Gile Flowage Storage Reservoir Project
FERC Project No. 15055

Exhibit A
Description of Project

Final License Application

Prepared for

Northern States Power Company
a Wisconsin Corporation

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TABLE OF CONTENTS

TABLES

FIGURE

APPENDICES

LIST OF ABBREVIATIONS

cfs.....cubic feet per second
FERC.....Federal Energy Regulatory Commission
FLA.....Final License Application
NGVD.....National Geodetic Vertical Datum of 1929
NSPW.....Northern States Power Company, a Wisconsin corporation
O&M.....Operation and management
Project.....Superior Falls Hydroelectric Project
USGS.....United States Geological Survey
WDNR.....Wisconsin Department of Natural Resources

1. Introduction

Northern States Power Company, a Wisconsin corporation (NSPW), is the owner and operator of the Gile Flowage Storage Reservoir Project (Gile Project or Project). The Project was constructed in 1940 to store water for downstream generation at NSPW's Saxon Falls (FERC No. 2610) and Superior Falls (FERC No. 2587) hydroelectric projects. The Gile Project is currently unlicensed and no new development is proposed.

The Project is located on the West Fork of the Montreal River approximately 8 river miles upstream of the confluence with the main branch of the Montreal River and approximately 20 miles upstream of the Saxon Falls Hydroelectric Project. The Project is located within the Towns of Pence and Carey, Iron County, Wisconsin and approximately 2.5 miles southwest of the neighboring Cities of Hurley, Wisconsin and Ironwood, Michigan and approximately 33 miles southeast of the City of Ashland, Wisconsin. The watershed above the Gile Dam is approximately 70 square miles.[1] **Appendix A-1** of this application includes a map illustrating the general location of the Project.

Appendix A-2 includes an aerial photograph depicting the Project's primary structures and facilities. The Project works consist of (1) a 32.5-foot-high[2] and 903-foot long earthen and concrete dam that includes a west earthen embankment, a concrete spillway section, an east earthen embankment; (2) a storage reservoir with a maximum surface area of 3,454 acres[3] and a maximum gross storage capacity of approximately 32,713 acre-feet[4] at an elevation of 1490.0 feet National Geodetic Vertical Datum of 1929 (NGVD);[5] and (3) appurtenant facilities.

A detailed description of each structure is provided in the following paragraphs. The Project boundary is provided in Exhibit G of this application.

2. Description of Dam Structures

The multi-section dam has a total length of 903 feet, a maximum height of 32.5 feet[6] and a maximum cross-sectional width at the base of the concrete spillway section of 144 feet.[7] The different sections, from left to right looking downstream, consist of a west earthen embankment, a concrete spillway section, an east earthen embankment, and appurtenant facilities.

2.1 West Earthen Embankment

The west earthen embankment is approximately 300 feet long with a maximum height of 32.5 feet[8] and a crest elevation of 1495.0 feet NGVD. It has a 10-foot-wide crest with 3:1 (H:V) upstream slope and 2.5:1 downstream slope. The east side of the west embankment is connected to the concrete spillway section. The maximum cross-sectional width at the base along the west side of the concrete spillway section is

[1] Unless otherwise noted, all information in was derived from the 2016 Consultant Safety Inspection Report for Gile Reservoir Dam-WDNR Field File No. 26.09 completed by Ayres Associates (Ayres Associates, 2016).
[2] From the bottom of the cutoff key to the top of the operator's deck as shown in Exhibit F.
[3] The acreage was calculated using LiDAR information.
[4] Calculation was derived from the updated bathymetric map included as Figure 10 of the Aquatic and Terrestrial Invasive Species Study Report (GAI Consultants, 2022).
[5] NGVD is assumed to be the same datum as mean sea level.
[6] From the bottom of the cutoff key to the top of the operator's deck as shown in Exhibit F.
[7] From the upstream face of the upstream wing wall to the downstream face of the downstream wing wall.
[8] From the bottom of the cutoff key to the top of the operator's deck as shown in Exhibit F.

