5-min	0.27	0.38	0.46	0.55	0.62	0.69	3.25	4.60	5.50	6.62	7.46	8.29
COOP: 242441	10-min	0.40	0.56	0.67	0.81	0.91	1.01	2.38	3.37	4.02	4.85	5.46	6.07
Elev: 2,710 ft	15-min	0.48	0.68	0.82	0.98	1.11	1.23	1.93	2.73	3.26	3.93	4.43	4.92
Modified POR: 49	20-min	0.52	0.73	0.87	1.05	1.18	1.31	1.55	2.19	2.61	3.15	3.55	3.94
Type: 2nd Order	25-min	0.55	0.78	0.93	1.12	1.26	1.40	1.32	1.86	2.23	2.68	3.02	3.36
	30-min	0.58	0.82	0.98	1.18	1.33	1.48	1.16	1.65	1.97	2.37	2.67	2.97
	35-min	0.60	0.84	1.01	1.22	1.37	1.52	1.02	1.45	1.73	2.09	2.35	2.61
	40-min	0.61	0.87	1.04	1.25	1.41	1.56	0.92	1.30	1.55	1.87	2.11	2.34
	45-min	0.63	0.89	1.06	1.28	1.44	1.60	0.84	1.18	1.41	1.71	1.92	2.14
	50-min	0.64	0.90	1.08	1.30	1.47	1.63	0.77	1.09	1.30	1.56	1.76	1.96
	55-min	0.65	0.92	1.10	1.32	1.49	1.66	0.71	1.00	1.20	1.44	1.63	1.81
	1-hr	0.66	0.94	1.12	1.35	1.52	1.69	0.66	0.94	1.12	1.35	1.52	1.69
	2-hr	0.81	1.21	1.48	1.82	2.07	2.32	0.40	0.61	0.74	0.91	1.04	1.16
	3-hr	0.92	1.39	1.71	2.11	2.41	2.70	0.31	0.46	0.57	0.70	0.80	0.90
	6-hr	1.13	1.73	2.12	2.62	2.99	3.36	0.19	0.29	0.35	0.44	0.50	0.56
	12-hr	1.40	2.04	2.46	3.00	3.40	3.80	0.12	0.17	0.21	0.25	0.28	0.32
	24-hr	1.70	2.42	2.89	3.49	3.93	4.38	0.071	0.101	0.120	0.145	0.164	0.182
Dovetail	5-min	0.23	0.36	0.45	0.56	0.64	0.72	2.81	4.37	5.40	6.71	7.67	8.64
COOP: 242477	10-min	0.34	0.53	0.66	0.82	0.94	1.05	2.06	3.20	3.95	4.91	5.62	6.32
Elev: 2,743 ft	15-min	0.42	0.65	0.80	1.00	1.14	1.28	1.67	2.59	3.21	3.98	4.55	5.13
Modified POR: 28	20-min	0.45	0.69	0.86	1.06	1.22	1.37	1.34	2.08	2.57	3.19	3.65	4.11
Type: 2nd Order	25-min	0.47	0.74	0.91	1.13	1.29	1.46	1.14	1.77	2.19	2.72	3.11	3.50
	30-min	0.50	0.78	0.97	1.20	1.37	1.54	1.00	1.56	1.93	2.40	2.75	3.09
	35-min	0.52	0.80	0.99	1.23	1.41	1.59	0.88	1.38	1.70	2.11	2.42	2.72
	40-min	0.53	0.82	1.02	1.26	1.45	1.63	0.79	1.23	1.53	1.89	2.17	2.44
	45-min	0.54	0.84	1.04	1.30	1.48	1.67	0.72	1.12	1.39	1.73	1.98	2.22
	50-min	0.55	0.86	1.06	1.32	1.51	1.70	0.66	1.03	1.27	1.58	1.81	2.04
	55-min	0.56	0.87	1.08	1.34	1.53	1.73	0.61	0.95	1.18	1.46	1.67	1.88
	1-hr	0.57	0.89	1.10	1.36	1.56	1.76	0.57	0.89	1.10	1.36	1.56	1.76
	2-hr	0.71	1.14	1.43	1.79	2.06	2.33	0.35	0.57	0.71	0.90	1.03	1.16
	3-hr	0.81	1.29	1.61	2.01	2.31	2.61	0.27	0.43	0.54	0.67	0.77	0.87
	6-hr	1.00	1.63	2.05	2.57	2.96	3.35	0.17	0.27	0.34	0.43	0.49	0.56
	12-hr	1.21	2.05	2.61	3.31	3.84	4.35	0.10	0.17	0.22	0.28	0.32	0.36
	24-hr	1.49	2.45	3.09	3.89	4.49	5.08	0.062	0.102	0.129	0.162	0.187	0.212

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Drummond	5-min	0.18	0.26	0.31	0.38	0.42	0.47	2.15	3.09	3.71	4.50	5.09	5.67
COOP: 242500	10-min	0.26	0.38	0.45	0.55	0.62	0.69	1.57	2.26	2.72	3.29	3.72	4.15
Elev: 3,943 ft	15-min	0.32	0.46	0.55	0.67	0.75	0.84	1.27	1.83	2.20	2.67	3.02	3.36
Modified POR: 34	20-min	0.34	0.49	0.59	0.71	0.81	0.90	1.02	1.47	1.77	2.14	2.42	2.70
Type: 2nd Order	25-min	0.36	0.52	0.63	0.76	0.86	0.96	0.87	1.25	1.50	1.82	2.06	2.29
	30-min	0.38	0.55	0.66	0.81	0.91	1.01	0.77	1.11	1.33	1.61	1.82	2.03
	35-min	0.39	0.57	0.68	0.83	0.93	1.04	0.68	0.97	1.17	1.42	1.60	1.78
	40-min	0.40	0.58	0.70	0.85	0.96	1.07	0.61	0.87	1.05	1.27	1.44	1.60
	45-min	0.41	0.60	0.72	0.87	0.98	1.09	0.55	0.80	0.96	1.16	1.31	1.46
	50-min	0.42	0.61	0.73	0.88	1.00	1.11	0.51	0.73	0.88	1.06	1.20	1.34
	55-min	0.43	0.62	0.74	0.90	1.02	1.13	0.47	0.67	0.81	0.98	1.11	1.24
	1-hr	0.44	0.63	0.75	0.92	1.03	1.15	0.44	0.63	0.75	0.92	1.03	1.15
	2-hr	0.51	0.67	0.78	0.91	1.01	1.11	0.26	0.34	0.39	0.46	0.51	0.56
	3-hr	0.61	0.74	0.84	0.95	1.04	1.12	0.20	0.25	0.28	0.32	0.35	0.37
	6-hr	0.74	0.91	1.02	1.15	1.25	1.35	0.12	0.15	0.17	0.19	0.21	0.23
	12-hr	0.96	1.16	1.29	1.46	1.58	1.70	0.08	0.10	0.11	0.12	0.13	0.14
	24-hr	1.19	1.43	1.58	1.78	1.93	2.07	0.050	0.059	0.066	0.074	0.080	0.086
Dupuyer	5-min	0.19	0.31	0.39	0.49	0.57	0.64	2.27	3.73	4.70	5.92	6.83	7.73
COOP: 242571	10-min	0.28	0.45	0.57	0.72	0.83	0.94	1.66	2.73	3.44	4.33	5.00	5.66
Elev: 4,134 ft	15-min	0.34	0.55	0.70	0.88	1.01	1.15	1.35	2.21	2.79	3.52	4.05	4.59
Modified POR: 25	20-min	0.36	0.59	0.75	0.94	1.08	1.23	1.08	1.77	2.24	2.82	3.25	3.68
Type: 2nd Order	25-min	0.38	0.63	0.79	1.00	1.15	1.30	0.92	1.51	1.90	2.40	2.77	3.13
	30-min	0.41	0.67	0.84	1.06	1.22	1.38	0.81	1.33	1.68	2.12	2.44	2.77
	35-min	0.42	0.69	0.86	1.09	1.25	1.42	0.71	1.17	1.48	1.86	2.15	2.43
	40-min	0.43	0.70	0.89	1.12	1.29	1.46	0.64	1.05	1.33	1.67	1.93	2.18
	45-min	0.44	0.72	0.91	1.14	1.32	1.49	0.58	0.96	1.21	1.53	1.76	1.99
	50-min	0.45	0.73	0.92	1.16	1.34	1.52	0.53	0.88	1.11	1.40	1.61	1.82
	55-min	0.45	0.75	0.94	1.18	1.37	1.55	0.49	0.81	1.02	1.29	1.49	1.69
	1-hr	0.46	0.76	0.96	1.20	1.39	1.57	0.46	0.76	0.96	1.20	1.39	1.57
	2-hr	0.61	0.95	1.17	1.45	1.66	1.87	0.31	0.47	0.59	0.73	0.83	0.93
	3-hr	0.73	1.09	1.33	1.63	1.85	2.07	0.24	0.36	0.44	0.54	0.62	0.69
	6-hr	0.99	1.37	1.63	1.95	2.19	2.43	0.16	0.23	0.27	0.33	0.37	0.40
	12-hr	1.40	2.01	2.42	2.93	3.31	3.69	0.12	0.17	0.20	0.24	0.28	0.31
	24-hr	1.89	2.98	3.69	4.60	5.27	5.94	0.079	0.124	0.154	0.192	0.220	0.247

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Dutton-6E	5-min	0.24	0.36	0.44	0.54	0.62	0.69	2.91	4.35	5.31	6.51	7.41	8.30
COOP: 242584	10-min	0.35	0.53	0.65	0.79	0.90	1.01	2.13	3.18	3.88	4.77	5.42	6.07
Elev: 3,594 ft	15-min	0.43	0.65	0.79	0.97	1.10	1.23	1.73	2.58	3.15	3.87	4.40	4.92
Modified POR: 57	20-min	0.46	0.69	0.84	1.03	1.17	1.32	1.38	2.07	2.52	3.10	3.52	3.95
Type: 2nd Order	25-min	0.49	0.73	0.90	1.10	1.25	1.40	1.18	1.76	2.15	2.64	3.00	3.36
	30-min	0.52	0.78	0.95	1.16	1.33	1.48	1.04	1.56	1.90	2.33	2.65	2.97
	35-min	0.53	0.80	0.97	1.20	1.36	1.52	0.92	1.37	1.67	2.05	2.33	2.61
	40-min	0.55	0.82	1.00	1.23	1.40	1.56	0.82	1.23	1.50	1.84	2.09	2.34
	45-min	0.56	0.84	1.02	1.26	1.43	1.60	0.75	1.12	1.37	1.68	1.91	2.14
	50-min	0.57	0.86	1.04	1.28	1.46	1.63	0.69	1.03	1.25	1.54	1.75	1.96
	55-min	0.58	0.87	1.06	1.30	1.48	1.66	0.63	0.95	1.16	1.42	1.62	1.81
	1-hr	0.59	0.88	1.08	1.32	1.51	1.69	0.59	0.88	1.08	1.32	1.51	1.69
	2-hr	0.71	1.01	1.22	1.47	1.66	1.85	0.35	0.51	0.61	0.73	0.83	0.92
	3-hr	0.81	1.11	1.30	1.55	1.74	1.92	0.27	0.37	0.43	0.52	0.58	0.64
	6-hr	1.04	1.39	1.62	1.91	2.12	2.33	0.17	0.23	0.27	0.32	0.35	0.39
	12-hr	1.36	1.76	2.02	2.36	2.60	2.85	0.11	0.15	0.17	0.20	0.22	0.24
	24-hr	1.73	2.24	2.58	3.01	3.33	3.64	0.072	0.093	0.108	0.125	0.139	0.152
Ekalaka	5-min	0.33	0.42	0.48	0.56	0.62	0.67	3.97	5.07	5.79	6.72	7.40	8.08
COOP: 242689	10-min	0.48	0.62	0.71	0.82	0.90	0.98	2.90	3.71	4.24	4.91	5.41	5.91
Elev: 3,426 ft	15-min	0.59	0.75	0.86	1.00	1.10	1.20	2.35	3.01	3.44	3.99	4.39	4.79
Modified POR: 54	20-min	0.63	0.80	0.92	1.06	1.17	1.28	1.89	2.41	2.76	3.19	3.52	3.84
Type: 2nd Order	25-min	0.67	0.85	0.98	1.13	1.25	1.36	1.61	2.05	2.35	2.72	3.00	3.27
	30-min	0.71	0.91	1.04	1.20	1.32	1.44	1.42	1.81	2.07	2.40	2.65	2.89
	35-min	0.73	0.93	1.06	1.23	1.36	1.48	1.25	1.59	1.82	2.11	2.33	2.54
	40-min	0.75	0.95	1.09	1.26	1.39	1.52	1.12	1.43	1.64	1.90	2.09	2.28
	45-min	0.77	0.98	1.12	1.30	1.43	1.56	1.02	1.30	1.49	1.73	1.90	2.08
	50-min	0.78	1.00	1.14	1.32	1.45	1.59	0.94	1.19	1.37	1.58	1.74	1.90
	55-min	0.79	1.01	1.16	1.34	1.48	1.61	0.86	1.10	1.26	1.46	1.61	1.76
	1-hr	0.81	1.03	1.18	1.36	1.50	1.64	0.81	1.03	1.18	1.36	1.50	1.64
	2-hr	0.90	1.19	1.39	1.63	1.81	1.99	0.45	0.60	0.69	0.82	0.91	1.00
	3-hr	0.99	1.29	1.49	1.75	1.94	2.13	0.33	0.43	0.50	0.58	0.65	0.71
	6-hr	1.19	1.53	1.75	2.04	2.25	2.46	0.20	0.25	0.29	0.34	0.37	0.41
	12-hr	1.44	1.85	2.13	2.47	2.73	2.98	0.12	0.15	0.18	0.21	0.23	0.25
	24-hr	1.81	2.34	2.69	3.14	3.46	3.79	0.076	0.098	0.112	0.131	0.144	0.158

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Elkhorn Hot Springs	5-min	0.15	0.18	0.21	0.24	0.26	0.28	1.79	2.21	2.49	2.85	3.11	3.38
COOP: 242719	10-min	0.22	0.27	0.30	0.35	0.38	0.41	1.31	1.62	1.83	2.09	2.28	2.47
Elev: 7,385 ft	15-min	0.27	0.33	0.37	0.42	0.46	0.50	1.06	1.31	1.48	1.69	1.85	2.00
Modified POR: 36	20-min	0.28	0.35	0.40	0.45	0.49	0.54	0.85	1.05	1.19	1.36	1.48	1.61
Type: 2nd Order	25-min	0.30	0.37	0.42	0.48	0.53	0.57	0.72	0.90	1.01	1.15	1.26	1.37
	30-min	0.32	0.40	0.45	0.51	0.56	0.60	0.64	0.79	0.89	1.02	1.11	1.21
	35-min	0.33	0.41	0.46	0.52	0.57	0.62	0.56	0.70	0.79	0.90	0.98	1.06
	40-min	0.34	0.42	0.47	0.54	0.59	0.64	0.51	0.63	0.70	0.81	0.88	0.95
	45-min	0.35	0.43	0.48	0.55	0.60	0.65	0.46	0.57	0.64	0.73	0.80	0.87
	50-min	0.35	0.43	0.49	0.56	0.61	0.66	0.42	0.52	0.59	0.67	0.73	0.80
	55-min	0.36	0.44	0.50	0.57	0.62	0.67	0.39	0.48	0.54	0.62	0.68	0.74
	1-hr	0.36	0.45	0.51	0.58	0.63	0.69	0.36	0.45	0.51	0.58	0.63	0.69
	2-hr	0.44	0.53	0.59	0.66	0.72	0.78	0.22	0.26	0.29	0.33	0.36	0.39
	3-hr	0.50	0.59	0.65	0.73	0.79	0.84	0.17	0.20	0.22	0.24	0.26	0.28
	6-hr	0.71	0.82	0.90	1.00	1.07	1.14	0.12	0.14	0.15	0.17	0.18	0.19
	12-hr	0.90	1.06	1.17	1.31	1.41	1.50	0.08	0.09	0.10	0.11	0.12	0.13
	24-hr	1.11	1.35	1.50	1.70	1.84	1.99	0.046	0.056	0.063	0.071	0.077	0.083
Essex	5-min	0.16	0.23	0.27	0.33	0.38	0.42	1.91	2.75	3.30	3.99	4.51	5.02
COOP: 242812	10-min	0.23	0.33	0.40	0.49	0.55	0.61	1.40	2.01	2.41	2.92	3.30	3.68
Elev: 3,870 ft	15-min	0.28	0.41	0.49	0.59	0.67	0.75	1.14	1.63	1.96	2.37	2.68	2.98
Modified POR: 30	20-min	0.30	0.44	0.52	0.63	0.72	0.80	0.91	1.31	1.57	1.90	2.15	2.39
Type: 2nd Order	25-min	0.32	0.46	0.56	0.67	0.76	0.85	0.77	1.11	1.34	1.62	1.83	2.03
	30-min	0.34	0.49	0.59	0.71	0.81	0.90	0.68	0.98	1.18	1.43	1.61	1.80
	35-min	0.35	0.50	0.61	0.73	0.83	0.92	0.60	0.86	1.04	1.26	1.42	1.58
	40-min	0.36	0.52	0.62	0.75	0.85	0.95	0.54	0.78	0.93	1.13	1.27	1.42
	45-min	0.37	0.53	0.64	0.77	0.87	0.97	0.49	0.71	0.85	1.03	1.16	1.29
	50-min	0.38	0.54	0.65	0.78	0.89	0.99	0.45	0.65	0.78	0.94	1.06	1.18
	55-min	0.38	0.55	0.66	0.80	0.90	1.00	0.42	0.60	0.72	0.87	0.98	1.10
	1-hr	0.39	0.56	0.67	0.81	0.92	1.02	0.39	0.56	0.67	0.81	0.92	1.02
	2-hr	0.52	0.71	0.83	1.00	1.11	1.23	0.26	0.35	0.42	0.50	0.56	0.62
	3-hr	0.64	0.86	1.01	1.20	1.34	1.47	0.21	0.29	0.34	0.40	0.45	0.49
	6-hr	0.88	1.10	1.24	1.41	1.54	1.68	0.15	0.18	0.21	0.24	0.26	0.28
	12-hr	1.17	1.48	1.68	1.94	2.13	2.32	0.10	0.12	0.14	0.16	0.18	0.19
	24-hr	1.62	2.07	2.37	2.75	3.03	3.31	0.068	0.086	0.099	0.115	0.126	0.138

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Eureka RS	5-min	0.18	0.25	0.29	0.34	0.38	0.42	2.21	2.97	3.48	4.11	4.58	5.05
COOP: 242827	10-min	0.27	0.36	0.42	0.50	0.56	0.62	1.62	2.18	2.54	3.01	3.35	3.70
Elev: 2,532 ft	15-min	0.33	0.44	0.52	0.61	0.68	0.75	1.31	1.76	2.06	2.44	2.72	3.00
Modified POR: 48	20-min	0.35	0.47	0.55	0.65	0.73	0.80	1.05	1.41	1.65	1.96	2.18	2.40
Type: 2nd Order	25-min	0.37	0.50	0.59	0.69	0.77	0.85	0.90	1.20	1.41	1.67	1.86	2.05
	30-min	0.40	0.53	0.62	0.74	0.82	0.90	0.79	1.06	1.24	1.47	1.64	1.81
	35-min	0.41	0.55	0.64	0.76	0.84	0.93	0.70	0.94	1.09	1.29	1.44	1.59
	40-min	0.42	0.56	0.65	0.77	0.86	0.95	0.63	0.84	0.98	1.16	1.30	1.43
	45-min	0.43	0.57	0.67	0.79	0.89	0.98	0.57	0.77	0.90	1.06	1.18	1.30
	50-min	0.43	0.58	0.68	0.81	0.90	0.99	0.52	0.70	0.82	0.97	1.08	1.19
	55-min	0.44	0.59	0.69	0.82	0.92	1.01	0.48	0.65	0.76	0.90	1.00	1.10
	1-hr	0.45	0.60	0.71	0.84	0.93	1.03	0.45	0.60	0.71	0.84	0.93	1.03
	2-hr	0.55	0.67	0.76	0.87	0.95	1.03	0.27	0.34	0.38	0.43	0.47	0.51
	3-hr	0.62	0.75	0.84	0.95	1.03	1.11	0.21	0.25	0.28	0.32	0.34	0.37
	6-hr	0.75	0.88	0.97	1.09	1.17	1.25	0.12	0.15	0.16	0.18	0.19	0.21
	12-hr	0.92	1.10	1.22	1.37	1.49	1.60	0.08	0.09	0.10	0.11	0.12	0.13
	24-hr	1.11	1.33	1.48	1.66	1.80	1.93	0.046	0.056	0.062	0.069	0.075	0.080
Fort Peck Power Plant	5-min	0.37	0.54	0.66	0.80	0.91	1.02	4.42	6.52	7.90	9.66	10.96	12.25
COOP: 243176	10-min	0.54	0.79	0.96	1.18	1.34	1.49	3.24	4.77	5.78	7.07	8.02	8.96
Elev: 2,070 ft	15-min	0.66	0.97	1.17	1.43	1.63	1.82	2.62	3.87	4.69	5.73	6.50	7.27
Modified POR: 53	20-min	0.70	1.03	1.25	1.53	1.74	1.94	2.10	3.10	3.76	4.59	5.21	5.83
Type: 2nd Order	25-min	0.75	1.10	1.33	1.63	1.85	2.07	1.79	2.64	3.20	3.91	4.44	4.96
	30-min	0.79	1.17	1.41	1.73	1.96	2.19	1.58	2.33	2.83	3.45	3.92	4.38
	35-min	0.81	1.20	1.45	1.77	2.01	2.25	1.39	2.05	2.49	3.04	3.45	3.86
	40-min	0.83	1.23	1.49	1.82	2.06	2.31	1.25	1.84	2.23	2.73	3.10	3.46
	45-min	0.85	1.26	1.53	1.86	2.12	2.37	1.14	1.68	2.04	2.49	2.82	3.15
	50-min	0.87	1.28	1.55	1.90	2.15	2.41	1.04	1.54	1.86	2.28	2.58	2.89
	55-min	0.88	1.30	1.58	1.93	2.19	2.45	0.96	1.42	1.72	2.11	2.39	2.67
	1-hr	0.90	1.32	1.61	1.96	2.23	2.49	0.90	1.32	1.61	1.96	2.23	2.49
	2-hr	1.07	1.51	1.80	2.17	2.44	2.72	0.53	0.75	0.90	1.08	1.22	1.36
	3-hr	1.17	1.63	1.93	2.32	2.60	2.89	0.39	0.54	0.64	0.77	0.87	0.96
	6-hr	1.34	1.81	2.11	2.50	2.79	3.07	0.22	0.30	0.35	0.42	0.46	0.51
	12-hr	1.59	2.11	2.46	2.89	3.22	3.54	0.13	0.18	0.20	0.24	0.27	0.29
	24-hr	1.92	2.60	3.06	3.63	4.06	4.48	0.080	0.108	0.127	0.151	0.169	0.187