approximately 144 feet.[9] Beginning at the west side of the concrete spillway, the earthen embankment contains a steel sheet pile cutoff wall with a top elevation of 1493.0 feet NGVD that extends approximately 200 feet to the west. The upstream side of the embankment is protected by riprap on filter fabric to elevation 1493.0 feet NGVD. The downstream portion of the embankment near the tailwater is also protected with riprap. A drain system consisting of a 4-inch diameter vitrified clay header pipe and transverse laterals spaced 14 feet on center extends from the sheet pile cutoff wall to the downstream toe. A drainage ditch collects water from the drains and conveys it to the tailwater.

2.2 Concrete Spillway Section

The 27.6-foot-long[10] concrete spillway section, with a maximum height of 32.5 feet[11], is a reinforced concrete gravity structure with a left (west) abutment, a sluiceway bay (with a 6-foot wide by 6-foot high slide gate and a rectangular outlet approximately 35 feet long, 6 feet wide and 5 feet high with an invert elevation of 1465.5 feet NGVD), a radial gate bay, and a right (east) abutment. A steel sheet pile cutoff wall is located under the structure along the upstream side of the radial gate spillway. Much of the structure is founded on wood piles. A concrete operator's bridge spans the structure at a top elevation of 1495.0 feet NGVD.

The sluiceway bay normally acts as a minimum flow release structure; however, it also serves to pass water downstream during periods of high flow and during winter conditions. The sluiceway features a trash rack with a clear spacing of 2.625 inches[12] and has the ability to pass a maximum flow of approximately 1,000 cfs.[13] The trashracks are typically raked once or twice per year.

The radial gate bay is a hollow structure with foundation drains and a crest elevation of 1478.0 feet NGVD. The steel radial gate is 16 feet wide and 12 feet high and is operated with an electric hoist located inside the gatehouse. The top of the closed radial gate has an elevation of 1490.0 feet NGVD.

A concrete slab supports the rollway and downstream walls and forms the bottom of the stilling basin. The upstream wing walls and downstream wing walls are constructed at a 15-degree flare and 12-degree flare, respectively, to the centerline of the water flow. The wing walls vary in height to match the embankment cross-section. Buttresses are located on the outside of the wing walls and concrete strut beams brace the downstream walls. Weep holes are located at various locations through the wing walls. The elevation of the top of stilling basin floor is 1465.5 feet NGVD.

Constructed on the operator's deck of the concrete spillway section is a 27.5-foot-wide and 11.8-foot-high gate house constructed of brick and extending approximately 10.5 feet downstream of the operator

[9] From the upstream face of the upstream wing wall to the downstream face of the downstream wing wall.
[10] As shown in Exhibit F.
[11] From the bottom of the cutoff key to the top of the operator's deck as shown in Exhibit F.
[12] Specifications for the bars and spacings as shown on the 1940 design drawing (NSP Drawing Nos. NH-238101-5 and 16). The top of the trash racks are sloped 20 degrees downstream from vertical, with a bar thickness of 0.375 inches. The rack is submerged at normal headwater elevation and it is supported by the dam structure on the top, one 0.75 foot-high I-beam support,, and a notch in the concrete foundation at the bottom, 4 inches high. There are no other frame supports. The spacing of the bars is held in place by five horizontal, 0.875-inch diameter tie rods passing through each 0.375-inch bar and welded in place. However, only three of the horizontal tie bars restrict flow beyond the restrictions provided by the other supports. The effective vertical height of the trash rack is 16 feet minus 1.3 feet or 14.7 feet. The effective width is 6 feet minus 0.75 feet or 5.25 feet. This results in an effective opening of approximately 77 square feet. Due to the size of the spacing, the rack does not require raking.
[13] NSPW Proposed Study Plan Clarifications eFiled with the Commission on May 3, 2021 (NSPW, 2021a; NSPW, 2021b).

bridge.[14] The gate house provides security and protection for the two electric gate hoists. The gate house dimensions are obtained from the Exhibit F Drawings.