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Froid	5-min	0.31	0.44	0.53	0.64	0.72	0.80	3.69	5.27	6.32	7.65	8.63	9.61
COOP: 243309	10-min	0.45	0.64	0.77	0.93	1.05	1.17	2.70	3.86	4.63	5.60	6.32	7.03
Elev: 2,030 ft	15-min	0.55	0.78	0.94	1.13	1.28	1.43	2.19	3.13	3.75	4.54	5.12	5.70
Modified POR: 42	20-min	0.58	0.84	1.00	1.21	1.37	1.52	1.75	2.51	3.01	3.64	4.11	4.57
Type: 2nd Order	25-min	0.62	0.89	1.07	1.29	1.46	1.62	1.49	2.13	2.56	3.10	3.49	3.89
	30-min	0.66	0.94	1.13	1.37	1.54	1.72	1.32	1.89	2.26	2.74	3.09	3.44
	35-min	0.68	0.97	1.16	1.40	1.58	1.76	1.16	1.66	1.99	2.41	2.72	3.02
	40-min	0.69	0.99	1.19	1.44	1.63	1.81	1.04	1.49	1.79	2.16	2.44	2.71
	45-min	0.71	1.02	1.22	1.48	1.67	1.86	0.95	1.36	1.63	1.97	2.22	2.47
	50-min	0.72	1.04	1.24	1.50	1.70	1.89	0.87	1.24	1.49	1.80	2.04	2.27
	55-min	0.74	1.05	1.26	1.53	1.73	1.92	0.80	1.15	1.38	1.67	1.88	2.10
	1-hr	0.75	1.07	1.28	1.55	1.75	1.95	0.75	1.07	1.28	1.55	1.75	1.95
	2-hr	0.85	1.15	1.35	1.60	1.79	1.97	0.43	0.58	0.68	0.80	0.89	0.99
	3-hr	0.96	1.26	1.46	1.71	1.90	2.09	0.32	0.42	0.49	0.57	0.63	0.70
	6-hr	1.12	1.43	1.63	1.88	2.07	2.25	0.19	0.24	0.27	0.31	0.34	0.38
	12-hr	1.33	1.61	1.79	2.02	2.19	2.35	0.11	0.13	0.15	0.17	0.18	0.20
	24-hr	1.56	1.93	2.18	2.50	2.73	2.97	0.065	0.081	0.091	0.104	0.114	0.124
Gibbons Pass	5-min	0.19	0.24	0.28	0.33	0.36	0.40	2.25	2.92	3.37	3.93	4.35	4.77
COOP: 243479	10-min	0.27	0.36	0.41	0.48	0.53	0.58	1.64	2.14	2.46	2.88	3.18	3.49
Elev: 6,999 ft	15-min	0.33	0.43	0.50	0.58	0.65	0.71	1.33	1.73	2.00	2.33	2.58	2.83
Modified POR: 56	20-min	0.36	0.46	0.53	0.62	0.69	0.76	1.07	1.39	1.60	1.87	2.07	2.27
Type: 2nd Order	25-min	0.38	0.49	0.57	0.66	0.73	0.80	0.91	1.18	1.36	1.59	1.76	1.93
	30-min	0.40	0.52	0.60	0.70	0.78	0.85	0.80	1.05	1.20	1.41	1.56	1.71
	35-min	0.41	0.54	0.62	0.72	0.80	0.88	0.71	0.92	1.06	1.24	1.37	1.50
	40-min	0.42	0.55	0.63	0.74	0.82	0.90	0.63	0.83	0.95	1.11	1.23	1.35
	45-min	0.43	0.56	0.65	0.76	0.84	0.92	0.58	0.75	0.87	1.01	1.12	1.23
	50-min	0.44	0.57	0.66	0.77	0.86	0.94	0.53	0.69	0.79	0.93	1.03	1.12
	55-min	0.45	0.58	0.67	0.79	0.87	0.95	0.49	0.64	0.73	0.86	0.95	1.04
	1-hr	0.46	0.59	0.68	0.80	0.88	0.97	0.46	0.59	0.68	0.80	0.88	0.97
	2-hr	0.55	0.68	0.76	0.87	0.95	1.03	0.27	0.34	0.38	0.43	0.47	0.51
	3-hr	0.61	0.73	0.81	0.91	0.98	1.05	0.20	0.24	0.27	0.30	0.33	0.35
	6-hr	0.80	1.09	1.28	1.52	1.70	1.88	0.13	0.18	0.21	0.25	0.28	0.31
	12-hr	1.09	1.40	1.61	1.87	2.07	2.26	0.09	0.12	0.13	0.16	0.17	0.19
	24-hr	1.46	1.73	1.90	2.12	2.28	2.44	0.061	0.072	0.079	0.088	0.095	0.102

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Gibson Dam	5-min	0.20	0.31	0.38	0.47	0.54	0.60	2.39	3.68	4.54	5.62	6.42	7.22
COOP: 243489	10-min	0.29	0.45	0.55	0.69	0.78	0.88	1.75	2.70	3.32	4.11	4.70	5.28
Elev: 4,593 ft	15-min	0.35	0.55	0.67	0.83	0.95	1.07	1.42	2.19	2.69	3.34	3.81	4.29
Modified POR: 56	20-min	0.38	0.58	0.72	0.89	1.02	1.14	1.14	1.75	2.16	2.67	3.06	3.43
Type: 2nd Order	25-min	0.40	0.62	0.77	0.95	1.08	1.22	0.97	1.49	1.84	2.28	2.60	2.92
	30-min	0.43	0.66	0.81	1.01	1.15	1.29	0.86	1.32	1.62	2.01	2.30	2.58
	35-min	0.44	0.68	0.83	1.03	1.18	1.33	0.75	1.16	1.43	1.77	2.02	2.27
	40-min	0.45	0.69	0.86	1.06	1.21	1.36	0.68	1.04	1.28	1.59	1.81	2.04
	45-min	0.46	0.71	0.88	1.09	1.24	1.39	0.62	0.95	1.17	1.45	1.65	1.86
	50-min	0.47	0.72	0.89	1.10	1.26	1.42	0.56	0.87	1.07	1.33	1.51	1.70
	55-min	0.48	0.74	0.91	1.12	1.28	1.44	0.52	0.80	0.99	1.23	1.40	1.57
	1-hr	0.49	0.75	0.92	1.14	1.31	1.47	0.49	0.75	0.92	1.14	1.31	1.47
	2-hr	0.68	1.01	1.23	1.51	1.71	1.91	0.34	0.51	0.61	0.75	0.86	0.96
	3-hr	0.84	1.21	1.45	1.76	1.99	2.22	0.28	0.40	0.48	0.59	0.66	0.74
	6-hr	1.17	1.66	1.99	2.40	2.70	3.01	0.20	0.28	0.33	0.40	0.45	0.50
	12-hr	1.59	2.27	2.72	3.30	3.72	4.14	0.13	0.19	0.23	0.27	0.31	0.35
	24-hr	2.08	3.01	3.63	4.41	4.99	5.56	0.086	0.125	0.151	0.184	0.208	0.232
Glasgow Airport	5-min	0.37	0.53	0.64	0.79	0.91	1.03	4.42	6.37	7.67	9.50	10.92	12.33
COOP: 243558	10-min	0.52	0.74	0.89	1.09	1.25	1.41	3.09	4.43	5.32	6.55	7.50	8.45
Elev: 2,284 ft	15-min	0.60	0.86	1.03	1.27	1.45	1.63	2.40	3.44	4.13	5.07	5.80	6.52
Modified POR: 54	20-min	0.66	0.95	1.14	1.39	1.59	1.79	1.99	2.84	3.41	4.18	4.77	5.36
Type: 1st Order	25-min	0.71	1.01	1.22	1.49	1.70	1.91	1.70	2.43	2.92	3.58	4.08	4.58
	30-min	0.75	1.07	1.28	1.57	1.79	2.01	1.50	2.14	2.56	3.14	3.58	4.02
	35-min	0.78	1.11	1.34	1.64	1.87	2.09	1.34	1.91	2.29	2.80	3.20	3.59
	40-min	0.81	1.15	1.38	1.69	1.93	2.17	1.21	1.73	2.08	2.54	2.90	3.25
	45-min	0.83	1.19	1.43	1.74	1.99	2.23	1.11	1.59	1.90	2.33	2.65	2.98
	50-min	0.85	1.21	1.45	1.77	2.01	2.25	1.02	1.45	1.74	2.12	2.41	2.70
	55-min	0.86	1.22	1.46	1.78	2.02	2.26	0.94	1.33	1.59	1.94	2.21	2.47
	1-hr	0.87	1.23	1.47	1.79	2.04	2.28	0.87	1.23	1.47	1.79	2.04	2.28
	2-hr	0.99	1.37	1.62	1.94	2.18	2.42	0.49	0.69	0.81	0.97	1.09	1.21
	3-hr	1.07	1.46	1.71	2.03	2.27	2.51	0.36	0.49	0.57	0.68	0.76	0.84
	6-hr	1.25	1.72	2.03	2.42	2.70	2.99	0.21	0.29	0.34	0.40	0.45	0.50
	12-hr	1.45	1.91	2.22	2.61	2.90	3.19	0.12	0.16	0.19	0.22	0.24	0.27
	24-hr	1.70	2.36	2.80	3.35	3.76	4.17	0.071	0.098	0.117	0.140	0.157	0.174

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Glendive	5-min	0.36	0.49	0.58	0.69	0.78	0.86	4.29	5.91	6.98	8.33	9.34	10.34
COOP: 243581	10-min	0.52	0.72	0.85	1.02	1.14	1.26	3.14	4.32	5.11	6.10	6.83	7.56
Elev: 2,076 ft	15-min	0.64	0.88	1.04	1.24	1.39	1.53	2.54	3.50	4.14	4.95	5.54	6.13
Modified POR: 55	20-min	0.68	0.94	1.11	1.32	1.48	1.64	2.04	2.81	3.32	3.96	4.44	4.92
Type: 2nd Order	25-min	0.72	1.00	1.18	1.41	1.58	1.74	1.74	2.39	2.83	3.37	3.78	4.18
	30-min	0.77	1.06	1.25	1.49	1.67	1.85	1.53	2.11	2.50	2.98	3.34	3.70
	35-min	0.79	1.08	1.28	1.53	1.71	1.90	1.35	1.86	2.20	2.62	2.94	3.25
	40-min	0.81	1.11	1.31	1.57	1.76	1.95	1.21	1.67	1.97	2.35	2.64	2.92
	45-min	0.83	1.14	1.35	1.61	1.80	2.00	1.10	1.52	1.80	2.15	2.40	2.66
	50-min	0.84	1.16	1.37	1.64	1.83	2.03	1.01	1.39	1.65	1.96	2.20	2.44
	55-min	0.86	1.18	1.39	1.67	1.87	2.07	0.93	1.29	1.52	1.82	2.04	2.25
	1-hr	0.87	1.20	1.42	1.69	1.90	2.10	0.87	1.20	1.42	1.69	1.90	2.10
	2-hr	1.03	1.46	1.74	2.09	2.35	2.62	0.52	0.73	0.87	1.05	1.18	1.31
	3-hr	1.12	1.55	1.83	2.19	2.45	2.71	0.37	0.52	0.61	0.73	0.82	0.90
	6-hr	1.39	1.84	2.13	2.50	2.78	3.05	0.23	0.31	0.35	0.42	0.46	0.51
	12-hr	1.63	2.07	2.36	2.73	3.00	3.27	0.14	0.17	0.20	0.23	0.25	0.27
	24-hr	1.92	2.47	2.84	3.30	3.64	3.98	0.080	0.103	0.118	0.137	0.152	0.166
Great Falls Airport	5-min	0.29	0.39	0.45	0.55	0.63	0.70	3.43	4.63	5.44	6.60	7.51	8.42
COOP: 243751	10-min	0.40	0.54	0.63	0.77	0.87	0.98	2.37	3.23	3.80	4.61	5.24	5.86
Elev: 3,664 ft	15-min	0.46	0.63	0.74	0.90	1.02	1.14	1.84	2.51	2.96	3.58	4.07	4.55
Modified POR: 65	20-min	0.50	0.69	0.82	0.99	1.12	1.25	1.51	2.07	2.45	2.96	3.36	3.75
Type: 1st Order	25-min	0.54	0.74	0.87	1.06	1.20	1.34	1.29	1.77	2.10	2.54	2.88	3.21
	30-min	0.57	0.78	0.92	1.11	1.26	1.41	1.14	1.56	1.84	2.23	2.53	2.82
	35-min	0.59	0.81	0.96	1.16	1.32	1.47	1.01	1.39	1.65	1.99	2.26	2.52
	40-min	0.61	0.84	1.00	1.21	1.37	1.53	0.92	1.26	1.49	1.81	2.05	2.29
	45-min	0.63	0.87	1.03	1.24	1.41	1.57	0.84	1.16	1.37	1.66	1.88	2.10
	50-min	0.64	0.88	1.04	1.26	1.42	1.59	0.77	1.06	1.25	1.51	1.71	1.90
	55-min	0.65	0.89	1.05	1.26	1.43	1.59	0.70	0.97	1.14	1.38	1.56	1.73
	1-hr	0.65	0.89	1.05	1.27	1.43	1.59	0.65	0.89	1.05	1.27	1.43	1.59
	2-hr	0.70	0.95	1.11	1.32	1.47	1.63	0.35	0.48	0.56	0.66	0.74	0.81
	3-hr	0.79	1.02	1.18	1.37	1.52	1.66	0.26	0.34	0.39	0.46	0.51	0.55
	6-hr	1.02	1.24	1.39	1.58	1.72	1.86	0.17	0.21	0.23	0.26	0.29	0.31
	12-hr	1.31	1.63	1.85	2.12	2.32	2.52	0.11	0.14	0.15	0.18	0.19	0.21
	24-hr	1.66	2.16	2.49	2.91	3.22	3.52	0.069	0.090	0.104	0.121	0.134	0.147

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Haugan-1W	5-min	0.16	0.23	0.27	0.33	0.37	0.41	1.96	2.76	3.29	3.96	4.45	4.95
COOP: 243984	10-min	0.24	0.34	0.40	0.48	0.54	0.60	1.43	2.02	2.40	2.89	3.26	3.62
Elev: 3,153 ft	15-min	0.29	0.41	0.49	0.59	0.66	0.73	1.16	1.64	1.95	2.35	2.64	2.94
Modified POR: 38	20-min	0.31	0.44	0.52	0.63	0.71	0.78	0.93	1.31	1.56	1.88	2.12	2.35
Type: 2nd Order	25-min	0.33	0.47	0.55	0.67	0.75	0.83	0.79	1.12	1.33	1.60	1.80	2.00
	30-min	0.35	0.49	0.59	0.71	0.80	0.88	0.70	0.99	1.18	1.42	1.59	1.77
	35-min	0.36	0.51	0.60	0.73	0.82	0.91	0.62	0.87	1.03	1.25	1.40	1.56
	40-min	0.37	0.52	0.62	0.75	0.84	0.93	0.55	0.78	0.93	1.12	1.26	1.40
	45-min	0.38	0.53	0.63	0.76	0.86	0.95	0.50	0.71	0.85	1.02	1.15	1.27
	50-min	0.38	0.54	0.65	0.78	0.87	0.97	0.46	0.65	0.77	0.93	1.05	1.17
	55-min	0.39	0.55	0.66	0.79	0.89	0.99	0.43	0.60	0.72	0.86	0.97	1.08
	1-hr	0.40	0.56	0.67	0.80	0.90	1.01	0.40	0.56	0.67	0.80	0.90	1.01
	2-hr	0.50	0.68	0.80	0.95	1.06	1.18	0.25	0.34	0.40	0.48	0.53	0.59
	3-hr	0.58	0.77	0.90	1.06	1.18	1.29	0.19	0.26	0.30	0.35	0.39	0.43
	6-hr	0.77	0.97	1.10	1.27	1.39	1.52	0.13	0.16	0.18	0.21	0.23	0.25
	12-hr	1.04	1.30	1.47	1.69	1.85	2.01	0.09	0.11	0.12	0.14	0.15	0.17
	24-hr	1.36	1.73	1.97	2.27	2.50	2.72	0.057	0.072	0.082	0.095	0.104	0.113
Havre Airport	5-min	0.26	0.37	0.44	0.54	0.61	0.69	3.14	4.40	5.25	6.44	7.38	8.30
COOP: 243996	10-min	0.37	0.53	0.63	0.77	0.88	0.99	2.23	3.15	3.77	4.62	5.28	5.94
Elev: 2,585 ft	15-min	0.44	0.62	0.74	0.91	1.04	1.16	1.74	2.47	2.96	3.63	4.14	4.65
Modified POR: 51	20-min	0.48	0.68	0.82	1.00	1.15	1.29	1.44	2.05	2.46	3.01	3.44	3.86
Type: 1st Order	25-min	0.52	0.73	0.88	1.08	1.23	1.38	1.24	1.76	2.11	2.59	2.96	3.32
	30-min	0.54	0.78	0.93	1.14	1.30	1.46	1.09	1.55	1.86	2.28	2.60	2.92
	35-min	0.57	0.81	0.97	1.19	1.36	1.53	0.97	1.39	1.67	2.04	2.33	2.62
	40-min	0.58	0.84	1.01	1.24	1.41	1.58	0.88	1.26	1.52	1.86	2.12	2.38
	45-min	0.59	0.85	1.03	1.26	1.43	1.61	0.79	1.14	1.37	1.68	1.91	2.15
	50-min	0.60	0.86	1.03	1.27	1.44	1.62	0.72	1.03	1.24	1.52	1.73	1.94
	55-min	0.61	0.87	1.04	1.28	1.45	1.63	0.66	0.95	1.14	1.39	1.58	1.77
	1-hr	0.62	0.88	1.05	1.28	1.46	1.63	0.62	0.88	1.05	1.28	1.46	1.63
	2-hr	0.72	0.99	1.17	1.40	1.56	1.73	0.36	0.49	0.58	0.70	0.78	0.87
	3-hr	0.81	1.08	1.26	1.49	1.66	1.83	0.27	0.36	0.42	0.50	0.55	0.61
	6-hr	0.99	1.28	1.47	1.71	1.89	2.07	0.16	0.21	0.25	0.29	0.32	0.35
	12-hr	1.27	1.58	1.79	2.06	2.25	2.45	0.11	0.13	0.15	0.17	0.19	0.20
	24-hr	1.55	1.93	2.18	2.49	2.73	2.96	0.065	0.080	0.091	0.104	0.114	0.123