2.3 East Earthen Embankment

The east earthen embankment is approximately 575 feet long with a maximum height of 32.5 feet[15] and a crest elevation of 1495.0 feet NGVD. It has a 10-foot-wide crest with 3:1 upstream slope and 2.5:1 downstream slope. The west side of the east embankment is connected to the concrete spillway section. The maximum cross-sectional width at the base along the east side of the concrete spillway section is approximately 144 feet.[16] Beginning at the east side of the concrete spillway, the earthen embankment contains a steel sheet pile cutoff wall with a top elevation of 1493.0 feet NGVD that extends approximately 330 feet to the east. The upstream side of the embankment is protected by riprap on filter fabric to elevation 1493.0 feet NGVD. The downstream portion of the embankment near the tailwater is also protected with riprap. A drain system consisting of a 4-inch diameter vitrified clay header pipe and transverse laterals spaced 14 feet on center extends from the sheet pile cutoff wall to the downstream toe. A drainage ditch collects water from the drains and conveys it to the tailwater.

3. Description of Storage Reservoir

The Gile Flowage Storage Reservoir was constructed in 1940 to store water for use in downstream hydroelectric generation. It has a surface area of approximately 3,454 acres[17] with a gross storage capacity of 32,713 acre-feet at an elevation of 1,490 feet NGVD. It has a maximum depth of 25 feet[18] and an average depth of 9.5 feet.[19] The reservoir has a usable storage capacity of 32,031 acre-feet under the current operating range of 1,475 to 1,490 feet NVGD.

4. Description of Conveyance System

Water is released from the Project directly downstream into the West Fork of the Montreal River. There is no water conveyance system.

5. Description of Powerhouse

There is no powerhouse or generating equipment associated with the Project.

6. Tailwater

The tailwater downstream of the dam has a maximum depth of six feet, a maximum width of approximately 135 feet, and extends downstream from the concrete apron of the dam for approximately 60 feet.[20]

7. Transmission Equipment

The Project is a storage reservoir and there is no transmission equipment associated with the Project.

[14] Deck elevation is 1495.0 feet NGVD.
[15] From the bottom of the cutoff key to the top of the operator's deck as shown in Exhibit F.
[16] From the upstream face of the upstream wing wall to the downstream face of the downstream wing wall.
[17] The acreage was calculated using the most-current LiDAR information.
[18] Maximum depth from WDNR Find a Lake webpage (WI Department of Natural Resources, n.d.).
[19] 32,713 acre-feet of volume divided by 3,454 acres of area.
[20] Length and width of tailwater measured via Google Earth.

8. Appurtenant Equipment

Appurtenant facilities at the Project include, but are not limited to, gate hoists and monitoring equipment.

9. Project Operation

The Project reservoir is operated between a minimum elevation and maximum elevation of 1,475 and 1,490 feet NGVD, respectively. A minimum flow of 10 cfs is released year-round. NSPW conserves water at the Project by regulating releases from the Gile Dam such that the water released, when combined with the flow in the main branch of the Montreal River, allows the downstream hydroelectric projects to operate efficiently without passing additional water (i.e., flows in excess of the hydraulic capacity of the powerhouses) over the spillway or through the radial gates.

When the volume of water released from the Gile Dam, when combined with the flow in the main branch of the Montreal River, exceeds the maximum hydraulic capacities of Saxon Falls and Superior Falls powerhouses, this excess water must be passed via the spillways or through the radial gates and is considered “over releasing”. Over releases that do not serve a Project purpose can have an adverse impact upon recreational and environmental resources at the Gile Flowage. Therefore, NSPW avoids “over releasing” through closely regulating discharge from the Gile Dam.

Water stored at the Gile Flowage is reserved for project purposes.[21] NSPW will restrict the typical drawdown of the reservoir to approximately 0.1 feet per day, but no more than 0.2 feet per day, to balance the needs of generation with the needs of recreation and the aquatic environment.[22] To determine inflow into Gile Flowage, NSPW monitors changes in reservoir elevation with discharges from the dam according to gate opening and storage reservoir elevation curves. This information is used to determine inflows from stage storage curves and correlation tables. NSPW then calculates the amount of discharge necessary for the most efficient generation downstream and adjusts the flows accordingly.

The annual summer drawdown begins around May 1 and the annual winter drawdown typically begins around December 1 as shown in **Figure A-1**. A review of elevation data at the Gile Project from 1994 to 2016 showed that summer drawdowns ranged from 4.2 to 7.6 feet in years with normal precipitation, 4.7 feet to 10 feet during dry years and 1.6 feet to 7.4 feet during wet years. Winter drawdowns ranged from 4.6 feet to 8 feet during years with normal precipitation, 5.8 feet to 9.5 feet during dry years, and 2.8 feet to 9.4 feet during wet years. **Figures A-2** and **A-3** show the stage-storage curve and the stage-area curve for the Gile Flowage.

[21] Project purposes include power generation and environmental mitigation or enhancement measures proposed in Exhibit E.
[22] Except for scheduled whitewater releases and emergencies beyond NSPW’s control, which include but are not limited to preemptive reservoir drawdowns necessary for dam safety concerns or to accommodate major runoff events to reduce the risk of downstream flooding.