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Hebgen Dam	5-min	0.18	0.26	0.31	0.37	0.41	0.46	2.20	3.08	3.67	4.40	4.95	5.49
COOP: 244038	10-min	0.27	0.38	0.45	0.54	0.60	0.67	1.61	2.26	2.68	3.22	3.62	4.02
Elev: 6,489 ft	15-min	0.33	0.46	0.54	0.65	0.73	0.82	1.31	1.83	2.18	2.61	2.94	3.26
Modified POR: 54	20-min	0.35	0.49	0.58	0.70	0.78	0.87	1.05	1.47	1.74	2.09	2.35	2.61
Type: 2nd Order	25-min	0.37	0.52	0.62	0.74	0.84	0.93	0.89	1.25	1.48	1.78	2.00	2.22
	30-min	0.39	0.55	0.66	0.79	0.89	0.98	0.79	1.10	1.31	1.58	1.77	1.97
	35-min	0.40	0.57	0.67	0.81	0.91	1.01	0.69	0.97	1.15	1.39	1.56	1.73
	40-min	0.41	0.58	0.69	0.83	0.93	1.03	0.62	0.87	1.04	1.24	1.40	1.55
	45-min	0.43	0.60	0.71	0.85	0.96	1.06	0.57	0.79	0.94	1.13	1.27	1.41
	50-min	0.43	0.61	0.72	0.87	0.97	1.08	0.52	0.73	0.86	1.04	1.17	1.30
	55-min	0.44	0.62	0.73	0.88	0.99	1.10	0.48	0.67	0.80	0.96	1.08	1.20
	1-hr	0.45	0.63	0.75	0.90	1.01	1.12	0.45	0.63	0.75	0.90	1.01	1.12
	2-hr	0.54	0.71	0.83	0.97	1.08	1.18	0.27	0.36	0.41	0.49	0.54	0.59
	3-hr	0.61	0.79	0.92	1.07	1.18	1.29	0.20	0.26	0.31	0.36	0.39	0.43
	6-hr	0.79	0.96	1.08	1.23	1.33	1.44	0.13	0.16	0.18	0.20	0.22	0.24
	12-hr	1.02	1.21	1.34	1.50	1.62	1.74	0.08	0.10	0.11	0.12	0.13	0.14
	24-hr	1.32	1.56	1.71	1.91	2.05	2.20	0.055	0.065	0.071	0.079	0.085	0.091
Helena Airport	5-min	0.24	0.35	0.43	0.53	0.61	0.69	2.92	4.26	5.14	6.38	7.35	8.31
COOP: 244055	10-min	0.32	0.47	0.57	0.70	0.81	0.91	1.94	2.82	3.41	4.21	4.84	5.45
Elev: 3,828 ft	15-min	0.37	0.54	0.65	0.80	0.92	1.04	1.48	2.15	2.60	3.21	3.68	4.14
Modified POR: 64	20-min	0.40	0.59	0.71	0.87	1.00	1.13	1.21	1.76	2.12	2.62	3.00	3.38
Type: 1st Order	25-min	0.43	0.62	0.75	0.93	1.06	1.20	1.03	1.50	1.81	2.23	2.55	2.87
	30-min	0.45	0.65	0.79	0.97	1.11	1.25	0.90	1.31	1.58	1.95	2.23	2.51
	35-min	0.47	0.68	0.82	1.01	1.16	1.30	0.80	1.16	1.41	1.73	1.98	2.23
	40-min	0.48	0.70	0.84	1.03	1.18	1.32	0.72	1.05	1.26	1.54	1.76	1.98
	45-min	0.49	0.71	0.85	1.04	1.19	1.34	0.65	0.94	1.14	1.39	1.59	1.78
	50-min	0.50	0.72	0.86	1.06	1.21	1.35	0.60	0.86	1.04	1.27	1.45	1.62
	55-min	0.51	0.73	0.88	1.07	1.22	1.37	0.55	0.80	0.96	1.17	1.33	1.50
	1-hr	0.51	0.74	0.89	1.09	1.24	1.39	0.51	0.74	0.89	1.09	1.24	1.39
	2-hr	0.61	0.87	1.04	1.26	1.43	1.59	0.30	0.43	0.52	0.63	0.71	0.79
	3-hr	0.68	0.94	1.11	1.33	1.49	1.65	0.23	0.31	0.37	0.44	0.50	0.55
	6-hr	0.83	1.07	1.24	1.44	1.60	1.75	0.14	0.18	0.21	0.24	0.27	0.29
	12-hr	1.04	1.30	1.47	1.69	1.86	2.02	0.09	0.11	0.12	0.14	0.15	0.17
	24-hr	1.26	1.57	1.78	2.05	2.24	2.44	0.052	0.066	0.074	0.085	0.093	0.102

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Highwood	5-min	0.21	0.30	0.35	0.42	0.47	0.53	2.53	3.54	4.22	5.07	5.70	6.32
COOP: 244120	10-min	0.31	0.43	0.51	0.62	0.69	0.77	1.85	2.59	3.09	3.71	4.17	4.63
Elev: 3,402 ft	15-min	0.38	0.53	0.63	0.75	0.85	0.94	1.50	2.10	2.50	3.01	3.38	3.75
Modified POR: 31	20-min	0.40	0.56	0.67	0.80	0.90	1.00	1.20	1.69	2.01	2.41	2.71	3.01
Type: 2nd Order	25-min	0.43	0.60	0.71	0.85	0.96	1.07	1.02	1.44	1.71	2.05	2.31	2.56
	30-min	0.45	0.63	0.75	0.91	1.02	1.13	0.90	1.27	1.51	1.81	2.04	2.26
	35-min	0.46	0.65	0.77	0.93	1.05	1.16	0.80	1.12	1.33	1.59	1.79	1.99
	40-min	0.48	0.67	0.79	0.95	1.07	1.19	0.71	1.00	1.19	1.43	1.61	1.79
	45-min	0.49	0.68	0.81	0.98	1.10	1.22	0.65	0.91	1.09	1.30	1.47	1.63
	50-min	0.50	0.70	0.83	1.00	1.12	1.24	0.60	0.84	0.99	1.19	1.34	1.49
	55-min	0.51	0.71	0.84	1.01	1.14	1.26	0.55	0.77	0.92	1.10	1.24	1.38
	1-hr	0.51	0.72	0.86	1.03	1.16	1.29	0.51	0.72	0.86	1.03	1.16	1.29
	2-hr	0.64	0.84	0.97	1.14	1.26	1.38	0.32	0.42	0.49	0.57	0.63	0.69
	3-hr	0.76	0.98	1.12	1.31	1.44	1.57	0.25	0.33	0.37	0.44	0.48	0.52
	6-hr	1.07	1.34	1.52	1.75	1.92	2.09	0.18	0.22	0.25	0.29	0.32	0.35
	12-hr	1.47	1.95	2.27	2.67	2.97	3.26	0.12	0.16	0.19	0.22	0.25	0.27
	24-hr	2.04	2.84	3.37	4.03	4.52	5.01	0.085	0.118	0.140	0.168	0.188	0.209
Hilger	5-min	0.26	0.36	0.43	0.51	0.57	0.63	3.10	4.30	5.10	6.11	6.86	7.60
COOP: 244143	10-min	0.38	0.52	0.62	0.74	0.84	0.93	2.27	3.15	3.73	4.47	5.02	5.56
Elev: 4,080 ft	15-min	0.46	0.64	0.76	0.91	1.02	1.13	1.84	2.55	3.03	3.63	4.07	4.51
Modified POR: 53	20-min	0.49	0.68	0.81	0.97	1.09	1.20	1.47	2.05	2.43	2.91	3.26	3.61
Type: 2nd Order	25-min	0.52	0.73	0.86	1.03	1.16	1.28	1.26	1.74	2.07	2.47	2.78	3.08
	30-min	0.55	0.77	0.91	1.09	1.23	1.36	1.11	1.54	1.82	2.19	2.45	2.72
	35-min	0.57	0.79	0.94	1.12	1.26	1.39	0.98	1.35	1.61	1.92	2.16	2.39
	40-min	0.58	0.81	0.96	1.15	1.29	1.43	0.88	1.22	1.44	1.73	1.94	2.15
	45-min	0.60	0.83	0.98	1.18	1.32	1.47	0.80	1.11	1.31	1.57	1.76	1.96
	50-min	0.61	0.85	1.00	1.20	1.35	1.49	0.73	1.01	1.20	1.44	1.62	1.79
	55-min	0.62	0.86	1.02	1.22	1.37	1.52	0.68	0.94	1.11	1.33	1.49	1.66
	1-hr	0.63	0.87	1.04	1.24	1.39	1.54	0.63	0.87	1.04	1.24	1.39	1.54
	2-hr	0.74	1.09	1.32	1.61	1.83	2.05	0.37	0.54	0.66	0.81	0.91	1.02
	3-hr	0.84	1.19	1.42	1.72	1.93	2.15	0.28	0.40	0.47	0.57	0.64	0.72
	6-hr	1.03	1.37	1.59	1.88	2.09	2.30	0.17	0.23	0.27	0.31	0.35	0.38
	12-hr	1.34	1.72	1.97	2.28	2.52	2.75	0.11	0.14	0.16	0.19	0.21	0.23
	24-hr	1.70	2.21	2.55	2.98	3.29	3.61	0.071	0.092	0.106	0.124	0.137	0.150

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Holter Dam	5-min	0.20	0.31	0.38	0.47	0.54	0.60	2.44	3.73	4.58	5.65	6.45	7.24
COOP: 244241	10-min	0.30	0.45	0.56	0.69	0.79	0.88	1.79	2.73	3.35	4.14	4.72	5.30
Elev: 3,487 ft	15-min	0.36	0.55	0.68	0.84	0.96	1.07	1.45	2.21	2.72	3.35	3.83	4.30
Modified POR: 56	20-min	0.39	0.59	0.73	0.90	1.02	1.15	1.16	1.77	2.18	2.69	3.07	3.44
Type: 2nd Order	25-min	0.41	0.63	0.77	0.95	1.09	1.22	0.99	1.51	1.85	2.29	2.61	2.93
	30-min	0.44	0.67	0.82	1.01	1.15	1.30	0.87	1.33	1.64	2.02	2.31	2.59
	35-min	0.45	0.68	0.84	1.04	1.18	1.33	0.77	1.17	1.44	1.78	2.03	2.28
	40-min	0.46	0.70	0.86	1.06	1.22	1.36	0.69	1.05	1.29	1.60	1.82	2.05
	45-min	0.47	0.72	0.88	1.09	1.25	1.40	0.63	0.96	1.18	1.46	1.66	1.86
	50-min	0.48	0.73	0.90	1.11	1.27	1.42	0.58	0.88	1.08	1.33	1.52	1.71
	55-min	0.49	0.74	0.91	1.13	1.29	1.45	0.53	0.81	1.00	1.23	1.41	1.58
	1-hr	0.50	0.76	0.93	1.15	1.31	1.47	0.50	0.76	0.93	1.15	1.31	1.47
	2-hr	0.57	0.79	0.94	1.13	1.27	1.40	0.28	0.40	0.47	0.56	0.63	0.70
	3-hr	0.66	0.87	1.00	1.18	1.31	1.44	0.22	0.29	0.33	0.39	0.44	0.48
	6-hr	0.86	1.12	1.29	1.51	1.67	1.83	0.14	0.19	0.21	0.25	0.28	0.30
	12-hr	1.15	1.45	1.65	1.91	2.09	2.28	0.10	0.12	0.14	0.16	0.17	0.19
	24-hr	1.43	1.87	2.16	2.52	2.79	3.06	0.060	0.078	0.090	0.105	0.116	0.128
Iliad	5-min	0.25	0.35	0.42	0.51	0.58	0.64	2.96	4.23	5.07	6.14	6.92	7.71
COOP: 244368	10-min	0.36	0.52	0.62	0.75	0.84	0.94	2.17	3.10	3.71	4.49	5.07	5.64
Elev: 2,950 ft	15-min	0.44	0.63	0.75	0.91	1.03	1.14	1.76	2.51	3.01	3.64	4.11	4.57
Modified POR: 35	20-min	0.47	0.67	0.80	0.97	1.10	1.22	1.41	2.01	2.41	2.92	3.29	3.67
Type: 2nd Order	25-min	0.50	0.71	0.86	1.04	1.17	1.30	1.20	1.71	2.05	2.48	2.80	3.12
	30-min	0.53	0.76	0.91	1.10	1.24	1.38	1.06	1.51	1.82	2.20	2.48	2.76
	35-min	0.54	0.78	0.93	1.13	1.27	1.42	0.93	1.33	1.60	1.93	2.18	2.43
	40-min	0.56	0.80	0.96	1.16	1.30	1.45	0.84	1.20	1.43	1.73	1.96	2.18
	45-min	0.57	0.82	0.98	1.18	1.34	1.49	0.76	1.09	1.31	1.58	1.78	1.98
	50-min	0.58	0.83	1.00	1.21	1.36	1.51	0.70	1.00	1.20	1.45	1.63	1.82
	55-min	0.59	0.85	1.01	1.23	1.38	1.54	0.65	0.92	1.11	1.34	1.51	1.68
	1-hr	0.60	0.86	1.03	1.25	1.41	1.57	0.60	0.86	1.03	1.25	1.41	1.57
	2-hr	0.70	0.97	1.14	1.36	1.52	1.68	0.35	0.48	0.57	0.68	0.76	0.84
	3-hr	0.81	1.08	1.25	1.48	1.64	1.81	0.27	0.36	0.42	0.49	0.55	0.60
	6-hr	0.97	1.30	1.52	1.80	2.00	2.21	0.16	0.22	0.25	0.30	0.33	0.37
	12-hr	1.19	1.57	1.81	2.13	2.36	2.59	0.10	0.13	0.15	0.18	0.20	0.22
	24-hr	1.54	2.08	2.43	2.88	3.21	3.54	0.064	0.087	0.101	0.120	0.134	0.147

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Ismay	5-min	0.35	0.46	0.53	0.62	0.68	0.75	4.18	5.46	6.32	7.39	8.19	8.98
COOP: 244442	10-min	0.51	0.67	0.77	0.90	1.00	1.10	3.06	4.00	4.62	5.41	5.99	6.57
Elev: 2,500 ft	15-min	0.62	0.81	0.94	1.10	1.22	1.33	2.48	3.24	3.75	4.39	4.86	5.33
Modified POR: 55	20-min	0.66	0.87	1.00	1.17	1.30	1.42	1.99	2.60	3.00	3.52	3.90	4.27
Type: 2nd Order	25-min	0.70	0.92	1.07	1.25	1.38	1.52	1.69	2.21	2.56	2.99	3.32	3.64
	30-min	0.75	0.98	1.13	1.32	1.46	1.61	1.49	1.95	2.26	2.64	2.93	3.21
	35-min	0.77	1.00	1.16	1.36	1.50	1.65	1.31	1.72	1.99	2.33	2.58	2.83
	40-min	0.79	1.03	1.19	1.39	1.54	1.69	1.18	1.54	1.78	2.09	2.31	2.54
	45-min	0.81	1.05	1.22	1.43	1.58	1.73	1.08	1.41	1.63	1.90	2.11	2.31
	50-min	0.82	1.07	1.24	1.45	1.61	1.76	0.98	1.29	1.49	1.74	1.93	2.12
	55-min	0.83	1.09	1.26	1.48	1.64	1.80	0.91	1.19	1.38	1.61	1.79	1.96
	1-hr	0.85	1.11	1.28	1.50	1.66	1.83	0.85	1.11	1.28	1.50	1.66	1.83
	2-hr	0.97	1.26	1.46	1.71	1.89	2.07	0.48	0.63	0.73	0.85	0.95	1.04
	3-hr	1.05	1.35	1.55	1.80	1.99	2.17	0.35	0.45	0.52	0.60	0.66	0.72
	6-hr	1.20	1.54	1.77	2.05	2.26	2.47	0.20	0.26	0.29	0.34	0.38	0.41
	12-hr	1.41	1.87	2.18	2.57	2.86	3.15	0.12	0.16	0.18	0.21	0.24	0.26
	24-hr	1.70	2.24	2.59	3.04	3.37	3.70	0.071	0.093	0.108	0.127	0.140	0.154
Joplin	5-min	0.25	0.40	0.50	0.63	0.72	0.81	2.97	4.79	6.00	7.53	8.66	9.78
COOP: 244512	10-min	0.36	0.58	0.73	0.92	1.06	1.19	2.17	3.51	4.39	5.51	6.33	7.15
Elev: 3,323 ft	15-min	0.44	0.71	0.89	1.12	1.28	1.45	1.76	2.85	3.56	4.47	5.14	5.80
Modified POR: 47	20-min	0.47	0.76	0.95	1.19	1.37	1.55	1.41	2.28	2.85	3.58	4.12	4.65
Type: 2nd Order	25-min	0.50	0.81	1.01	1.27	1.46	1.65	1.20	1.94	2.43	3.05	3.50	3.96
	30-min	0.53	0.86	1.07	1.35	1.55	1.75	1.06	1.71	2.15	2.69	3.10	3.50
	35-min	0.55	0.88	1.10	1.38	1.59	1.80	0.94	1.51	1.89	2.37	2.72	3.08
	40-min	0.56	0.90	1.13	1.42	1.63	1.84	0.84	1.35	1.70	2.13	2.45	2.76
	45-min	0.57	0.93	1.16	1.45	1.67	1.89	0.77	1.23	1.54	1.94	2.23	2.52
	50-min	0.58	0.94	1.18	1.48	1.70	1.92	0.70	1.13	1.41	1.77	2.04	2.31
	55-min	0.59	0.96	1.20	1.50	1.73	1.95	0.65	1.05	1.31	1.64	1.89	2.13
	1-hr	0.60	0.97	1.22	1.53	1.76	1.99	0.60	0.97	1.22	1.53	1.76	1.99
	2-hr	0.71	1.10	1.36	1.68	1.92	2.16	0.36	0.55	0.68	0.84	0.96	1.08
	3-hr	0.79	1.22	1.51	1.87	2.13	2.40	0.26	0.41	0.50	0.62	0.71	0.80
	6-hr	0.98	1.42	1.70	2.07	2.34	2.60	0.16	0.24	0.28	0.34	0.39	0.43
	12-hr	1.22	1.62	1.89	2.23	2.48	2.73	0.10	0.14	0.16	0.19	0.21	0.23
	24-hr	1.49	1.95	2.25	2.63	2.91	3.19	0.062	0.081	0.094	0.110	0.121	0.133

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Kalispell Airport	5-min	0.18	0.24	0.28	0.33	0.37	0.41	2.12	2.86	3.35	3.96	4.42	4.88
COOP: 244558	10-min	0.26	0.35	0.41	0.48	0.54	0.59	1.55	2.09	2.45	2.90	3.24	3.57
Elev: 2,957 ft	15-min	0.31	0.42	0.50	0.59	0.66	0.72	1.26	1.70	1.99	2.35	2.62	2.89
Modified POR: 60	20-min	0.34	0.45	0.53	0.63	0.70	0.77	1.01	1.36	1.59	1.89	2.10	2.32
Type: 2nd Order	25-min	0.36	0.48	0.56	0.67	0.75	0.82	0.86	1.16	1.36	1.61	1.79	1.97
	30-min	0.38	0.51	0.60	0.71	0.79	0.87	0.76	1.02	1.20	1.42	1.58	1.74
	35-min	0.39	0.52	0.61	0.73	0.81	0.90	0.67	0.90	1.05	1.25	1.39	1.53
	40-min	0.40	0.54	0.63	0.75	0.83	0.92	0.60	0.81	0.95	1.12	1.25	1.38
	45-min	0.41	0.55	0.65	0.77	0.85	0.94	0.55	0.74	0.86	1.02	1.14	1.26
	50-min	0.42	0.56	0.66	0.78	0.87	0.96	0.50	0.67	0.79	0.93	1.04	1.15
	55-min	0.42	0.57	0.67	0.79	0.88	0.97	0.46	0.62	0.73	0.86	0.96	1.06
	1-hr	0.43	0.58	0.68	0.81	0.90	0.99	0.43	0.58	0.68	0.81	0.90	0.99
	2-hr	0.51	0.67	0.77	0.90	1.00	1.09	0.26	0.33	0.39	0.45	0.50	0.55
	3-hr	0.58	0.77	0.89	1.05	1.16	1.28	0.19	0.26	0.30	0.35	0.39	0.43
	6-hr	0.75	0.93	1.05	1.20	1.31	1.42	0.13	0.16	0.17	0.20	0.22	0.24
	12-hr	1.00	1.22	1.37	1.55	1.69	1.83	0.08	0.10	0.11	0.13	0.14	0.15
	24-hr	1.26	1.53	1.71	1.94	2.11	2.28	0.052	0.064	0.071	0.081	0.088	0.095
Lakeview	5-min	0.20	0.28	0.33	0.39	0.43	0.48	2.45	3.32	3.90	4.64	5.18	5.72
COOP: 244820	10-min	0.30	0.41	0.48	0.57	0.63	0.70	1.79	2.43	2.86	3.39	3.79	4.19
Elev: 6,710 ft	15-min	0.36	0.49	0.58	0.69	0.77	0.85	1.45	1.97	2.32	2.75	3.08	3.40
Modified POR: 57	20-min	0.39	0.53	0.62	0.74	0.82	0.91	1.16	1.58	1.86	2.21	2.47	2.72
Type: 2nd Order	25-min	0.41	0.56	0.66	0.78	0.87	0.97	0.99	1.35	1.58	1.88	2.10	2.32
	30-min	0.44	0.59	0.70	0.83	0.93	1.02	0.88	1.19	1.40	1.66	1.85	2.05
	35-min	0.45	0.61	0.72	0.85	0.95	1.05	0.77	1.05	1.23	1.46	1.63	1.80
	40-min	0.46	0.63	0.74	0.87	0.98	1.08	0.69	0.94	1.10	1.31	1.46	1.62
	45-min	0.47	0.64	0.75	0.90	1.00	1.11	0.63	0.86	1.01	1.19	1.33	1.47
	50-min	0.48	0.65	0.77	0.91	1.02	1.12	0.58	0.78	0.92	1.09	1.22	1.35
	55-min	0.49	0.66	0.78	0.93	1.04	1.14	0.53	0.72	0.85	1.01	1.13	1.25
	1-hr	0.50	0.68	0.79	0.94	1.05	1.16	0.50	0.68	0.79	0.94	1.05	1.16
	2-hr	0.62	0.80	0.92	1.08	1.19	1.31	0.31	0.40	0.46	0.54	0.60	0.65
	3-hr	0.70	0.88	1.00	1.16	1.27	1.38	0.23	0.29	0.33	0.39	0.42	0.46
	6-hr	0.88	1.09	1.23	1.41	1.54	1.67	0.15	0.18	0.20	0.23	0.26	0.28
	12-hr	1.11	1.33	1.48	1.66	1.79	1.93	0.09	0.11	0.12	0.14	0.15	0.16
	24-hr	1.42	1.69	1.86	2.09	2.26	2.42	0.059	0.070	0.078	0.087	0.094	0.101

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Lavina	5-min	0.25	0.34	0.40	0.47	0.52	0.58	3.00	4.05	4.74	5.62	6.26	6.91
COOP: 244904	10-min	0.37	0.49	0.58	0.68	0.76	0.84	2.20	2.96	3.47	4.11	4.58	5.05
Elev: 3,434 ft	15-min	0.45	0.60	0.70	0.83	0.93	1.03	1.78	2.40	2.81	3.33	3.72	4.10
Modified POR: 59	20-min	0.48	0.64	0.75	0.89	0.99	1.10	1.43	1.93	2.26	2.67	2.98	3.29
Type: 2nd Order	25-min	0.51	0.68	0.80	0.95	1.06	1.17	1.22	1.64	1.92	2.27	2.54	2.80
	30-min	0.54	0.72	0.85	1.00	1.12	1.24	1.07	1.45	1.70	2.01	2.24	2.47
	35-min	0.55	0.74	0.87	1.03	1.15	1.27	0.95	1.27	1.49	1.77	1.97	2.17
	40-min	0.57	0.76	0.89	1.06	1.18	1.30	0.85	1.14	1.34	1.59	1.77	1.95
	45-min	0.58	0.78	0.92	1.08	1.21	1.33	0.77	1.04	1.22	1.45	1.61	1.78
	50-min	0.59	0.80	0.93	1.10	1.23	1.36	0.71	0.95	1.12	1.32	1.48	1.63
	55-min	0.60	0.81	0.95	1.12	1.25	1.38	0.66	0.88	1.03	1.22	1.37	1.51
	1-hr	0.61	0.82	0.96	1.14	1.27	1.40	0.61	0.82	0.96	1.14	1.27	1.40
	2-hr	0.68	0.89	1.03	1.21	1.34	1.47	0.34	0.45	0.52	0.60	0.67	0.74
	3-hr	0.75	0.98	1.14	1.34	1.49	1.64	0.25	0.33	0.38	0.45	0.50	0.55
	6-hr	0.93	1.26	1.48	1.75	1.95	2.15	0.16	0.21	0.25	0.29	0.33	0.36
	12-hr	1.13	1.61	1.93	2.33	2.63	2.92	0.09	0.13	0.16	0.19	0.22	0.24
	24-hr	1.34	1.97	2.38	2.91	3.30	3.69	0.056	0.082	0.099	0.121	0.137	0.154
Lewistown-2SW	5-min	0.27	0.34	0.39	0.46	0.50	0.55	3.21	4.12	4.73	5.49	6.06	6.62
COOP: 244983	10-min	0.39	0.50	0.58	0.67	0.74	0.81	2.35	3.02	3.46	4.02	4.43	4.84
Elev: 4,100 ft	15-min	0.48	0.61	0.70	0.81	0.90	0.98	1.91	2.45	2.81	3.26	3.59	3.93
Modified POR: 42	20-min	0.51	0.65	0.75	0.87	0.96	1.05	1.53	1.96	2.25	2.61	2.88	3.15
Type: 2nd Order	25-min	0.54	0.70	0.80	0.93	1.02	1.12	1.30	1.67	1.91	2.22	2.45	2.68
	30-min	0.57	0.74	0.85	0.98	1.08	1.18	1.15	1.48	1.69	1.96	2.17	2.37
	35-min	0.59	0.76	0.87	1.01	1.11	1.21	1.01	1.30	1.49	1.73	1.91	2.08
	40-min	0.61	0.78	0.89	1.03	1.14	1.25	0.91	1.17	1.34	1.55	1.71	1.87
	45-min	0.62	0.80	0.91	1.06	1.17	1.28	0.83	1.06	1.22	1.41	1.56	1.70
	50-min	0.63	0.81	0.93	1.08	1.19	1.30	0.76	0.97	1.11	1.29	1.43	1.56
	55-min	0.64	0.82	0.94	1.10	1.21	1.32	0.70	0.90	1.03	1.20	1.32	1.44
	1-hr	0.65	0.84	0.96	1.12	1.23	1.34	0.65	0.84	0.96	1.12	1.23	1.34
	2-hr	0.77	1.03	1.20	1.41	1.57	1.73	0.38	0.51	0.60	0.71	0.78	0.86
	3-hr	0.87	1.14	1.33	1.56	1.73	1.90	0.29	0.38	0.44	0.52	0.58	0.63
	6-hr	1.05	1.38	1.59	1.87	2.07	2.27	0.18	0.23	0.27	0.31	0.35	0.38
	12-hr	1.31	1.75	2.03	2.40	2.67	2.93	0.11	0.15	0.17	0.20	0.22	0.24
	24-hr	1.71	2.30	2.68	3.17	3.54	3.90	0.071	0.096	0.112	0.132	0.147	0.162

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Libby RS-1NE	5-min	0.17	0.25	0.30	0.36	0.41	0.46	2.08	2.99	3.60	4.36	4.92	5.48
COOP: 245015	10-min	0.25	0.37	0.44	0.53	0.60	0.67	1.52	2.19	2.63	3.19	3.60	4.01
Elev: 2,096 ft	15-min	0.31	0.44	0.53	0.65	0.73	0.81	1.24	1.78	2.13	2.59	2.92	3.25
Modified POR: 55	20-min	0.33	0.47	0.57	0.69	0.78	0.87	0.99	1.42	1.71	2.07	2.34	2.61
Type: 2nd Order	25-min	0.35	0.50	0.61	0.74	0.83	0.93	0.84	1.21	1.46	1.76	1.99	2.22
	30-min	0.37	0.54	0.64	0.78	0.88	0.98	0.75	1.07	1.29	1.56	1.76	1.96
	35-min	0.38	0.55	0.66	0.80	0.90	1.01	0.66	0.94	1.13	1.37	1.55	1.73
	40-min	0.39	0.56	0.68	0.82	0.93	1.03	0.59	0.85	1.02	1.23	1.39	1.55
	45-min	0.40	0.58	0.69	0.84	0.95	1.06	0.54	0.77	0.93	1.12	1.27	1.41
	50-min	0.41	0.59	0.71	0.86	0.97	1.08	0.49	0.71	0.85	1.03	1.16	1.29
	55-min	0.42	0.60	0.72	0.87	0.98	1.10	0.45	0.65	0.78	0.95	1.07	1.20
	1-hr	0.42	0.61	0.73	0.89	1.00	1.11	0.42	0.61	0.73	0.89	1.00	1.11
	2-hr	0.51	0.70	0.83	0.99	1.10	1.22	0.26	0.35	0.41	0.49	0.55	0.61
	3-hr	0.59	0.77	0.89	1.05	1.16	1.28	0.20	0.26	0.30	0.35	0.39	0.43
	6-hr	0.74	1.04	1.24	1.49	1.68	1.86	0.12	0.17	0.21	0.25	0.28	0.31
	12-hr	0.89	1.23	1.46	1.74	1.95	2.16	0.07	0.10	0.12	0.15	0.16	0.18
	24-hr	1.06	1.46	1.72	2.05	2.30	2.54	0.044	0.061	0.072	0.085	0.096	0.106
Lima	5-min	0.18	0.24	0.28	0.33	0.36	0.40	2.18	2.88	3.34	3.93	4.37	4.80
COOP: 245030	10-min	0.27	0.35	0.41	0.48	0.53	0.58	1.60	2.11	2.45	2.88	3.19	3.51
Elev: 6,279 ft	15-min	0.32	0.43	0.50	0.58	0.65	0.71	1.29	1.71	1.98	2.33	2.59	2.85
Modified POR: 53	20-min	0.35	0.46	0.53	0.62	0.69	0.76	1.04	1.37	1.59	1.87	2.08	2.28
Type: 2nd Order	25-min	0.37	0.49	0.56	0.66	0.74	0.81	0.88	1.17	1.35	1.59	1.77	1.94
	30-min	0.39	0.52	0.60	0.70	0.78	0.86	0.78	1.03	1.20	1.41	1.56	1.72
	35-min	0.40	0.53	0.61	0.72	0.80	0.88	0.69	0.91	1.05	1.24	1.37	1.51
	40-min	0.41	0.54	0.63	0.74	0.82	0.90	0.62	0.81	0.94	1.11	1.23	1.36
	45-min	0.42	0.56	0.65	0.76	0.84	0.93	0.56	0.74	0.86	1.01	1.12	1.23
	50-min	0.43	0.57	0.66	0.77	0.86	0.94	0.51	0.68	0.79	0.93	1.03	1.13
	55-min	0.44	0.58	0.67	0.79	0.87	0.96	0.48	0.63	0.73	0.86	0.95	1.05
	1-hr	0.44	0.59	0.68	0.80	0.89	0.97	0.44	0.59	0.68	0.80	0.89	0.97
	2-hr	0.52	0.65	0.74	0.86	0.94	1.02	0.26	0.33	0.37	0.43	0.47	0.51
	3-hr	0.58	0.71	0.80	0.91	0.99	1.07	0.19	0.24	0.27	0.30	0.33	0.36
	6-hr	0.69	0.82	0.90	1.01	1.09	1.17	0.12	0.14	0.15	0.17	0.18	0.19
	12-hr	0.86	1.07	1.20	1.37	1.49	1.61	0.07	0.09	0.10	0.11	0.12	0.13
	24-hr	1.07	1.30	1.46	1.66	1.80	1.95	0.044	0.054	0.061	0.069	0.075	0.081

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Lincoln RS	5-min	0.20	0.27	0.32	0.37	0.42	0.46	2.40	3.23	3.79	4.48	5.00	5.51
COOP: 245040	10-min	0.29	0.39	0.46	0.55	0.61	0.67	1.76	2.37	2.77	3.28	3.66	4.03
Elev: 4,575 ft	15-min	0.36	0.48	0.56	0.67	0.74	0.82	1.43	1.92	2.25	2.66	2.97	3.27
Modified POR: 26	20-min	0.38	0.51	0.60	0.71	0.79	0.87	1.14	1.54	1.80	2.13	2.38	2.62
Type: 2nd Order	25-min	0.41	0.55	0.64	0.76	0.84	0.93	0.97	1.31	1.53	1.81	2.02	2.23
	30-min	0.43	0.58	0.68	0.80	0.89	0.99	0.86	1.16	1.35	1.60	1.79	1.97
	35-min	0.44	0.59	0.70	0.82	0.92	1.01	0.76	1.02	1.19	1.41	1.57	1.73
	40-min	0.45	0.61	0.71	0.84	0.94	1.04	0.68	0.91	1.07	1.27	1.41	1.56
	45-min	0.46	0.62	0.73	0.87	0.97	1.06	0.62	0.83	0.97	1.15	1.29	1.42
	50-min	0.47	0.64	0.74	0.88	0.98	1.08	0.57	0.76	0.89	1.06	1.18	1.30
	55-min	0.48	0.65	0.76	0.90	1.00	1.10	0.52	0.71	0.83	0.98	1.09	1.20
	1-hr	0.49	0.66	0.77	0.91	1.02	1.12	0.49	0.66	0.77	0.91	1.02	1.12
	2-hr	0.55	0.71	0.82	0.96	1.06	1.16	0.28	0.36	0.41	0.48	0.53	0.58
	3-hr	0.60	0.76	0.86	0.99	1.08	1.18	0.20	0.25	0.29	0.33	0.36	0.39
	6-hr	0.75	0.90	1.00	1.13	1.22	1.32	0.12	0.15	0.17	0.19	0.20	0.22
	12-hr	0.98	1.23	1.41	1.62	1.78	1.94	0.08	0.10	0.12	0.14	0.15	0.16
	24-hr	1.24	1.65	1.93	2.27	2.53	2.78	0.052	0.069	0.080	0.095	0.105	0.116
Livingston Airport	5-min	0.19	0.29	0.36	0.45	0.51	0.58	2.28	3.52	4.34	5.37	6.14	6.90
COOP: 245086	10-min	0.28	0.43	0.53	0.65	0.75	0.84	1.67	2.57	3.17	3.93	4.49	5.05
Elev: 4,643 ft	15-min	0.34	0.52	0.64	0.80	0.91	1.02	1.35	2.09	2.57	3.19	3.64	4.10
Modified POR: 64	20-min	0.36	0.56	0.69	0.85	0.97	1.09	1.08	1.67	2.06	2.55	2.92	3.28
Type: 2nd Order	25-min	0.38	0.59	0.73	0.91	1.04	1.16	0.92	1.42	1.76	2.17	2.49	2.79
	30-min	0.41	0.63	0.78	0.96	1.10	1.23	0.81	1.26	1.55	1.92	2.20	2.47
	35-min	0.42	0.65	0.80	0.99	1.13	1.27	0.72	1.11	1.36	1.69	1.93	2.17
	40-min	0.43	0.66	0.82	1.01	1.16	1.30	0.64	0.99	1.22	1.52	1.73	1.95
	45-min	0.44	0.68	0.84	1.04	1.19	1.33	0.59	0.91	1.12	1.38	1.58	1.78
	50-min	0.45	0.69	0.85	1.06	1.21	1.36	0.54	0.83	1.02	1.27	1.45	1.63
	55-min	0.46	0.70	0.87	1.07	1.23	1.38	0.50	0.77	0.95	1.17	1.34	1.50
	1-hr	0.46	0.71	0.88	1.09	1.25	1.40	0.46	0.71	0.88	1.09	1.25	1.40
	2-hr	0.56	0.79	0.94	1.13	1.28	1.42	0.28	0.39	0.47	0.57	0.64	0.71
	3-hr	0.66	0.89	1.04	1.24	1.38	1.53	0.22	0.30	0.35	0.41	0.46	0.51
	6-hr	0.86	1.08	1.23	1.42	1.55	1.69	0.14	0.18	0.20	0.24	0.26	0.28
	12-hr	1.07	1.38	1.57	1.83	2.01	2.20	0.09	0.11	0.13	0.15	0.17	0.18
	24-hr	1.34	1.74	2.01	2.35	2.60	2.84	0.056	0.073	0.084	0.098	0.108	0.119

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Lodge Grass	5-min	0.26	0.37	0.44	0.53	0.59	0.66	3.13	4.41	5.26	6.34	7.13	7.92
COOP: 245106	10-min	0.38	0.54	0.64	0.77	0.87	0.97	2.29	3.23	3.85	4.64	5.22	5.80
Elev: 3,360 ft	15-min	0.46	0.65	0.78	0.94	1.06	1.18	1.86	2.62	3.12	3.76	4.23	4.70
Modified POR: 49	20-min	0.50	0.70	0.83	1.00	1.13	1.26	1.49	2.10	2.50	3.01	3.39	3.77
Type: 2nd Order	25-min	0.53	0.74	0.89	1.07	1.20	1.34	1.27	1.79	2.13	2.57	2.89	3.21
	30-min	0.56	0.79	0.94	1.13	1.28	1.42	1.12	1.58	1.88	2.27	2.55	2.83
	35-min	0.57	0.81	0.97	1.16	1.31	1.46	0.98	1.39	1.66	1.99	2.25	2.49
	40-min	0.59	0.83	0.99	1.19	1.34	1.49	0.88	1.25	1.49	1.79	2.02	2.24
	45-min	0.60	0.85	1.02	1.22	1.38	1.53	0.81	1.14	1.35	1.63	1.84	2.04
	50-min	0.61	0.87	1.03	1.25	1.40	1.56	0.74	1.04	1.24	1.49	1.68	1.87
	55-min	0.63	0.88	1.05	1.27	1.43	1.58	0.68	0.96	1.15	1.38	1.56	1.73
	1-hr	0.64	0.90	1.07	1.29	1.45	1.61	0.64	0.90	1.07	1.29	1.45	1.61
	2-hr	0.70	0.99	1.18	1.42	1.60	1.78	0.35	0.50	0.59	0.71	0.80	0.89
	3-hr	0.77	1.06	1.25	1.49	1.67	1.85	0.26	0.35	0.42	0.50	0.56	0.62
	6-hr	0.96	1.31	1.54	1.83	2.04	2.26	0.16	0.22	0.26	0.30	0.34	0.38
	12-hr	1.26	1.66	1.94	2.28	2.53	2.78	0.10	0.14	0.16	0.19	0.21	0.23
	24-hr	1.62	2.02	2.28	2.62	2.87	3.12	0.067	0.084	0.095	0.109	0.120	0.130
Logan-2W	5-min	0.21	0.28	0.32	0.37	0.41	0.45	2.53	3.31	3.83	4.48	4.96	5.45
COOP: 245122	10-min	0.31	0.40	0.47	0.55	0.61	0.66	1.85	2.42	2.80	3.28	3.63	3.99
Elev: 4,089 ft	15-min	0.37	0.49	0.57	0.66	0.74	0.81	1.50	1.96	2.27	2.66	2.95	3.23
Modified POR: 33	20-min	0.40	0.52	0.61	0.71	0.79	0.86	1.20	1.57	1.82	2.13	2.36	2.59
Type: 2nd Order	25-min	0.43	0.56	0.65	0.76	0.84	0.92	1.02	1.34	1.55	1.81	2.01	2.21
	30-min	0.45	0.59	0.68	0.80	0.89	0.97	0.90	1.18	1.37	1.60	1.78	1.95
	35-min	0.46	0.61	0.70	0.82	0.91	1.00	0.80	1.04	1.20	1.41	1.56	1.71
	40-min	0.48	0.62	0.72	0.84	0.94	1.03	0.71	0.93	1.08	1.27	1.40	1.54
	45-min	0.49	0.64	0.74	0.86	0.96	1.05	0.65	0.85	0.98	1.15	1.28	1.40
	50-min	0.50	0.65	0.75	0.88	0.98	1.07	0.60	0.78	0.90	1.06	1.17	1.28
	55-min	0.50	0.66	0.76	0.90	0.99	1.09	0.55	0.72	0.83	0.98	1.08	1.19
	1-hr	0.51	0.67	0.78	0.91	1.01	1.11	0.51	0.67	0.78	0.91	1.01	1.11
	2-hr	0.58	0.72	0.82	0.94	1.03	1.12	0.29	0.36	0.41	0.47	0.52	0.56
	3-hr	0.63	0.78	0.89	1.02	1.11	1.21	0.21	0.26	0.30	0.34	0.37	0.40
	6-hr	0.76	0.91	1.01	1.13	1.23	1.32	0.13	0.15	0.17	0.19	0.20	0.22
	12-hr	0.98	1.15	1.26	1.40	1.51	1.61	0.08	0.10	0.11	0.12	0.13	0.13
	24-hr	1.22	1.45	1.60	1.78	1.92	2.06	0.051	0.060	0.066	0.074	0.080	0.086

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Lolo Hot Springs-2NE	5-min	0.18	0.26	0.32	0.39	0.45	0.50	2.13	3.17	3.86	4.74	5.39	6.03
COOP: 245146	10-min	0.26	0.39	0.47	0.58	0.66	0.74	1.56	2.32	2.83	3.47	3.94	4.41
Elev: 4,055 ft	15-min	0.32	0.47	0.57	0.70	0.80	0.89	1.26	1.88	2.29	2.81	3.20	3.58
Modified POR: 29	20-min	0.34	0.50	0.61	0.75	0.85	0.96	1.01	1.51	1.84	2.25	2.56	2.87
Type: 2nd Order	25-min	0.36	0.53	0.65	0.80	0.91	1.02	0.86	1.28	1.56	1.92	2.18	2.44
	30-min	0.38	0.57	0.69	0.85	0.96	1.08	0.76	1.13	1.38	1.69	1.93	2.16
	35-min	0.39	0.58	0.71	0.87	0.99	1.11	0.67	1.00	1.22	1.49	1.70	1.90
	40-min	0.40	0.60	0.73	0.89	1.01	1.14	0.60	0.90	1.09	1.34	1.52	1.70
	45-min	0.41	0.61	0.75	0.91	1.04	1.16	0.55	0.82	0.99	1.22	1.39	1.55
	50-min	0.42	0.62	0.76	0.93	1.06	1.18	0.50	0.75	0.91	1.12	1.27	1.42
	55-min	0.42	0.63	0.77	0.95	1.08	1.21	0.46	0.69	0.84	1.03	1.17	1.31
	1-hr	0.43	0.64	0.79	0.96	1.09	1.23	0.43	0.64	0.79	0.96	1.09	1.23
	2-hr	0.52	0.76	0.92	1.12	1.27	1.42	0.26	0.38	0.46	0.56	0.64	0.71
	3-hr	0.60	0.82	0.97	1.16	1.30	1.44	0.20	0.27	0.32	0.39	0.43	0.48
	6-hr	0.75	0.97	1.11	1.28	1.42	1.55	0.13	0.16	0.18	0.21	0.24	0.26
	12-hr	0.97	1.25	1.43	1.66	1.83	2.00	0.08	0.10	0.12	0.14	0.15	0.17
	24-hr	1.22	1.52	1.72	1.97	2.16	2.35	0.051	0.063	0.072	0.082	0.090	0.098
Martinsdale-3NNW	5-min	0.23	0.33	0.40	0.48	0.54	0.61	2.74	3.96	4.77	5.78	6.54	7.29
COOP: 245387	10-min	0.33	0.48	0.58	0.71	0.80	0.89	2.01	2.90	3.49	4.23	4.78	5.33
Elev: 4,800 ft	15-min	0.41	0.59	0.71	0.86	0.97	1.08	1.63	2.35	2.83	3.43	3.88	4.32
Modified POR: 60	20-min	0.44	0.63	0.76	0.92	1.04	1.16	1.31	1.88	2.27	2.75	3.11	3.47
Type: 2nd Order	25-min	0.46	0.67	0.80	0.98	1.10	1.23	1.11	1.60	1.93	2.34	2.65	2.95
	30-min	0.49	0.71	0.85	1.03	1.17	1.30	0.98	1.42	1.70	2.07	2.34	2.61
	35-min	0.50	0.73	0.87	1.06	1.20	1.34	0.86	1.25	1.50	1.82	2.06	2.29
	40-min	0.52	0.75	0.90	1.09	1.23	1.37	0.78	1.12	1.35	1.63	1.85	2.06
	45-min	0.53	0.76	0.92	1.12	1.26	1.41	0.71	1.02	1.23	1.49	1.68	1.88
	50-min	0.54	0.78	0.94	1.14	1.28	1.43	0.65	0.93	1.12	1.36	1.54	1.72
	55-min	0.55	0.79	0.95	1.16	1.31	1.46	0.60	0.86	1.04	1.26	1.43	1.59
	1-hr	0.56	0.80	0.97	1.18	1.33	1.48	0.56	0.80	0.97	1.18	1.33	1.48
	2-hr	0.65	0.89	1.05	1.25	1.40	1.55	0.32	0.45	0.53	0.63	0.70	0.78
	3-hr	0.74	1.00	1.17	1.39	1.56	1.72	0.25	0.33	0.39	0.46	0.52	0.57
	6-hr	0.88	1.12	1.28	1.48	1.63	1.77	0.15	0.19	0.21	0.25	0.27	0.30
	12-hr	1.12	1.37	1.54	1.75	1.90	2.06	0.09	0.11	0.13	0.15	0.16	0.17
	24-hr	1.35	1.65	1.85	2.10	2.29	2.48	0.056	0.069	0.077	0.088	0.096	0.103