Figure A-1 Storage Reservoir Elevations for the Years 1994 to 2021

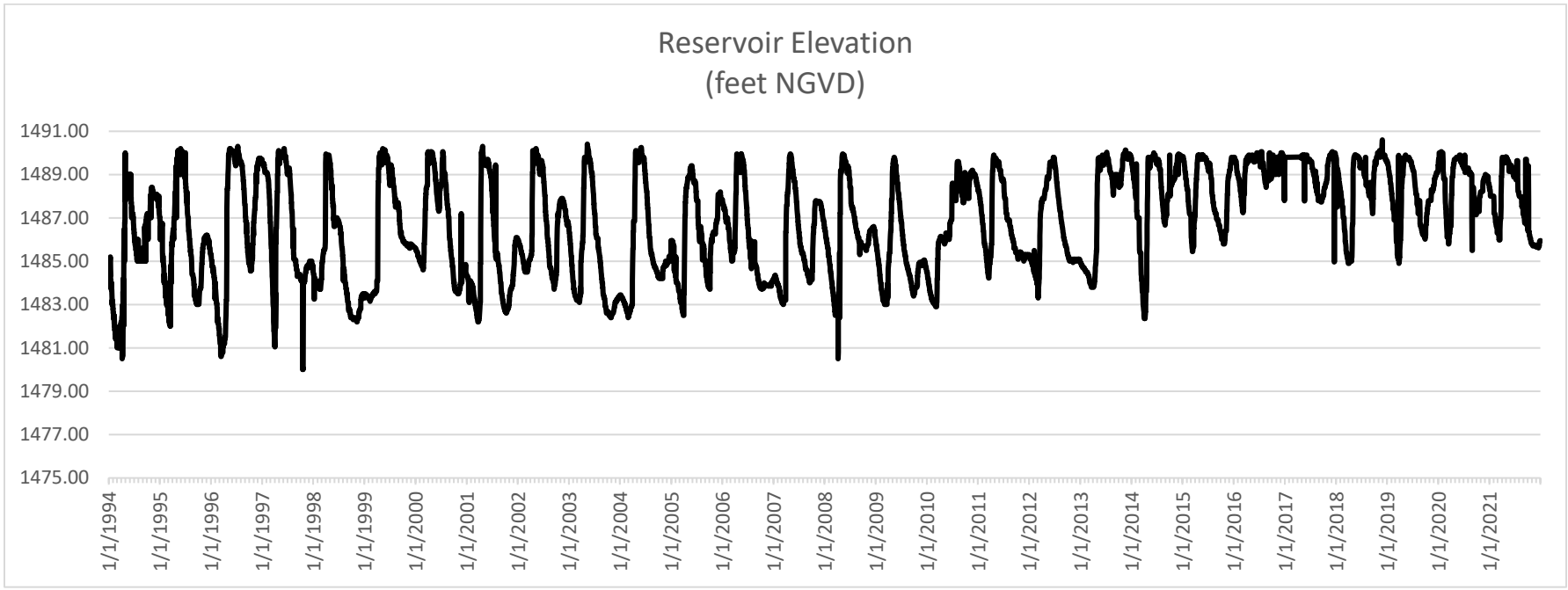


Figure A-2 Stage-Storage Curve for the Gile Flowage Storage Reservoir

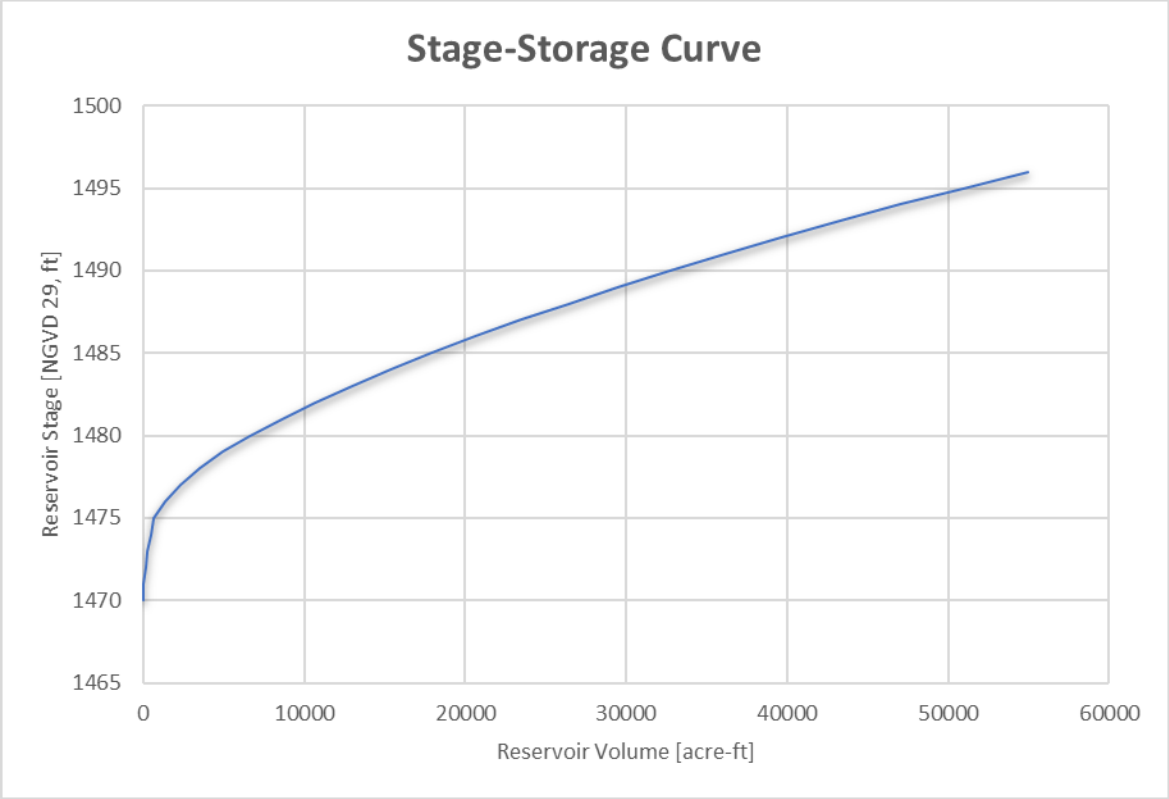
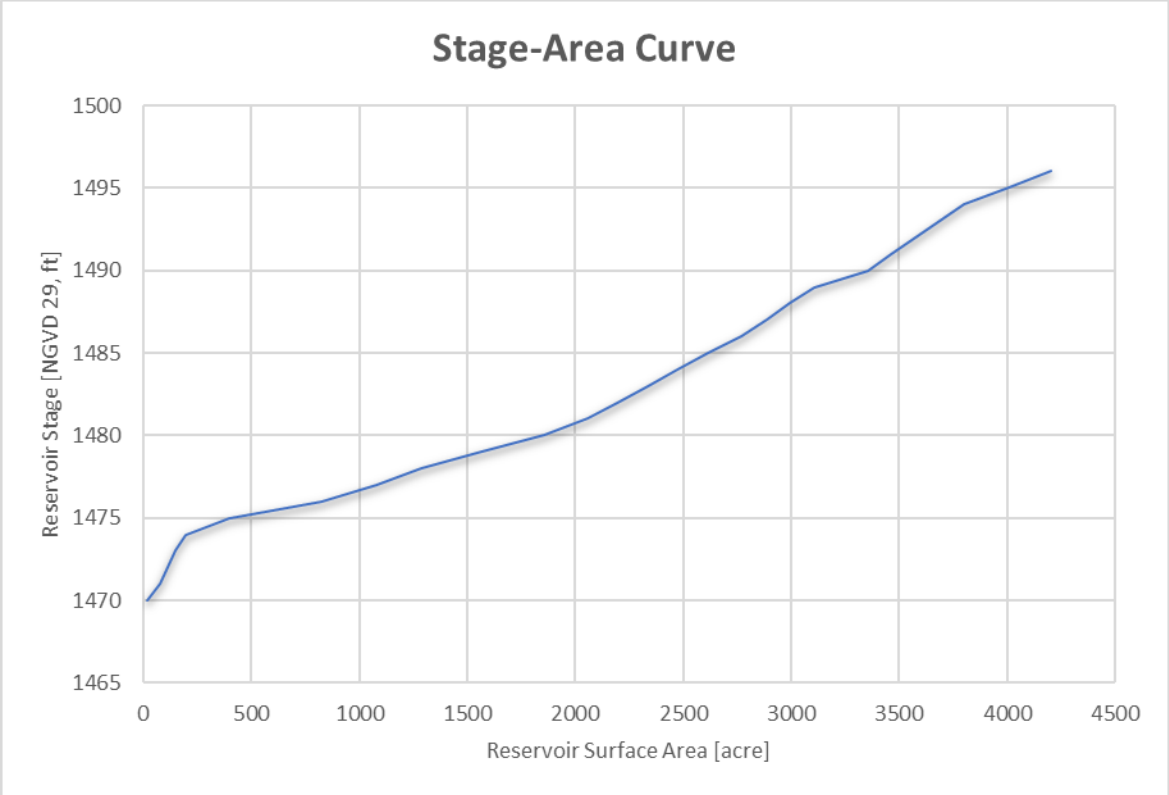


Figure A-3 Stage-Area Curve for the Gile Flowage Storage Reservoir



Two operators are assigned to oversee the daily operation and routine maintenance of the Project. An operator for the facility is available 24 hours per day, seven days per week. The Project is manually operated.

NSPW is not proposing any changes to Project operations.

10. Safe Management, Operation, and Maintenance

NSPW has a robust Owners Dam Safety Program that incorporates all inspection, monitoring, and reporting requirements for a dam with this hazard classification. It also ensures that adequate resources are allocated for the fulfillment of FERC dam safety requirements. The current Owners Dam Safety Program was revised and submitted to FERC on January 12, 2022.