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Miles City COOP: 245685/245690 Elev: 2,392 ft Modified POR: 40 Type: 2nd Order *Note: Frequency analysis for this weather station is based on the combined periods of another with non-overlapping records.*	5-min	0.30	0.41	0.49	0.59	0.67	0.75	3.64	4.95	5.84	7.08	8.05	9.00
	10-min	0.44	0.60	0.71	0.86	0.98	1.10	2.66	3.63	4.28	5.18	5.89	6.59
	15-min	0.54	0.74	0.87	1.05	1.19	1.34	2.16	2.94	3.47	4.20	4.78	5.34
	20-min	0.58	0.79	0.93	1.12	1.28	1.43	1.73	2.36	2.78	3.37	3.83	4.28
	25-min	0.61	0.84	0.99	1.19	1.36	1.52	1.47	2.01	2.37	2.87	3.26	3.64
	30-min	0.65	0.89	1.05	1.27	1.44	1.61	1.30	1.77	2.09	2.53	2.88	3.22
	35-min	0.67	0.91	1.07	1.30	1.48	1.65	1.15	1.56	1.84	2.23	2.53	2.83
	40-min	0.69	0.93	1.10	1.33	1.52	1.70	1.03	1.40	1.65	2.00	2.27	2.54
	45-min	0.70	0.96	1.13	1.37	1.55	1.74	0.94	1.28	1.50	1.82	2.07	2.32
	50-min	0.72	0.97	1.15	1.39	1.58	1.77	0.86	1.17	1.38	1.67	1.90	2.12
	2-hr	0.88	1.21	1.43	1.74	1.98	2.22	0.44	0.60	0.72	0.87	0.99	1.11
	3-hr	0.95	1.29	1.52	1.85	2.10	2.35	0.32	0.43	0.51	0.62	0.70	0.78
	6-hr	1.14	1.46	1.68	1.99	2.23	2.48	0.19	0.24	0.28	0.33	0.37	0.41
	12-hr	1.30	1.68	1.94	2.30	2.59	2.88	0.11	0.14	0.16	0.19	0.22	0.24
	24-hr	1.60	2.04	2.34	2.77	3.11	3.44	0.067	0.085	0.097	0.115	0.130	0.144
Millegan COOP: 245706 Elev: 4,500 ft Modified POR: 65 Type: 2nd Order	5-min	0.21	0.31	0.37	0.45	0.51	0.56	2.58	3.70	4.44	5.38	6.08	6.77
	10-min	0.31	0.45	0.54	0.66	0.74	0.83	1.89	2.71	3.25	3.94	4.45	4.95
	15-min	0.38	0.55	0.66	0.80	0.90	1.00	1.53	2.20	2.64	3.19	3.61	4.02
	20-min	0.41	0.59	0.70	0.85	0.96	1.07	1.23	1.76	2.11	2.56	2.89	3.22
	25-min	0.44	0.62	0.75	0.91	1.03	1.14	1.04	1.50	1.80	2.18	2.46	2.74
	30-min	0.46	0.66	0.79	0.96	1.09	1.21	0.92	1.32	1.59	1.93	2.17	2.42
	35-min	0.47	0.68	0.82	0.99	1.12	1.24	0.81	1.16	1.40	1.69	1.91	2.13
	40-min	0.49	0.70	0.84	1.01	1.14	1.28	0.73	1.05	1.26	1.52	1.72	1.91
	45-min	0.50	0.71	0.86	1.04	1.17	1.31	0.66	0.95	1.14	1.39	1.57	1.74
	50-min	0.51	0.73	0.87	1.06	1.19	1.33	0.61	0.87	1.05	1.27	1.43	1.60
	55-min	0.52	0.74	0.89	1.08	1.21	1.35	0.56	0.81	0.97	1.17	1.33	1.48
	1-hr	0.52	0.75	0.90	1.09	1.24	1.38	0.52	0.75	0.90	1.09	1.24	1.38
	2-hr	0.64	0.88	1.03	1.22	1.37	1.51	0.32	0.44	0.51	0.61	0.68	0.75
	3-hr	0.75	0.97	1.12	1.31	1.45	1.59	0.25	0.32	0.37	0.44	0.48	0.53
	6-hr	1.00	1.26	1.44	1.67	1.83	2.00	0.17	0.21	0.24	0.28	0.31	0.33
	12-hr	1.30	1.67	1.91	2.22	2.45	2.68	0.11	0.14	0.16	0.19	0.20	0.22
	24-hr	1.68	2.24	2.60	3.07	3.41	3.75	0.070	0.093	0.108	0.128	0.142	0.156

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Missoula Airport	5-min	0.17	0.25	0.31	0.38	0.44	0.50	2.07	3.04	3.68	4.57	5.27	5.97
COOP: 245745	10-min	0.24	0.35	0.43	0.53	0.61	0.69	1.45	2.12	2.57	3.18	3.65	4.11
Elev: 3,192 ft	15-min	0.28	0.41	0.50	0.62	0.71	0.80	1.13	1.65	2.00	2.47	2.83	3.18
Modified POR: 64	20-min	0.31	0.45	0.55	0.68	0.78	0.87	0.93	1.36	1.65	2.03	2.33	2.62
Type: 1st Order	25-min	0.33	0.49	0.59	0.73	0.83	0.93	0.80	1.17	1.41	1.74	1.99	2.24
	30-min	0.35	0.51	0.62	0.76	0.87	0.98	0.70	1.03	1.24	1.53	1.75	1.97
	35-min	0.37	0.54	0.65	0.80	0.91	1.03	0.63	0.92	1.11	1.37	1.56	1.76
	40-min	0.38	0.56	0.67	0.83	0.94	1.06	0.57	0.83	1.01	1.24	1.42	1.59
	45-min	0.39	0.57	0.69	0.85	0.97	1.09	0.52	0.76	0.92	1.14	1.30	1.46
	50-min	0.40	0.59	0.71	0.87	1.00	1.12	0.48	0.71	0.85	1.05	1.20	1.35
	55-min	0.41	0.60	0.73	0.89	1.01	1.13	0.45	0.66	0.79	0.97	1.10	1.23
	1-hr	0.42	0.61	0.74	0.90	1.02	1.14	0.42	0.61	0.74	0.90	1.02	1.14
	2-hr	0.53	0.72	0.85	1.01	1.13	1.25	0.26	0.36	0.42	0.51	0.57	0.63
	3-hr	0.61	0.81	0.94	1.11	1.23	1.36	0.20	0.27	0.31	0.37	0.41	0.45
	6-hr	0.77	0.98	1.11	1.28	1.41	1.53	0.13	0.16	0.19	0.21	0.23	0.26
	12-hr	0.95	1.20	1.36	1.56	1.72	1.87	0.08	0.10	0.11	0.13	0.14	0.16
	24-hr	1.17	1.47	1.66	1.91	2.09	2.28	0.049	0.061	0.069	0.080	0.087	0.095
Molt-6SW	5-min	0.24	0.38	0.46	0.57	0.66	0.74	2.92	4.51	5.56	6.89	7.87	8.85
COOP: 245791	10-min	0.36	0.55	0.68	0.84	0.96	1.08	2.14	3.30	4.07	5.04	5.76	6.47
Elev: 4,000 ft	15-min	0.43	0.67	0.82	1.02	1.17	1.31	1.74	2.68	3.30	4.09	4.67	5.25
Modified POR: 58	20-min	0.46	0.72	0.88	1.09	1.25	1.40	1.39	2.15	2.64	3.28	3.74	4.21
Type: 2nd Order	25-min	0.49	0.76	0.94	1.16	1.33	1.49	1.18	1.83	2.25	2.79	3.19	3.58
	30-min	0.52	0.81	0.99	1.23	1.41	1.58	1.05	1.61	1.99	2.46	2.82	3.16
	35-min	0.54	0.83	1.02	1.26	1.44	1.62	0.92	1.42	1.75	2.17	2.48	2.78
	40-min	0.55	0.85	1.05	1.30	1.48	1.67	0.83	1.27	1.57	1.95	2.22	2.50
	45-min	0.56	0.87	1.07	1.33	1.52	1.71	0.75	1.16	1.43	1.77	2.03	2.28
	50-min	0.57	0.89	1.09	1.35	1.55	1.74	0.69	1.06	1.31	1.62	1.86	2.09
	55-min	0.58	0.90	1.11	1.38	1.57	1.77	0.64	0.98	1.21	1.50	1.72	1.93
	1-hr	0.59	0.92	1.13	1.40	1.60	1.80	0.59	0.92	1.13	1.40	1.60	1.80
	2-hr	0.68	1.01	1.23	1.50	1.70	1.91	0.34	0.51	0.61	0.75	0.85	0.95
	3-hr	0.75	1.08	1.30	1.58	1.79	2.00	0.25	0.36	0.43	0.53	0.60	0.67
	6-hr	0.96	1.28	1.48	1.75	1.94	2.14	0.16	0.21	0.25	0.29	0.32	0.36
	12-hr	1.18	1.53	1.76	2.06	2.28	2.50	0.10	0.13	0.15	0.17	0.19	0.21
	24-hr	1.45	1.87	2.15	2.50	2.76	3.01	0.060	0.078	0.089	0.104	0.115	0.126

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Neihart-8NNW	5-min	0.23	0.32	0.38	0.45	0.51	0.56	2.81	3.85	4.55	5.42	6.07	6.72
COOP: 246008	10-min	0.34	0.47	0.55	0.66	0.74	0.82	2.05	2.82	3.33	3.97	4.44	4.92
Elev: 5,230 ft	15-min	0.42	0.57	0.67	0.80	0.90	1.00	1.66	2.29	2.70	3.22	3.60	3.99
Modified POR: 41	20-min	0.44	0.61	0.72	0.86	0.96	1.07	1.33	1.83	2.16	2.58	2.89	3.20
Type: 2nd Order	25-min	0.47	0.65	0.77	0.91	1.02	1.13	1.14	1.56	1.84	2.20	2.46	2.72
	30-min	0.50	0.69	0.81	0.97	1.09	1.20	1.00	1.38	1.63	1.94	2.17	2.40
	35-min	0.52	0.71	0.83	1.00	1.12	1.23	0.88	1.21	1.43	1.71	1.91	2.11
	40-min	0.53	0.73	0.86	1.02	1.14	1.27	0.79	1.09	1.28	1.53	1.72	1.90
	45-min	0.54	0.74	0.88	1.05	1.17	1.30	0.72	0.99	1.17	1.40	1.56	1.73
	50-min	0.55	0.76	0.89	1.07	1.19	1.32	0.66	0.91	1.07	1.28	1.43	1.58
	55-min	0.56	0.77	0.91	1.08	1.21	1.34	0.61	0.84	0.99	1.18	1.32	1.47
	1-hr	0.57	0.78	0.92	1.10	1.23	1.37	0.57	0.78	0.92	1.10	1.23	1.37
	2-hr	0.69	0.92	1.07	1.27	1.41	1.56	0.34	0.46	0.54	0.63	0.71	0.78
	3-hr	0.78	1.02	1.17	1.37	1.52	1.66	0.26	0.34	0.39	0.46	0.51	0.55
	6-hr	1.04	1.28	1.43	1.62	1.77	1.91	0.17	0.21	0.24	0.27	0.29	0.32
	12-hr	1.45	1.79	2.02	2.30	2.52	2.73	0.12	0.15	0.17	0.19	0.21	0.23
	24-hr	1.92	2.42	2.76	3.18	3.50	3.81	0.080	0.101	0.115	0.133	0.146	0.159
Ovando	5-min	0.19	0.26	0.31	0.37	0.41	0.46	2.26	3.12	3.69	4.41	4.95	5.48
COOP: 246302	10-min	0.28	0.38	0.45	0.54	0.60	0.67	1.65	2.28	2.70	3.23	3.62	4.01
Elev: 4,109 ft	15-min	0.34	0.46	0.55	0.65	0.73	0.81	1.34	1.85	2.19	2.62	2.94	3.25
Modified POR: 36	20-min	0.36	0.49	0.59	0.70	0.78	0.87	1.08	1.48	1.76	2.10	2.35	2.61
Type: 2nd Order	25-min	0.38	0.53	0.62	0.74	0.83	0.92	0.92	1.26	1.49	1.79	2.00	2.22
	30-min	0.40	0.56	0.66	0.79	0.88	0.98	0.81	1.12	1.32	1.58	1.77	1.96
	35-min	0.42	0.57	0.68	0.81	0.91	1.01	0.71	0.98	1.16	1.39	1.56	1.72
	40-min	0.43	0.59	0.70	0.83	0.93	1.03	0.64	0.88	1.04	1.25	1.40	1.55
	45-min	0.44	0.60	0.71	0.85	0.96	1.06	0.58	0.80	0.95	1.14	1.27	1.41
	50-min	0.44	0.61	0.73	0.87	0.97	1.08	0.53	0.74	0.87	1.04	1.17	1.29
	55-min	0.45	0.62	0.74	0.88	0.99	1.09	0.49	0.68	0.81	0.96	1.08	1.19
	1-hr	0.46	0.63	0.75	0.90	1.01	1.11	0.46	0.63	0.75	0.90	1.01	1.11
	2-hr	0.53	0.77	0.93	1.13	1.28	1.42	0.27	0.39	0.46	0.56	0.64	0.71
	3-hr	0.59	0.82	0.97	1.17	1.31	1.46	0.20	0.27	0.32	0.39	0.44	0.49
	6-hr	0.71	0.95	1.11	1.32	1.46	1.61	0.12	0.16	0.19	0.22	0.24	0.27
	12-hr	0.93	1.16	1.31	1.50	1.64	1.78	0.08	0.10	0.11	0.13	0.14	0.15
	24-hr	1.10	1.32	1.47	1.66	1.80	1.94	0.046	0.055	0.061	0.069	0.075	0.081

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Philipsburg RS	5-min	0.18	0.23	0.27	0.31	0.35	0.38	2.11	2.76	3.19	3.74	4.14	4.55
COOP: 246472	10-min	0.26	0.34	0.39	0.46	0.51	0.55	1.54	2.02	2.34	2.74	3.03	3.33
Elev: 5,270 ft	15-min	0.31	0.41	0.47	0.55	0.61	0.67	1.25	1.64	1.89	2.22	2.46	2.70
Modified POR: 29	20-min	0.33	0.44	0.51	0.59	0.66	0.72	1.00	1.31	1.52	1.78	1.97	2.16
Type: 2nd Order	25-min	0.36	0.47	0.54	0.63	0.70	0.77	0.85	1.12	1.29	1.51	1.68	1.84
	30-min	0.38	0.49	0.57	0.67	0.74	0.81	0.75	0.99	1.14	1.34	1.48	1.63
	35-min	0.39	0.51	0.59	0.69	0.76	0.83	0.66	0.87	1.00	1.18	1.30	1.43
	40-min	0.40	0.52	0.60	0.70	0.78	0.86	0.60	0.78	0.90	1.06	1.17	1.28
	45-min	0.41	0.53	0.62	0.72	0.80	0.88	0.54	0.71	0.82	0.96	1.07	1.17
	50-min	0.41	0.54	0.63	0.73	0.81	0.89	0.50	0.65	0.75	0.88	0.98	1.07
	55-min	0.42	0.55	0.64	0.75	0.83	0.91	0.46	0.60	0.70	0.82	0.90	0.99
	1-hr	0.43	0.56	0.65	0.76	0.84	0.92	0.43	0.56	0.65	0.76	0.84	0.92
	2-hr	0.54	0.67	0.76	0.88	0.96	1.05	0.27	0.34	0.38	0.44	0.48	0.52
	3-hr	0.61	0.73	0.81	0.90	0.98	1.05	0.20	0.24	0.27	0.30	0.33	0.35
	6-hr	0.76	0.91	1.01	1.14	1.23	1.32	0.13	0.15	0.17	0.19	0.20	0.22
	12-hr	1.03	1.31	1.50	1.73	1.90	2.07	0.09	0.11	0.12	0.14	0.16	0.17
	24-hr	1.31	1.68	1.93	2.23	2.46	2.69	0.055	0.070	0.080	0.093	0.103	0.112
Plains RS	5-min	0.17	0.26	0.32	0.39	0.44	0.50	2.08	3.12	3.80	4.67	5.31	5.95
COOP: 246562	10-min	0.25	0.38	0.46	0.57	0.65	0.73	1.52	2.28	2.78	3.42	3.89	4.35
Elev: 2,490 ft	15-min	0.31	0.46	0.56	0.69	0.79	0.88	1.24	1.85	2.26	2.77	3.15	3.53
Modified POR: 52	20-min	0.33	0.49	0.60	0.74	0.84	0.94	0.99	1.48	1.81	2.22	2.53	2.83
Type: 2nd Order	25-min	0.35	0.53	0.64	0.79	0.90	1.00	0.84	1.26	1.54	1.89	2.15	2.41
	30-min	0.37	0.56	0.68	0.84	0.95	1.06	0.75	1.12	1.36	1.67	1.90	2.13
	35-min	0.38	0.57	0.70	0.86	0.98	1.09	0.66	0.98	1.20	1.47	1.67	1.87
	40-min	0.39	0.59	0.72	0.88	1.00	1.12	0.59	0.88	1.07	1.32	1.50	1.68
	45-min	0.40	0.60	0.73	0.90	1.03	1.15	0.54	0.80	0.98	1.20	1.37	1.53
	50-min	0.41	0.61	0.75	0.92	1.04	1.17	0.49	0.74	0.90	1.10	1.25	1.40
	55-min	0.42	0.62	0.76	0.93	1.06	1.19	0.45	0.68	0.83	1.02	1.16	1.30
	1-hr	0.42	0.63	0.77	0.95	1.08	1.21	0.42	0.63	0.77	0.95	1.08	1.21
	2-hr	0.52	0.73	0.88	1.06	1.19	1.32	0.26	0.37	0.44	0.53	0.59	0.66
	3-hr	0.61	0.83	0.98	1.17	1.31	1.45	0.20	0.28	0.33	0.39	0.44	0.48
	6-hr	0.73	0.95	1.10	1.29	1.42	1.56	0.12	0.16	0.18	0.21	0.24	0.26
	12-hr	0.94	1.25	1.46	1.73	1.92	2.12	0.08	0.10	0.12	0.14	0.16	0.18
	24-hr	1.13	1.51	1.77	2.08	2.32	2.55	0.047	0.063	0.074	0.087	0.097	0.106

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Pleasant Valley	5-min	0.16	0.22	0.26	0.32	0.36	0.40	1.92	2.68	3.18	3.81	4.28	4.74
COOP: 246580	10-min	0.23	0.33	0.39	0.46	0.52	0.58	1.40	1.96	2.32	2.79	3.13	3.47
Elev: 3,540 ft	15-min	0.28	0.40	0.47	0.57	0.63	0.70	1.14	1.59	1.89	2.26	2.54	2.82
Modified POR: 50	20-min	0.30	0.42	0.50	0.60	0.68	0.75	0.91	1.27	1.51	1.81	2.03	2.26
Type: 2nd Order	25-min	0.32	0.45	0.54	0.64	0.72	0.80	0.78	1.08	1.29	1.54	1.73	1.92
	30-min	0.34	0.48	0.57	0.68	0.77	0.85	0.69	0.96	1.14	1.36	1.53	1.70
	35-min	0.35	0.49	0.58	0.70	0.79	0.87	0.60	0.84	1.00	1.20	1.35	1.49
	40-min	0.36	0.50	0.60	0.72	0.81	0.89	0.54	0.76	0.90	1.08	1.21	1.34
	45-min	0.37	0.52	0.61	0.74	0.83	0.92	0.49	0.69	0.82	0.98	1.10	1.22
	50-min	0.38	0.53	0.62	0.75	0.84	0.93	0.45	0.63	0.75	0.90	1.01	1.12
	55-min	0.38	0.53	0.63	0.76	0.86	0.95	0.42	0.58	0.69	0.83	0.93	1.03
	1-hr	0.39	0.54	0.65	0.77	0.87	0.96	0.39	0.54	0.65	0.77	0.87	0.96
	2-hr	0.48	0.66	0.78	0.93	1.05	1.16	0.24	0.33	0.39	0.47	0.52	0.58
	3-hr	0.57	0.75	0.86	1.01	1.11	1.22	0.19	0.25	0.29	0.34	0.37	0.41
	6-hr	0.76	0.98	1.13	1.32	1.46	1.60	0.13	0.16	0.19	0.22	0.24	0.27
	12-hr	0.95	1.21	1.38	1.59	1.75	1.91	0.08	0.10	0.11	0.13	0.15	0.16
	24-hr	1.16	1.42	1.59	1.80	1.96	2.11	0.048	0.059	0.066	0.075	0.081	0.088
Polebridge	5-min	0.17	0.22	0.25	0.29	0.32	0.35	1.99	2.60	3.00	3.50	3.88	4.25
COOP: 246615	10-min	0.24	0.32	0.37	0.43	0.47	0.52	1.46	1.90	2.19	2.56	2.84	3.11
Elev: 3,520 ft	15-min	0.30	0.39	0.44	0.52	0.58	0.63	1.18	1.54	1.78	2.08	2.30	2.52
Modified POR: 41	20-min	0.32	0.41	0.47	0.56	0.61	0.67	0.95	1.23	1.42	1.67	1.84	2.02
Type: 2nd Order	25-min	0.34	0.44	0.51	0.59	0.65	0.72	0.81	1.05	1.21	1.42	1.57	1.72
	30-min	0.36	0.46	0.54	0.63	0.69	0.76	0.71	0.93	1.07	1.25	1.39	1.52
	35-min	0.37	0.48	0.55	0.64	0.71	0.78	0.63	0.82	0.94	1.10	1.22	1.34
	40-min	0.37	0.49	0.56	0.66	0.73	0.80	0.56	0.73	0.85	0.99	1.10	1.20
	45-min	0.38	0.50	0.58	0.68	0.75	0.82	0.51	0.67	0.77	0.90	1.00	1.09
	50-min	0.39	0.51	0.59	0.69	0.76	0.84	0.47	0.61	0.71	0.83	0.91	1.00
	55-min	0.40	0.52	0.60	0.70	0.77	0.85	0.43	0.57	0.65	0.76	0.85	0.93
	1-hr	0.40	0.53	0.61	0.71	0.79	0.86	0.40	0.53	0.61	0.71	0.79	0.86
	2-hr	0.48	0.59	0.67	0.76	0.83	0.90	0.24	0.30	0.33	0.38	0.42	0.45
	3-hr	0.55	0.68	0.76	0.87	0.95	1.03	0.18	0.23	0.25	0.29	0.32	0.34
	6-hr	0.73	0.94	1.08	1.26	1.39	1.52	0.12	0.16	0.18	0.21	0.23	0.25
	12-hr	0.94	1.28	1.50	1.78	1.99	2.20	0.08	0.11	0.13	0.15	0.17	0.18
	24-hr	1.16	1.55	1.81	2.14	2.39	2.63	0.048	0.065	0.076	0.089	0.099	0.109

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Reedpoint	5-min	0.23	0.32	0.38	0.45	0.51	0.56	2.77	3.83	4.52	5.41	6.06	6.71
COOP: 246946	10-min	0.34	0.47	0.55	0.66	0.74	0.82	2.03	2.80	3.31	3.96	4.44	4.91
Elev: 3,744 ft	15-min	0.41	0.57	0.67	0.80	0.90	1.00	1.64	2.27	2.69	3.21	3.60	3.98
Modified POR: 56	20-min	0.44	0.61	0.72	0.86	0.96	1.06	1.32	1.82	2.15	2.57	2.88	3.19
Type: 2nd Order	25-min	0.47	0.65	0.76	0.91	1.02	1.13	1.12	1.55	1.83	2.19	2.45	2.72
	30-min	0.50	0.68	0.81	0.97	1.08	1.20	0.99	1.37	1.62	1.93	2.17	2.40
	35-min	0.51	0.70	0.83	0.99	1.11	1.23	0.87	1.20	1.42	1.70	1.91	2.11
	40-min	0.52	0.72	0.85	1.02	1.14	1.26	0.78	1.08	1.28	1.53	1.71	1.90
	45-min	0.54	0.74	0.87	1.04	1.17	1.30	0.71	0.99	1.16	1.39	1.56	1.73
	50-min	0.54	0.75	0.89	1.06	1.19	1.32	0.65	0.90	1.07	1.27	1.43	1.58
	55-min	0.55	0.76	0.90	1.08	1.21	1.34	0.60	0.83	0.99	1.18	1.32	1.46
	1-hr	0.56	0.78	0.92	1.10	1.23	1.36	0.56	0.78	0.92	1.10	1.23	1.36
	2-hr	0.65	0.92	1.10	1.33	1.50	1.67	0.32	0.46	0.55	0.67	0.75	0.84
	3-hr	0.75	1.09	1.32	1.60	1.81	2.02	0.25	0.36	0.44	0.53	0.60	0.67
	6-hr	1.00	1.36	1.60	1.90	2.13	2.35	0.17	0.23	0.27	0.32	0.35	0.39
	12-hr	1.29	1.69	1.95	2.29	2.53	2.78	0.11	0.14	0.16	0.19	0.21	0.23
	24-hr	1.62	2.21	2.60	3.09	3.46	3.82	0.068	0.092	0.108	0.129	0.144	0.159
Reserve-14W	5-min	0.30	0.48	0.59	0.74	0.85	0.96	3.62	5.73	7.13	8.89	10.20	11.50
COOP: 246976	10-min	0.44	0.70	0.87	1.08	1.24	1.40	2.65	4.19	5.22	6.51	7.46	8.41
Elev: 2,260 ft	15-min	0.54	0.85	1.06	1.32	1.51	1.71	2.15	3.40	4.23	5.28	6.05	6.82
Modified POR: 29	20-min	0.57	0.91	1.13	1.41	1.62	1.82	1.72	2.73	3.39	4.23	4.85	5.47
Type: 2nd Order	25-min	0.61	0.97	1.20	1.50	1.72	1.94	1.47	2.32	2.89	3.60	4.13	4.66
	30-min	0.65	1.03	1.27	1.59	1.82	2.06	1.30	2.05	2.55	3.18	3.65	4.11
	35-min	0.67	1.05	1.31	1.63	1.87	2.11	1.14	1.80	2.24	2.80	3.21	3.62
	40-min	0.68	1.08	1.34	1.67	1.92	2.17	1.02	1.62	2.01	2.51	2.88	3.25
	45-min	0.70	1.11	1.38	1.72	1.97	2.22	0.93	1.48	1.84	2.29	2.63	2.96
	50-min	0.71	1.13	1.40	1.75	2.00	2.26	0.85	1.35	1.68	2.10	2.41	2.71
	55-min	0.72	1.15	1.42	1.78	2.04	2.30	0.79	1.25	1.55	1.94	2.22	2.51
	1-hr	0.74	1.17	1.45	1.81	2.07	2.34	0.74	1.17	1.45	1.81	2.07	2.34
	2-hr	0.86	1.28	1.56	1.91	2.17	2.43	0.43	0.64	0.78	0.95	1.08	1.21
	3-hr	1.00	1.44	1.73	2.10	2.37	2.64	0.33	0.48	0.58	0.70	0.79	0.88
	6-hr	1.21	1.69	2.02	2.42	2.73	3.02	0.20	0.28	0.34	0.40	0.45	0.50
	12-hr	1.45	1.91	2.21	2.60	2.89	3.17	0.12	0.16	0.18	0.22	0.24	0.26
	24-hr	1.70	2.24	2.60	3.06	3.40	3.73	0.071	0.094	0.109	0.127	0.141	0.155

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Round Butte-1NNW	5-min	0.18	0.23	0.26	0.30	0.33	0.36	2.20	2.76	3.13	3.60	3.94	4.28
COOP: 247204	10-min	0.27	0.34	0.38	0.44	0.48	0.52	1.61	2.02	2.29	2.63	2.88	3.14
Elev: 3,100 ft	15-min	0.33	0.41	0.46	0.53	0.58	0.64	1.31	1.64	1.86	2.13	2.34	2.54
Modified POR: 55	20-min	0.35	0.44	0.50	0.57	0.62	0.68	1.05	1.31	1.49	1.71	1.87	2.04
Type: 2nd Order	25-min	0.37	0.47	0.53	0.61	0.66	0.72	0.89	1.12	1.27	1.46	1.60	1.73
	30-min	0.39	0.49	0.56	0.64	0.70	0.77	0.79	0.99	1.12	1.29	1.41	1.53
	35-min	0.40	0.51	0.57	0.66	0.72	0.79	0.69	0.87	0.98	1.13	1.24	1.35
	40-min	0.41	0.52	0.59	0.68	0.74	0.81	0.62	0.78	0.88	1.02	1.11	1.21
	45-min	0.43	0.53	0.60	0.69	0.76	0.83	0.57	0.71	0.81	0.93	1.01	1.10
	50-min	0.43	0.54	0.61	0.71	0.77	0.84	0.52	0.65	0.74	0.85	0.93	1.01
	55-min	0.44	0.55	0.63	0.72	0.79	0.86	0.48	0.60	0.68	0.78	0.86	0.93
	1-hr	0.45	0.56	0.64	0.73	0.80	0.87	0.45	0.56	0.64	0.73	0.80	0.87
	2-hr	0.52	0.64	0.73	0.83	0.91	0.98	0.26	0.32	0.36	0.41	0.45	0.49
	3-hr	0.59	0.72	0.80	0.91	0.99	1.07	0.20	0.24	0.27	0.30	0.33	0.36
	6-hr	0.76	1.11	1.34	1.64	1.86	2.08	0.13	0.19	0.22	0.27	0.31	0.35
	12-hr	0.98	1.34	1.58	1.89	2.11	2.34	0.08	0.11	0.13	0.16	0.18	0.19
	24-hr	1.23	1.65	1.92	2.27	2.53	2.78	0.051	0.069	0.080	0.095	0.105	0.116
Russell	5-min	0.25	0.35	0.42	0.50	0.56	0.62	2.99	4.20	5.00	6.01	6.76	7.50
COOP: 247258	10-min	0.37	0.51	0.61	0.73	0.82	0.91	2.19	3.07	3.66	4.40	4.94	5.49
Elev: 3,200 ft	15-min	0.44	0.62	0.74	0.89	1.00	1.11	1.78	2.49	2.97	3.57	4.01	4.45
Modified POR: 34	20-min	0.47	0.67	0.79	0.95	1.07	1.19	1.42	2.00	2.38	2.86	3.21	3.57
Type: 2nd Order	25-min	0.51	0.71	0.84	1.01	1.14	1.27	1.21	1.70	2.02	2.43	2.74	3.04
	30-min	0.54	0.75	0.89	1.07	1.21	1.34	1.07	1.50	1.79	2.15	2.42	2.68
	35-min	0.55	0.77	0.92	1.10	1.24	1.38	0.94	1.32	1.57	1.89	2.13	2.36
	40-min	0.56	0.79	0.94	1.13	1.27	1.41	0.85	1.19	1.41	1.70	1.91	2.12
	45-min	0.58	0.81	0.97	1.16	1.30	1.45	0.77	1.08	1.29	1.55	1.74	1.93
	50-min	0.59	0.83	0.98	1.18	1.33	1.47	0.71	0.99	1.18	1.42	1.59	1.77
	55-min	0.60	0.84	1.00	1.20	1.35	1.50	0.65	0.92	1.09	1.31	1.47	1.64
	1-hr	0.61	0.85	1.02	1.22	1.37	1.52	0.61	0.85	1.02	1.22	1.37	1.52
	2-hr	0.71	1.04	1.26	1.53	1.73	1.94	0.36	0.52	0.63	0.77	0.87	0.97
	3-hr	0.79	1.13	1.36	1.65	1.86	2.08	0.26	0.38	0.45	0.55	0.62	0.69
	6-hr	0.96	1.29	1.51	1.79	1.99	2.20	0.16	0.22	0.25	0.30	0.33	0.37
	12-hr	1.23	1.59	1.83	2.13	2.36	2.58	0.10	0.13	0.15	0.18	0.20	0.22
	24-hr	1.47	1.98	2.32	2.75	3.06	3.38	0.061	0.083	0.097	0.114	0.128	0.141

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Scobey-4NW	5-min	0.32	0.46	0.56	0.68	0.76	0.85	3.81	5.53	6.67	8.10	9.17	10.23
COOP: 247425	10-min	0.46	0.67	0.81	0.99	1.12	1.25	2.79	4.04	4.88	5.93	6.71	7.49
Elev: 2,374 ft	15-min	0.57	0.82	0.99	1.20	1.36	1.52	2.26	3.28	3.96	4.81	5.44	6.07
Modified POR: 29	20-min	0.60	0.88	1.06	1.28	1.45	1.62	1.81	2.63	3.17	3.85	4.36	4.87
Type: 2nd Order	25-min	0.64	0.93	1.12	1.37	1.55	1.73	1.54	2.24	2.70	3.28	3.71	4.14
	30-min	0.68	0.99	1.19	1.45	1.64	1.83	1.36	1.98	2.38	2.90	3.28	3.66
	35-min	0.70	1.01	1.22	1.49	1.68	1.88	1.20	1.74	2.10	2.55	2.89	3.22
	40-min	0.72	1.04	1.26	1.53	1.73	1.93	1.08	1.56	1.88	2.29	2.59	2.89
	45-min	0.74	1.07	1.29	1.56	1.77	1.98	0.98	1.42	1.72	2.09	2.36	2.63
	50-min	0.75	1.09	1.31	1.59	1.80	2.01	0.90	1.30	1.57	1.91	2.16	2.41
	55-min	0.76	1.10	1.33	1.62	1.83	2.04	0.83	1.21	1.45	1.77	2.00	2.23
	1-hr	0.77	1.12	1.35	1.65	1.86	2.08	0.77	1.12	1.35	1.65	1.86	2.08
	2-hr	0.95	1.33	1.58	1.90	2.14	2.37	0.47	0.66	0.79	0.95	1.07	1.19
	3-hr	1.08	1.49	1.76	2.10	2.35	2.60	0.36	0.50	0.59	0.70	0.78	0.87
	6-hr	1.24	1.67	1.96	2.32	2.58	2.85	0.21	0.28	0.33	0.39	0.43	0.47
	12-hr	1.44	1.94	2.28	2.69	3.00	3.31	0.12	0.16	0.19	0.22	0.25	0.28
	24-hr	1.65	2.23	2.61	3.09	3.45	3.81	0.069	0.093	0.109	0.129	0.144	0.159
Seeley Lake RS	5-min	0.18	0.24	0.28	0.33	0.37	0.40	2.19	2.89	3.36	3.95	4.38	4.82
COOP: 247448	10-min	0.27	0.35	0.41	0.48	0.53	0.59	1.60	2.12	2.46	2.89	3.21	3.53
Elev: 4,100 ft	15-min	0.33	0.43	0.50	0.59	0.65	0.71	1.30	1.72	1.99	2.34	2.60	2.86
Modified POR: 55	20-min	0.35	0.46	0.53	0.63	0.70	0.76	1.04	1.38	1.60	1.88	2.09	2.29
Type: 2nd Order	25-min	0.37	0.49	0.57	0.67	0.74	0.81	0.89	1.17	1.36	1.60	1.78	1.95
	30-min	0.39	0.52	0.60	0.71	0.78	0.86	0.78	1.04	1.20	1.41	1.57	1.72
	35-min	0.40	0.53	0.62	0.72	0.81	0.88	0.69	0.91	1.06	1.24	1.38	1.52
	40-min	0.41	0.55	0.63	0.74	0.83	0.91	0.62	0.82	0.95	1.12	1.24	1.36
	45-min	0.42	0.56	0.65	0.76	0.85	0.93	0.56	0.75	0.87	1.02	1.13	1.24
	50-min	0.43	0.57	0.66	0.78	0.86	0.95	0.52	0.68	0.79	0.93	1.03	1.14
	55-min	0.44	0.58	0.67	0.79	0.88	0.96	0.48	0.63	0.73	0.86	0.96	1.05
	1-hr	0.45	0.59	0.68	0.80	0.89	0.98	0.45	0.59	0.68	0.80	0.89	0.98
	2-hr	0.53	0.69	0.79	0.93	1.03	1.12	0.26	0.34	0.40	0.46	0.51	0.56
	3-hr	0.61	0.78	0.90	1.04	1.14	1.25	0.20	0.26	0.30	0.35	0.38	0.42
	6-hr	0.74	0.92	1.05	1.20	1.31	1.43	0.12	0.15	0.17	0.20	0.22	0.24
	12-hr	0.92	1.16	1.32	1.53	1.68	1.83	0.08	0.10	0.11	0.13	0.14	0.15
	24-hr	1.14	1.49	1.72	2.01	2.23	2.44	0.047	0.062	0.072	0.084	0.093	0.102

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Shelby Airport	5-min	0.25	0.36	0.42	0.51	0.57	0.64	3.05	4.28	5.09	6.12	6.88	7.63
COOP: 247501	10-min	0.37	0.52	0.62	0.75	0.84	0.93	2.23	3.13	3.72	4.48	5.03	5.59
Elev: 3,426 ft	15-min	0.45	0.63	0.76	0.91	1.02	1.13	1.81	2.54	3.02	3.63	4.08	4.53
Modified POR: 29	20-min	0.48	0.68	0.81	0.97	1.09	1.21	1.45	2.03	2.42	2.91	3.27	3.63
Type: 2nd Order	25-min	0.51	0.72	0.86	1.03	1.16	1.29	1.24	1.73	2.06	2.48	2.78	3.09
	30-min	0.55	0.77	0.91	1.09	1.23	1.37	1.09	1.53	1.82	2.19	2.46	2.73
	35-min	0.56	0.79	0.93	1.12	1.26	1.40	0.96	1.35	1.60	1.93	2.16	2.40
	40-min	0.57	0.81	0.96	1.15	1.30	1.44	0.86	1.21	1.44	1.73	1.94	2.16
	45-min	0.59	0.83	0.98	1.18	1.33	1.47	0.79	1.10	1.31	1.57	1.77	1.97
	50-min	0.60	0.84	1.00	1.20	1.35	1.50	0.72	1.01	1.20	1.44	1.62	1.80
	55-min	0.61	0.86	1.02	1.22	1.37	1.53	0.67	0.93	1.11	1.33	1.50	1.66
	1-hr	0.62	0.87	1.03	1.24	1.40	1.55	0.62	0.87	1.03	1.24	1.40	1.55
	2-hr	0.75	1.12	1.37	1.68	1.91	2.13	0.38	0.56	0.68	0.84	0.95	1.07
	3-hr	0.84	1.27	1.55	1.91	2.17	2.44	0.28	0.42	0.52	0.64	0.72	0.81
	6-hr	1.04	1.49	1.78	2.16	2.43	2.71	0.17	0.25	0.30	0.36	0.41	0.45
	12-hr	1.24	1.71	2.02	2.41	2.69	2.98	0.10	0.14	0.17	0.20	0.22	0.25
	24-hr	1.52	2.13	2.54	3.05	3.43	3.81	0.063	0.089	0.106	0.127	0.143	0.159
Silver Star	5-min	0.16	0.22	0.26	0.31	0.35	0.38	1.89	2.62	3.10	3.71	4.16	4.61
COOP: 247610	10-min	0.23	0.32	0.38	0.45	0.51	0.56	1.38	1.91	2.27	2.72	3.05	3.38
Elev: 4,585 ft	15-min	0.28	0.39	0.46	0.55	0.62	0.68	1.12	1.55	1.84	2.20	2.47	2.74
Modified POR: 58	20-min	0.30	0.41	0.49	0.59	0.66	0.73	0.90	1.24	1.47	1.76	1.98	2.19
Type: 2nd Order	25-min	0.32	0.44	0.52	0.63	0.70	0.78	0.76	1.06	1.26	1.50	1.69	1.87
	30-min	0.34	0.47	0.55	0.66	0.74	0.83	0.67	0.94	1.11	1.33	1.49	1.65
	35-min	0.35	0.48	0.57	0.68	0.76	0.85	0.59	0.82	0.98	1.17	1.31	1.45
	40-min	0.36	0.49	0.58	0.70	0.78	0.87	0.53	0.74	0.88	1.05	1.18	1.30
	45-min	0.36	0.51	0.60	0.72	0.80	0.89	0.49	0.67	0.80	0.96	1.07	1.19
	50-min	0.37	0.51	0.61	0.73	0.82	0.91	0.44	0.62	0.73	0.87	0.98	1.09
	55-min	0.38	0.52	0.62	0.74	0.83	0.92	0.41	0.57	0.68	0.81	0.91	1.01
	1-hr	0.38	0.53	0.63	0.75	0.85	0.94	0.38	0.53	0.63	0.75	0.85	0.94
	2-hr	0.44	0.69	0.85	1.06	1.21	1.36	0.22	0.34	0.43	0.53	0.60	0.68
	3-hr	0.51	0.76	0.93	1.14	1.30	1.46	0.17	0.25	0.31	0.38	0.43	0.49
	6-hr	0.67	0.93	1.10	1.32	1.48	1.64	0.11	0.16	0.18	0.22	0.25	0.27
	12-hr	0.86	1.18	1.38	1.64	1.84	2.03	0.07	0.10	0.12	0.14	0.15	0.17
	24-hr	1.05	1.35	1.54	1.79	1.98	2.16	0.044	0.056	0.064	0.075	0.082	0.090

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
St. Mary	5-min	0.23	0.39	0.49	0.62	0.72	0.82	2.74	4.63	5.88	7.46	8.63	9.79
COOP: 247292	10-min	0.33	0.56	0.72	0.91	1.05	1.19	2.00	3.39	4.30	5.46	6.31	7.17
Elev: 4,560 ft	15-min	0.41	0.69	0.87	1.11	1.28	1.45	1.63	2.75	3.49	4.43	5.12	5.81
Modified POR: 24	20-min	0.43	0.73	0.93	1.18	1.37	1.55	1.30	2.20	2.80	3.55	4.10	4.66
Type: 2nd Order	25-min	0.46	0.78	0.99	1.26	1.46	1.65	1.11	1.87	2.38	3.02	3.49	3.97
	30-min	0.49	0.83	1.05	1.33	1.54	1.75	0.98	1.66	2.10	2.67	3.09	3.50
	35-min	0.50	0.85	1.08	1.37	1.58	1.80	0.86	1.46	1.85	2.35	2.72	3.08
	40-min	0.52	0.87	1.11	1.40	1.63	1.84	0.77	1.31	1.66	2.11	2.44	2.77
	45-min	0.53	0.89	1.14	1.44	1.67	1.89	0.71	1.19	1.51	1.92	2.22	2.52
	50-min	0.54	0.91	1.15	1.47	1.70	1.92	0.65	1.09	1.39	1.76	2.03	2.31
	55-min	0.55	0.93	1.17	1.49	1.72	1.96	0.60	1.01	1.28	1.63	1.88	2.14
	1-hr	0.56	0.94	1.19	1.52	1.75	1.99	0.56	0.94	1.19	1.52	1.75	1.99
	2-hr	0.74	1.14	1.40	1.74	1.99	2.23	0.37	0.57	0.70	0.87	0.99	1.12
	3-hr	0.89	1.29	1.56	1.89	2.14	2.39	0.30	0.43	0.52	0.63	0.71	0.80
	6-hr	1.24	1.69	1.99	2.37	2.65	2.93	0.21	0.28	0.33	0.39	0.44	0.49
	12-hr	1.75	2.24	2.56	2.97	3.27	3.57	0.15	0.19	0.21	0.25	0.27	0.30
	24-hr	2.39	3.13	3.62	4.24	4.70	5.15	0.100	0.130	0.151	0.177	0.196	0.215
St. Regis	5-min	0.22	0.35	0.45	0.56	0.65	0.73	2.61	4.26	5.35	6.73	7.75	8.76
COOP: 247316	10-min	0.32	0.52	0.65	0.82	0.94	1.07	1.91	3.11	3.91	4.92	5.67	6.41
Elev: 2,600 ft	15-min	0.39	0.63	0.79	1.00	1.15	1.30	1.55	2.53	3.17	3.99	4.60	5.20
Modified POR: 30	20-min	0.41	0.67	0.85	1.07	1.23	1.39	1.24	2.02	2.54	3.20	3.69	4.17
Type: 2nd Order	25-min	0.44	0.72	0.90	1.13	1.31	1.48	1.06	1.72	2.16	2.72	3.14	3.55
	30-min	0.47	0.76	0.96	1.20	1.39	1.57	0.93	1.52	1.91	2.41	2.77	3.13
	35-min	0.48	0.78	0.98	1.23	1.42	1.61	0.82	1.34	1.68	2.12	2.44	2.76
	40-min	0.49	0.80	1.01	1.27	1.46	1.65	0.74	1.20	1.51	1.90	2.19	2.48
	45-min	0.50	0.82	1.03	1.30	1.50	1.69	0.67	1.10	1.38	1.73	1.99	2.26
	50-min	0.51	0.84	1.05	1.32	1.52	1.72	0.61	1.00	1.26	1.59	1.83	2.07
	55-min	0.52	0.85	1.07	1.34	1.55	1.75	0.57	0.93	1.17	1.47	1.69	1.91
	1-hr	0.53	0.86	1.09	1.37	1.57	1.78	0.53	0.86	1.09	1.37	1.57	1.78
	2-hr	0.58	0.89	1.09	1.35	1.54	1.73	0.29	0.44	0.55	0.67	0.77	0.86
	3-hr	0.65	0.95	1.14	1.39	1.57	1.76	0.22	0.32	0.38	0.46	0.52	0.59
	6-hr	0.79	1.04	1.20	1.41	1.56	1.71	0.13	0.17	0.20	0.23	0.26	0.29
	12-hr	1.01	1.29	1.47	1.69	1.86	2.03	0.08	0.11	0.12	0.14	0.16	0.17
	24-hr	1.19	1.48	1.68	1.92	2.11	2.29	0.050	0.062	0.070	0.080	0.088	0.095

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Stevensville	5-min	0.17	0.33	0.43	0.56	0.65	0.75	2.06	3.91	5.14	6.69	7.83	8.97
COOP: 247894	10-min	0.25	0.48	0.63	0.82	0.96	1.09	1.51	2.86	3.76	4.89	5.73	6.57
Elev: 3,375 ft	15-min	0.31	0.58	0.76	0.99	1.16	1.33	1.22	2.32	3.05	3.97	4.65	5.32
Modified POR: 22	20-min	0.33	0.62	0.81	1.06	1.24	1.42	0.98	1.86	2.44	3.18	3.73	4.27
Type: 2nd Order	25-min	0.35	0.66	0.87	1.13	1.32	1.51	0.84	1.58	2.08	2.71	3.17	3.63
	30-min	0.37	0.70	0.92	1.20	1.40	1.60	0.74	1.40	1.84	2.39	2.80	3.21
	35-min	0.38	0.72	0.94	1.23	1.44	1.65	0.65	1.23	1.62	2.10	2.47	2.82
	40-min	0.39	0.74	0.97	1.26	1.48	1.69	0.58	1.11	1.45	1.89	2.21	2.53
	45-min	0.40	0.76	0.99	1.29	1.51	1.73	0.53	1.01	1.32	1.72	2.02	2.31
	50-min	0.41	0.77	1.01	1.31	1.54	1.76	0.49	0.92	1.21	1.58	1.85	2.12
	55-min	0.41	0.78	1.03	1.34	1.57	1.79	0.45	0.85	1.12	1.46	1.71	1.96
	1-hr	0.42	0.80	1.04	1.36	1.59	1.82	0.42	0.80	1.04	1.36	1.59	1.82
	2-hr	0.47	0.84	1.08	1.39	1.62	1.85	0.24	0.42	0.54	0.70	0.81	0.92
	3-hr	0.53	0.88	1.12	1.41	1.63	1.85	0.18	0.29	0.37	0.47	0.54	0.62
	6-hr	0.68	1.02	1.24	1.53	1.74	1.95	0.11	0.17	0.21	0.25	0.29	0.33
	12-hr	0.85	1.23	1.48	1.81	2.04	2.28	0.07	0.10	0.12	0.15	0.17	0.19
	24-hr	1.02	1.38	1.61	1.91	2.13	2.35	0.043	0.057	0.067	0.080	0.089	0.098
Summit	5-min	0.17	0.26	0.32	0.39	0.44	0.49	2.09	3.11	3.78	4.63	5.27	5.89
COOP: 247978	10-min	0.25	0.38	0.46	0.57	0.64	0.72	1.53	2.27	2.77	3.39	3.85	4.31
Elev: 5,233 ft	15-min	0.31	0.46	0.56	0.69	0.78	0.87	1.24	1.84	2.24	2.75	3.13	3.50
Modified POR: 53	20-min	0.33	0.49	0.60	0.73	0.83	0.93	0.99	1.48	1.80	2.20	2.50	2.80
Type: 2nd Order	25-min	0.35	0.52	0.64	0.78	0.89	0.99	0.84	1.26	1.53	1.88	2.13	2.39
	30-min	0.37	0.56	0.68	0.83	0.94	1.05	0.75	1.11	1.35	1.66	1.88	2.11
	35-min	0.38	0.57	0.69	0.85	0.97	1.08	0.66	0.98	1.19	1.46	1.66	1.86
	40-min	0.39	0.58	0.71	0.87	0.99	1.11	0.59	0.88	1.07	1.31	1.49	1.67
	45-min	0.40	0.60	0.73	0.89	1.02	1.14	0.54	0.80	0.97	1.19	1.36	1.52
	50-min	0.41	0.61	0.74	0.91	1.03	1.16	0.49	0.73	0.89	1.09	1.24	1.39
	55-min	0.42	0.62	0.76	0.93	1.05	1.18	0.45	0.68	0.82	1.01	1.15	1.29
	1-hr	0.42	0.63	0.77	0.94	1.07	1.20	0.42	0.63	0.77	0.94	1.07	1.20
	2-hr	0.57	0.77	0.90	1.06	1.18	1.30	0.29	0.38	0.45	0.53	0.59	0.65
	3-hr	0.70	0.93	1.08	1.27	1.41	1.55	0.23	0.31	0.36	0.42	0.47	0.52
	6-hr	0.98	1.35	1.59	1.90	2.13	2.35	0.16	0.22	0.27	0.32	0.35	0.39
	12-hr	1.40	2.42	3.10	3.95	4.58	5.21	0.12	0.20	0.26	0.33	0.38	0.43
	24-hr	1.94	3.14	3.94	4.94	5.68	6.42	0.081	0.131	0.164	0.206	0.237	0.268

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Swan Lake	5-min	0.18	0.24	0.28	0.33	0.36	0.40	2.13	2.84	3.32	3.92	4.36	4.81
COOP: 248087	10-min	0.26	0.35	0.40	0.48	0.53	0.59	1.56	2.08	2.43	2.87	3.19	3.52
Elev: 3,100 ft	15-min	0.32	0.42	0.49	0.58	0.65	0.71	1.26	1.69	1.97	2.33	2.59	2.85
Modified POR: 46	20-min	0.34	0.45	0.53	0.62	0.69	0.76	1.01	1.35	1.58	1.86	2.08	2.29
Type: 2nd Order	25-min	0.36	0.48	0.56	0.66	0.74	0.81	0.86	1.15	1.34	1.59	1.77	1.95
	30-min	0.38	0.51	0.59	0.70	0.78	0.86	0.76	1.02	1.19	1.40	1.56	1.72
	35-min	0.39	0.52	0.61	0.72	0.80	0.88	0.67	0.89	1.04	1.23	1.37	1.51
	40-min	0.40	0.54	0.63	0.74	0.82	0.91	0.60	0.80	0.94	1.11	1.23	1.36
	45-min	0.41	0.55	0.64	0.76	0.84	0.93	0.55	0.73	0.85	1.01	1.12	1.24
	50-min	0.42	0.56	0.65	0.77	0.86	0.94	0.50	0.67	0.78	0.92	1.03	1.13
	55-min	0.42	0.57	0.66	0.78	0.87	0.96	0.46	0.62	0.72	0.85	0.95	1.05
	1-hr	0.43	0.58	0.67	0.80	0.89	0.98	0.43	0.58	0.67	0.80	0.89	0.98
	2-hr	0.56	0.70	0.80	0.92	1.01	1.10	0.28	0.35	0.40	0.46	0.50	0.55
	3-hr	0.67	0.83	0.94	1.08	1.19	1.29	0.22	0.28	0.31	0.36	0.40	0.43
	6-hr	0.89	1.13	1.29	1.49	1.64	1.79	0.15	0.19	0.21	0.25	0.27	0.30
	12-hr	1.18	1.55	1.79	2.09	2.31	2.54	0.10	0.13	0.15	0.17	0.19	0.21
	24-hr	1.58	2.03	2.33	2.70	2.98	3.25	0.066	0.085	0.097	0.113	0.124	0.136
Swift Dam	5-min	0.21	0.29	0.34	0.41	0.45	0.50	2.55	3.48	4.09	4.87	5.44	6.01
COOP: 248101	10-min	0.31	0.42	0.50	0.59	0.66	0.73	1.87	2.54	2.99	3.56	3.98	4.40
Elev: 4,780 ft	15-min	0.38	0.52	0.61	0.72	0.81	0.89	1.51	2.06	2.43	2.89	3.23	3.57
Modified POR: 42	20-min	0.40	0.55	0.65	0.77	0.86	0.95	1.21	1.65	1.95	2.32	2.59	2.86
Type: 2nd Order	25-min	0.43	0.59	0.69	0.82	0.92	1.01	1.03	1.41	1.66	1.97	2.20	2.44
	30-min	0.46	0.62	0.73	0.87	0.97	1.08	0.91	1.24	1.46	1.74	1.95	2.15
	35-min	0.47	0.64	0.75	0.89	1.00	1.10	0.80	1.09	1.29	1.53	1.71	1.89
	40-min	0.48	0.66	0.77	0.92	1.03	1.13	0.72	0.98	1.16	1.38	1.54	1.70
	45-min	0.49	0.67	0.79	0.94	1.05	1.16	0.66	0.90	1.05	1.25	1.40	1.55
	50-min	0.50	0.68	0.80	0.96	1.07	1.18	0.60	0.82	0.96	1.15	1.28	1.42
	55-min	0.51	0.70	0.82	0.97	1.09	1.20	0.56	0.76	0.89	1.06	1.19	1.31
	1-hr	0.52	0.71	0.83	0.99	1.11	1.22	0.52	0.71	0.83	0.99	1.11	1.22
	2-hr	0.69	0.89	1.01	1.18	1.30	1.42	0.34	0.44	0.51	0.59	0.65	0.71
	3-hr	0.86	1.04	1.16	1.32	1.43	1.54	0.29	0.35	0.39	0.44	0.48	0.51
	6-hr	1.25	1.47	1.62	1.81	1.95	2.09	0.21	0.25	0.27	0.30	0.33	0.35
	12-hr	1.70	2.06	2.30	2.60	2.82	3.04	0.14	0.17	0.19	0.22	0.24	0.25
	24-hr	2.23	2.89	3.32	3.87	4.28	4.68	0.093	0.120	0.138	0.161	0.178	0.195

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Terry-21NNW	5-min	0.32	0.44	0.52	0.62	0.69	0.77	3.85	5.28	6.23	7.42	8.31	9.19
COOP: 248169	10-min	0.47	0.64	0.76	0.90	1.01	1.12	2.82	3.86	4.56	5.43	6.08	6.72
Elev: 3,142 ft	15-min	0.57	0.78	0.92	1.10	1.23	1.36	2.29	3.13	3.69	4.40	4.93	5.45
Modified POR: 68	20-min	0.61	0.84	0.99	1.18	1.32	1.46	1.83	2.51	2.96	3.53	3.95	4.37
Type: 2nd Order	25-min	0.65	0.89	1.05	1.25	1.40	1.55	1.56	2.14	2.52	3.00	3.36	3.72
	30-min	0.69	0.94	1.11	1.33	1.49	1.64	1.38	1.89	2.23	2.65	2.97	3.29
	35-min	0.71	0.97	1.14	1.36	1.52	1.69	1.21	1.66	1.96	2.34	2.61	2.89
	40-min	0.73	0.99	1.17	1.40	1.56	1.73	1.09	1.49	1.76	2.10	2.35	2.59
	45-min	0.74	1.02	1.20	1.43	1.60	1.77	0.99	1.36	1.60	1.91	2.14	2.36
	50-min	0.76	1.04	1.22	1.46	1.63	1.80	0.91	1.24	1.47	1.75	1.96	2.17
	55-min	0.77	1.06	1.24	1.48	1.66	1.84	0.84	1.15	1.36	1.62	1.81	2.00
	1-hr	0.78	1.07	1.27	1.51	1.69	1.87	0.78	1.07	1.27	1.51	1.69	1.87
	2-hr	0.92	1.26	1.48	1.76	1.97	2.18	0.46	0.63	0.74	0.88	0.99	1.09
	3-hr	1.01	1.36	1.59	1.88	2.09	2.31	0.34	0.45	0.53	0.63	0.70	0.77
	6-hr	1.20	1.56	1.79	2.09	2.31	2.53	0.20	0.26	0.30	0.35	0.39	0.42
	12-hr	1.45	1.86	2.14	2.48	2.74	3.00	0.12	0.16	0.18	0.21	0.23	0.25
	24-hr	1.84	2.49	2.93	3.48	3.89	4.29	0.077	0.104	0.122	0.145	0.162	0.179
Townsend-12ENE	5-min	0.19	0.28	0.33	0.40	0.45	0.50	2.31	3.30	3.96	4.79	5.41	6.02
COOP: 248329	10-min	0.28	0.40	0.48	0.58	0.66	0.73	1.69	2.42	2.90	3.50	3.96	4.40
Elev: 5,050 ft	15-min	0.34	0.49	0.59	0.71	0.80	0.89	1.37	1.96	2.35	2.84	3.21	3.57
Modified POR: 60	20-min	0.37	0.52	0.63	0.76	0.86	0.95	1.10	1.57	1.88	2.28	2.57	2.86
Type: 2nd Order	25-min	0.39	0.56	0.67	0.81	0.91	1.02	0.93	1.34	1.60	1.94	2.19	2.44
	30-min	0.41	0.59	0.71	0.86	0.97	1.08	0.83	1.18	1.42	1.71	1.93	2.15
	35-min	0.42	0.61	0.73	0.88	0.99	1.11	0.73	1.04	1.25	1.51	1.70	1.89
	40-min	0.43	0.62	0.75	0.90	1.02	1.13	0.65	0.93	1.12	1.35	1.53	1.70
	45-min	0.45	0.64	0.76	0.92	1.04	1.16	0.59	0.85	1.02	1.23	1.39	1.55
	50-min	0.45	0.65	0.78	0.94	1.06	1.18	0.54	0.78	0.93	1.13	1.27	1.42
	55-min	0.46	0.66	0.79	0.96	1.08	1.20	0.50	0.72	0.86	1.04	1.18	1.31
	1-hr	0.47	0.67	0.80	0.97	1.10	1.22	0.47	0.67	0.80	0.97	1.10	1.22
	2-hr	0.55	0.74	0.87	1.04	1.16	1.28	0.28	0.37	0.44	0.52	0.58	0.64
	3-hr	0.65	0.82	0.94	1.08	1.19	1.29	0.22	0.27	0.31	0.36	0.40	0.43
	6-hr	0.83	1.00	1.11	1.26	1.36	1.47	0.14	0.17	0.19	0.21	0.23	0.24
	12-hr	1.11	1.35	1.51	1.72	1.87	2.02	0.09	0.11	0.13	0.14	0.16	0.17
	24-hr	1.43	1.75	1.97	2.24	2.44	2.64	0.060	0.073	0.082	0.093	0.102	0.110

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Vananda-6NE	5-min	0.28	0.46	0.57	0.72	0.83	0.94	3.36	5.49	6.89	8.67	9.99	11.30
COOP: 248511	10-min	0.41	0.67	0.84	1.06	1.22	1.38	2.46	4.01	5.04	6.35	7.31	8.27
Elev: 2,625 ft	15-min	0.50	0.81	1.02	1.29	1.48	1.68	1.99	3.26	4.09	5.15	5.93	6.71
Modified POR: 57	20-min	0.53	0.87	1.09	1.37	1.58	1.79	1.60	2.61	3.28	4.12	4.75	5.37
Type: 2nd Order	25-min	0.57	0.93	1.16	1.46	1.69	1.91	1.36	2.22	2.79	3.51	4.05	4.58
	30-min	0.60	0.98	1.23	1.55	1.79	2.02	1.20	1.96	2.47	3.10	3.57	4.04
	35-min	0.62	1.01	1.27	1.59	1.83	2.07	1.06	1.73	2.17	2.73	3.14	3.56
	40-min	0.63	1.03	1.30	1.63	1.88	2.13	0.95	1.55	1.95	2.45	2.82	3.19
	45-min	0.65	1.06	1.33	1.67	1.93	2.18	0.87	1.41	1.77	2.23	2.57	2.91
	50-min	0.66	1.08	1.35	1.70	1.96	2.22	0.79	1.29	1.63	2.04	2.36	2.66
	55-min	0.67	1.10	1.38	1.73	2.00	2.26	0.73	1.20	1.50	1.89	2.18	2.46
	1-hr	0.68	1.12	1.40	1.76	2.03	2.30	0.68	1.12	1.40	1.76	2.03	2.30
	2-hr	0.80	1.26	1.58	1.97	2.26	2.55	0.40	0.63	0.79	0.98	1.13	1.27
	3-hr	0.86	1.35	1.68	2.08	2.39	2.69	0.29	0.45	0.56	0.69	0.80	0.90
	6-hr	1.07	1.68	2.08	2.59	2.97	3.34	0.18	0.28	0.35	0.43	0.49	0.56
	12-hr	1.23	1.81	2.20	2.69	3.05	3.41	0.10	0.15	0.18	0.22	0.25	0.28
	24-hr	1.43	2.01	2.40	2.88	3.24	3.60	0.060	0.084	0.100	0.120	0.135	0.150
West Glacier	5-min	0.18	0.23	0.27	0.31	0.35	0.38	2.15	2.80	3.22	3.76	4.16	4.56
COOP: 248809	10-min	0.26	0.34	0.39	0.46	0.51	0.56	1.58	2.05	2.36	2.75	3.05	3.34
Elev: 3,154 ft	15-min	0.32	0.42	0.48	0.56	0.62	0.68	1.28	1.66	1.91	2.23	2.47	2.71
Modified POR: 38	20-min	0.34	0.44	0.51	0.60	0.66	0.72	1.02	1.33	1.53	1.79	1.98	2.17
Type: 2nd Order	25-min	0.36	0.47	0.54	0.63	0.70	0.77	0.87	1.13	1.31	1.52	1.68	1.85
	30-min	0.39	0.50	0.58	0.67	0.74	0.82	0.77	1.00	1.15	1.35	1.49	1.63
	35-min	0.40	0.51	0.59	0.69	0.76	0.84	0.68	0.88	1.01	1.18	1.31	1.43
	40-min	0.41	0.53	0.61	0.71	0.78	0.86	0.61	0.79	0.91	1.06	1.18	1.29
	45-min	0.42	0.54	0.62	0.73	0.80	0.88	0.55	0.72	0.83	0.97	1.07	1.17
	50-min	0.42	0.55	0.63	0.74	0.82	0.90	0.51	0.66	0.76	0.89	0.98	1.07
	55-min	0.43	0.56	0.64	0.75	0.83	0.91	0.47	0.61	0.70	0.82	0.91	0.99
	1-hr	0.44	0.57	0.66	0.76	0.85	0.93	0.44	0.57	0.66	0.76	0.85	0.93
	2-hr	0.55	0.68	0.77	0.88	0.96	1.04	0.27	0.34	0.38	0.44	0.48	0.52
	3-hr	0.63	0.76	0.84	0.95	1.02	1.10	0.21	0.25	0.28	0.32	0.34	0.37
	6-hr	0.85	0.99	1.09	1.21	1.30	1.39	0.14	0.17	0.18	0.20	0.22	0.23
	12-hr	1.12	1.31	1.44	1.60	1.71	1.83	0.09	0.11	0.12	0.13	0.14	0.15
	24-hr	1.45	1.72	1.90	2.13	2.30	2.47	0.060	0.072	0.079	0.089	0.096	0.103

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Westby	5-min	0.33	0.47	0.57	0.68	0.77	0.86	3.98	5.68	6.80	8.22	9.27	10.31
COOP: 248777	10-min	0.49	0.69	0.83	1.00	1.13	1.26	2.92	4.15	4.98	6.01	6.78	7.54
Elev: 2,105 ft	15-min	0.59	0.84	1.01	1.22	1.38	1.53	2.36	3.37	4.04	4.88	5.50	6.12
Modified POR: 50	20-min	0.63	0.90	1.08	1.30	1.47	1.63	1.90	2.70	3.23	3.91	4.41	4.90
Type: 2nd Order	25-min	0.67	0.96	1.15	1.39	1.56	1.74	1.61	2.30	2.75	3.33	3.75	4.17
	30-min	0.71	1.02	1.22	1.47	1.66	1.84	1.43	2.03	2.43	2.94	3.32	3.69
	35-min	0.73	1.04	1.25	1.51	1.70	1.89	1.25	1.79	2.14	2.59	2.92	3.25
	40-min	0.75	1.07	1.28	1.55	1.75	1.94	1.13	1.60	1.92	2.32	2.62	2.91
	45-min	0.77	1.10	1.31	1.59	1.79	1.99	1.03	1.46	1.75	2.12	2.39	2.65
	50-min	0.78	1.12	1.34	1.61	1.82	2.03	0.94	1.34	1.60	1.94	2.19	2.43
	55-min	0.80	1.13	1.36	1.64	1.85	2.06	0.87	1.24	1.48	1.79	2.02	2.25
	1-hr	0.81	1.15	1.38	1.67	1.88	2.10	0.81	1.15	1.38	1.67	1.88	2.10
	2-hr	0.95	1.36	1.63	1.97	2.22	2.47	0.48	0.68	0.81	0.99	1.11	1.24
	3-hr	1.06	1.47	1.74	2.08	2.33	2.58	0.35	0.49	0.58	0.69	0.78	0.86
	6-hr	1.22	1.65	1.93	2.29	2.55	2.82	0.20	0.27	0.32	0.38	0.43	0.47
	12-hr	1.40	1.89	2.22	2.62	2.93	3.23	0.12	0.16	0.18	0.22	0.24	0.27
	24-hr	1.63	2.18	2.54	3.01	3.35	3.69	0.068	0.091	0.106	0.125	0.139	0.154
White Sulphur Springs	5-min	0.22	0.30	0.36	0.42	0.47	0.52	2.68	3.63	4.27	5.07	5.66	6.25
COOP: 248927	10-min	0.33	0.44	0.52	0.62	0.69	0.76	1.96	2.66	3.12	3.71	4.14	4.57
Elev: 5,160 ft	15-min	0.40	0.54	0.63	0.75	0.84	0.93	1.59	2.16	2.53	3.01	3.36	3.71
Modified POR: 28	20-min	0.42	0.58	0.68	0.80	0.90	0.99	1.27	1.73	2.03	2.41	2.69	2.97
Type: 2nd Order	25-min	0.45	0.61	0.72	0.85	0.95	1.05	1.08	1.47	1.73	2.05	2.29	2.53
	30-min	0.48	0.65	0.76	0.91	1.01	1.12	0.96	1.30	1.53	1.81	2.02	2.24
	35-min	0.49	0.67	0.78	0.93	1.04	1.15	0.84	1.14	1.34	1.59	1.78	1.97
	40-min	0.50	0.68	0.80	0.95	1.07	1.18	0.76	1.03	1.21	1.43	1.60	1.77
	45-min	0.52	0.70	0.82	0.98	1.09	1.21	0.69	0.94	1.10	1.30	1.46	1.61
	50-min	0.53	0.71	0.84	1.00	1.11	1.23	0.63	0.86	1.01	1.19	1.33	1.47
	55-min	0.54	0.73	0.85	1.01	1.13	1.25	0.58	0.79	0.93	1.10	1.23	1.36
	1-hr	0.54	0.74	0.87	1.03	1.15	1.27	0.54	0.74	0.87	1.03	1.15	1.27
	2-hr	0.66	0.89	1.05	1.24	1.39	1.53	0.33	0.45	0.52	0.62	0.69	0.76
	3-hr	0.73	1.03	1.23	1.49	1.67	1.86	0.24	0.34	0.41	0.50	0.56	0.62
	6-hr	0.89	1.20	1.40	1.65	1.84	2.03	0.15	0.20	0.23	0.28	0.31	0.34
	12-hr	1.07	1.38	1.59	1.85	2.04	2.23	0.09	0.12	0.13	0.15	0.17	0.19
	24-hr	1.33	1.70	1.95	2.26	2.49	2.72	0.055	0.071	0.081	0.094	0.104	0.113

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Willow Creek	5-min	0.19	0.23	0.25	0.28	0.31	0.33	2.29	2.73	3.02	3.39	3.66	3.94
COOP: 249008	10-min	0.28	0.33	0.37	0.41	0.45	0.48	1.68	2.00	2.21	2.48	2.68	2.88
Elev: 4,163 ft	15-min	0.34	0.41	0.45	0.50	0.54	0.58	1.36	1.62	1.79	2.01	2.18	2.34
Modified POR: 20	20-min	0.36	0.43	0.48	0.54	0.58	0.62	1.09	1.30	1.44	1.61	1.74	1.87
Type: 2nd Order	25-min	0.39	0.46	0.51	0.57	0.62	0.66	0.93	1.11	1.22	1.37	1.48	1.59
	30-min	0.41	0.49	0.54	0.61	0.66	0.70	0.82	0.98	1.08	1.21	1.31	1.41
	35-min	0.42	0.50	0.56	0.62	0.67	0.72	0.72	0.86	0.95	1.07	1.15	1.24
	40-min	0.43	0.51	0.57	0.64	0.69	0.74	0.65	0.77	0.85	0.96	1.04	1.11
	45-min	0.44	0.53	0.58	0.65	0.71	0.76	0.59	0.70	0.78	0.87	0.94	1.01
	50-min	0.45	0.54	0.59	0.67	0.72	0.77	0.54	0.64	0.71	0.80	0.86	0.93
	55-min	0.46	0.55	0.60	0.68	0.73	0.79	0.50	0.60	0.66	0.74	0.80	0.86
	1-hr	0.47	0.56	0.61	0.69	0.74	0.80	0.47	0.56	0.61	0.69	0.74	0.80
	2-hr	0.54	0.65	0.71	0.80	0.86	0.92	0.27	0.32	0.36	0.40	0.43	0.46
	3-hr	0.63	0.82	0.94	1.09	1.21	1.32	0.21	0.27	0.31	0.36	0.40	0.44
	6-hr	0.79	1.04	1.20	1.41	1.56	1.71	0.13	0.17	0.20	0.23	0.26	0.29
	12-hr	0.99	1.31	1.52	1.79	1.99	2.19	0.08	0.11	0.13	0.15	0.17	0.18
	24-hr	1.30	1.63	1.84	2.12	2.32	2.52	0.054	0.068	0.077	0.088	0.097	0.105
Winnett-8ESE	5-min	0.25	0.36	0.44	0.53	0.60	0.67	2.98	4.33	5.23	6.36	7.20	8.03
COOP: 249052	10-min	0.36	0.53	0.64	0.78	0.88	0.98	2.18	3.17	3.83	4.65	5.27	5.88
Elev: 2,810 ft	15-min	0.44	0.64	0.78	0.94	1.07	1.19	1.77	2.57	3.10	3.78	4.27	4.77
Modified POR: 61	20-min	0.47	0.69	0.83	1.01	1.14	1.27	1.42	2.06	2.49	3.03	3.42	3.82
Type: 2nd Order	25-min	0.50	0.73	0.88	1.07	1.21	1.36	1.21	1.75	2.12	2.58	2.92	3.25
	30-min	0.53	0.78	0.94	1.14	1.29	1.44	1.07	1.55	1.87	2.28	2.58	2.87
	35-min	0.55	0.80	0.96	1.17	1.32	1.48	0.94	1.36	1.65	2.00	2.27	2.53
	40-min	0.56	0.82	0.98	1.20	1.36	1.51	0.84	1.22	1.48	1.80	2.03	2.27
	45-min	0.58	0.84	1.01	1.23	1.39	1.55	0.77	1.12	1.35	1.64	1.85	2.07
	50-min	0.59	0.85	1.03	1.25	1.41	1.58	0.70	1.02	1.23	1.50	1.70	1.89
	55-min	0.60	0.87	1.05	1.27	1.44	1.61	0.65	0.94	1.14	1.39	1.57	1.75
	1-hr	0.61	0.88	1.06	1.29	1.46	1.63	0.61	0.88	1.06	1.29	1.46	1.63
	2-hr	0.73	1.09	1.33	1.64	1.86	2.09	0.36	0.55	0.67	0.82	0.93	1.04
	3-hr	0.82	1.23	1.49	1.83	2.09	2.34	0.27	0.41	0.50	0.61	0.70	0.78
	6-hr	1.00	1.39	1.65	1.98	2.22	2.46	0.17	0.23	0.27	0.33	0.37	0.41
	12-hr	1.22	1.62	1.89	2.22	2.47	2.72	0.10	0.14	0.16	0.19	0.21	0.23
	24-hr	1.52	1.98	2.29	2.67	2.96	3.24	0.063	0.083	0.095	0.111	0.123	0.135

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Wisdom	5-min	0.16	0.22	0.27	0.32	0.37	0.41	1.89	2.69	3.22	3.90	4.39	4.89
COOP: 249067	10-min	0.23	0.33	0.39	0.48	0.54	0.60	1.38	1.97	2.36	2.85	3.22	3.58
Elev: 6,060 ft	15-min	0.28	0.40	0.48	0.58	0.65	0.73	1.12	1.60	1.91	2.31	2.61	2.90
Modified POR: 58	20-min	0.30	0.43	0.51	0.62	0.70	0.78	0.90	1.28	1.53	1.85	2.09	2.33
Type: 2nd Order	25-min	0.32	0.45	0.54	0.66	0.74	0.82	0.76	1.09	1.31	1.58	1.78	1.98
	30-min	0.34	0.48	0.58	0.70	0.79	0.87	0.68	0.96	1.15	1.39	1.57	1.75
	35-min	0.35	0.49	0.59	0.72	0.81	0.90	0.59	0.85	1.01	1.23	1.38	1.54
	40-min	0.36	0.51	0.61	0.73	0.83	0.92	0.53	0.76	0.91	1.10	1.24	1.38
	45-min	0.36	0.52	0.62	0.75	0.85	0.94	0.49	0.69	0.83	1.00	1.13	1.26
	50-min	0.37	0.53	0.63	0.77	0.86	0.96	0.45	0.63	0.76	0.92	1.04	1.15
	55-min	0.38	0.54	0.64	0.78	0.88	0.98	0.41	0.59	0.70	0.85	0.96	1.07
	1-hr	0.38	0.55	0.66	0.79	0.89	0.99	0.38	0.55	0.66	0.79	0.89	0.99
	2-hr	0.45	0.63	0.75	0.90	1.01	1.12	0.22	0.31	0.37	0.45	0.51	0.56
	3-hr	0.51	0.68	0.80	0.95	1.06	1.17	0.17	0.23	0.27	0.32	0.35	0.39
	6-hr	0.62	0.80	0.92	1.06	1.17	1.28	0.10	0.13	0.15	0.18	0.20	0.21
	12-hr	0.80	1.02	1.16	1.35	1.48	1.61	0.07	0.09	0.10	0.11	0.12	0.13
	24-hr	0.98	1.20	1.36	1.55	1.69	1.83	0.041	0.050	0.056	0.064	0.070	0.076
West Yellowstone	5-min	0.22	0.36	0.45	0.57	0.66	0.74	2.60	4.29	5.40	6.81	7.86	8.90
COOP: 248866	10-min	0.32	0.52	0.66	0.83	0.96	1.09	1.90	3.14	3.95	4.99	5.75	6.51
Elev: 6,660 ft	15-min	0.39	0.64	0.80	1.01	1.17	1.32	1.54	2.54	3.21	4.04	4.67	5.28
Modified POR: 25	20-min	0.41	0.68	0.86	1.08	1.25	1.41	1.24	2.04	2.57	3.24	3.74	4.23
Type: 2nd Order	25-min	0.44	0.72	0.91	1.15	1.33	1.50	1.05	1.74	2.19	2.76	3.18	3.60
	30-min	0.47	0.77	0.97	1.22	1.41	1.59	0.93	1.53	1.93	2.44	2.81	3.18
	35-min	0.48	0.79	0.99	1.25	1.44	1.63	0.82	1.35	1.70	2.14	2.47	2.80
	40-min	0.49	0.81	1.02	1.28	1.48	1.68	0.74	1.21	1.53	1.93	2.22	2.51
	45-min	0.50	0.83	1.04	1.32	1.52	1.72	0.67	1.10	1.39	1.75	2.02	2.29
	50-min	0.51	0.84	1.06	1.34	1.54	1.75	0.61	1.01	1.27	1.61	1.85	2.10
	55-min	0.52	0.86	1.08	1.36	1.57	1.78	0.57	0.93	1.18	1.49	1.71	1.94
	1-hr	0.53	0.87	1.10	1.39	1.60	1.81	0.53	0.87	1.10	1.39	1.60	1.81
	2-hr	0.62	0.98	1.22	1.52	1.74	1.96	0.31	0.49	0.61	0.76	0.87	0.98
	3-hr	0.69	1.08	1.34	1.66	1.91	2.15	0.23	0.36	0.45	0.55	0.64	0.72
	6-hr	0.88	1.27	1.53	1.85	2.09	2.33	0.15	0.21	0.25	0.31	0.35	0.39
	12-hr	1.05	1.42	1.66	1.96	2.19	2.42	0.09	0.12	0.14	0.16	0.18	0.20
	24-hr	1.28	1.60	1.82	2.09	2.29	2.48	0.053	0.067	0.076	0.087	0.095	0.103

Station Information	Storm Duration	Depth at Selected Recurrence Intervals (inches)						Intensity at Selected Recurrence Intervals (inches/hour)					
		2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Yellowtail Dam	5-min	0.28	0.38	0.45	0.54	0.61	0.67	3.31	4.58	5.42	6.49	7.28	8.06
COOP: 249240	10-min	0.40	0.56	0.66	0.79	0.89	0.98	2.42	3.35	3.97	4.75	5.33	5.90
Elev: 3,305 ft	15-min	0.49	0.68	0.80	0.96	1.08	1.20	1.96	2.72	3.22	3.85	4.32	4.79
Modified POR: 39	20-min	0.52	0.73	0.86	1.03	1.15	1.28	1.57	2.18	2.58	3.09	3.46	3.84
Type: 2nd Order	25-min	0.56	0.77	0.91	1.09	1.23	1.36	1.34	1.85	2.20	2.63	2.95	3.26
	30-min	0.59	0.82	0.97	1.16	1.30	1.44	1.18	1.64	1.94	2.32	2.60	2.88
	35-min	0.61	0.84	1.00	1.19	1.34	1.48	1.04	1.44	1.71	2.04	2.29	2.54
	40-min	0.62	0.86	1.02	1.22	1.37	1.52	0.93	1.29	1.53	1.83	2.06	2.28
	45-min	0.64	0.88	1.05	1.25	1.41	1.56	0.85	1.18	1.40	1.67	1.87	2.08
	50-min	0.65	0.90	1.07	1.27	1.43	1.58	0.78	1.08	1.28	1.53	1.72	1.90
	55-min	0.66	0.92	1.08	1.30	1.45	1.61	0.72	1.00	1.18	1.41	1.59	1.76
	1-hr	0.67	0.93	1.10	1.32	1.48	1.64	0.67	0.93	1.10	1.32	1.48	1.64
	2-hr	0.81	1.18	1.43	1.74	1.97	2.20	0.40	0.59	0.71	0.87	0.98	1.10
	3-hr	0.89	1.31	1.58	1.93	2.19	2.45	0.30	0.44	0.53	0.64	0.73	0.82
	6-hr	1.13	1.62	1.95	2.36	2.66	2.96	0.19	0.27	0.32	0.39	0.44	0.49
	12-hr	1.49	2.14	2.57	3.11	3.51	3.90	0.12	0.18	0.21	0.26	0.29	0.33
	24-hr	1.90	2.67	3.19	3.83	4.31	4.79	0.079	0.111	0.133	0.160	0.180	0.199
Zortman	5-min	0.32	0.47	0.57	0.70	0.79	0.89	3.87	5.69	6.89	8.41	9.54	10.66
COOP: 249900	10-min	0.47	0.69	0.84	1.03	1.16	1.30	2.83	4.16	5.04	6.15	6.98	7.80
Elev: 4,035 ft	15-min	0.57	0.84	1.02	1.25	1.42	1.58	2.30	3.38	4.09	4.99	5.66	6.33
Modified POR: 35	20-min	0.61	0.90	1.09	1.33	1.51	1.69	1.84	2.71	3.28	4.00	4.54	5.07
Type: 2nd Order	25-min	0.65	0.96	1.16	1.42	1.61	1.80	1.57	2.30	2.79	3.41	3.86	4.32
	30-min	0.69	1.02	1.23	1.50	1.71	1.91	1.39	2.04	2.47	3.01	3.41	3.81
	35-min	0.71	1.04	1.27	1.54	1.75	1.96	1.22	1.79	2.17	2.65	3.00	3.35
	40-min	0.73	1.07	1.30	1.58	1.80	2.01	1.09	1.61	1.95	2.38	2.69	3.01
	45-min	0.75	1.10	1.33	1.62	1.84	2.06	1.00	1.46	1.77	2.17	2.46	2.74
	50-min	0.76	1.12	1.35	1.65	1.87	2.09	0.91	1.34	1.63	1.98	2.25	2.51
	55-min	0.77	1.14	1.38	1.68	1.91	2.13	0.84	1.24	1.50	1.83	2.08	2.32
	1-hr	0.79	1.16	1.40	1.71	1.94	2.17	0.79	1.16	1.40	1.71	1.94	2.17
	2-hr	0.93	1.22	1.41	1.65	1.82	2.00	0.47	0.61	0.70	0.82	0.91	1.00
	3-hr	1.04	1.30	1.48	1.70	1.87	2.04	0.35	0.43	0.49	0.57	0.62	0.68
	6-hr	1.34	1.71	1.95	2.27	2.50	2.73	0.22	0.28	0.33	0.38	0.42	0.45
	12-hr	1.91	2.60	3.06	3.64	4.06	4.49	0.16	0.22	0.25	0.30	0.34	0.37
	24-hr	2.57	3.64	4.35	5.25	5.91	6.57	0.107	0.152	0.181	0.219	0.246	0.274