NSPW developed a public safety plan (PSP) in 2022 and submitted it for FERC review and comment. The FERC determined that the PSP was satisfactory in their July 25, 2022 letter; however, it directed NSPW to evaluate the need for a boat restraining barrier, and if barrier is warranted, to submit a revised PSP to reflect the change. The PSP is reviewed on an annual basis to determine if any changes are necessary.

11. Average Annual Generation

A storage benefits report for the Gile Flowage was developed for NSPW in 2019 and e-Filed with the Commission on February 21, 2020.[23] The report concluded that the current operation of the Project provides a 21% increase in generation for the downstream Saxon Falls and Superior Falls hydroelectric projects. This calculates to 2,103.2 MWh for Saxon Falls and 2,401.6 MWh for Superior Falls for the five-year period ending in 2021.

12. River Flow Characteristics

As outlined in the Proposed Study Plan clarification letter dated July 14, 2021[24], NSPW utilized daily outflow and storage reservoir elevation data for the period 1994 to 2021 to calculate inflows to the Project and create flow duration curves. The drainage basin for the Project is 70 square miles. Based on streamflow data for the period of January 1994 to December 2021, the 10% exceedance flow at the Project was 10 cfs, the 50% exceedance flow was 58 cfs; and the 90% exceedance flow was 305 cfs.

Streamflow duration data shows the percentage of time a given flow is equaled or exceeded. Monthly flow duration curves and the annual exceedance table are based on data collected from January 1994 to December 2021 and are included in **Appendix A-3**.

13. Estimated Project Cost

The net book value (net investment) of the existing facility was calculated at ($180,918) and the gross book value was calculated at $361,771 as of December 31, 2022. These figures include land and land rights, structures and improvements, waterway improvements, accessories, and miscellaneous equipment.

[23] Accession No. 20200221-5033 (NSPW, 2020).
[24] Accession No. 20210715-5011. (NSPW, 2021b)

14. Estimated Costs of Proposed Environmental Measures

The additional estimated capital and estimated annual Operation and Management (O&M) costs for proposed environmental measures are outlined in **Table A-1**.

Table A-1 Estimated Capital and Annual O&M Costs for Proposed Environmental Measures[25] at the Gile Project

Item		Capital Cost	Annual O&M Cost
Maintain a minimum flow of 10 cfs into the West Fork for enhancement of downstream aquatic habitat.		$0	$0[26]
Restrict the typical daily drawdown of the reservoir to approximately 0.1 feet per day, but no more than 0.2 feet per day, to balance the needs of generation with the needs of recreation and the aquatic environment.		$0	$0[27]
Develop Aquatic and Terrestrial Species Plan and conduct biennial invasive species surveys.		$40,000	$35,000*
Complete shoreline erosion survey every 5 years.		$0	$15,000*
Develop Historic Resources Management Plan and revisit shoreline surveys every 5 years.		$20,000	$15,000*
Develop an Operations Monitoring Plan.		$25,000	$0
Comply with operations deviation reporting and consultation.		$0	$10,000
Provide flow release and storage reservoir elevation information via the internet.		$50,000	$1,000
Recreation Measures	Review and update or replace the Take-Out sign and Part 8 sign at the Canoe Portage site.	$5,000	$0
	Conduct routine maintenance of NSPW's FERC approved recreation site(s) (Canoe Portage Site), including signage, over the term of the license.	$0	$750
	Develop a Land Management Plan for islands owned in fee by NSPW.	$25,000	$30,000
	Develop Whitewater Recreation Plan that also includes the Saxon Falls Hydroelectric Project.	$15,000	$0
	Provide 2 releases annually for downstream whitewater boating.	$0	$1,000[28]
	Supplement water releases as needed from the Gile Dam for enhanced aesthetics at the Saxon Falls bypass reach.	$0	$0[29]
	Implement the Cave Bat BITP/A and Wood Turtle BITP/A for any routine vegetation maintenance activities at NSPW's FERC-approved recreation site.	$0	$2,000
Total Cost		**$180,000**	**$NA[30]**

*cost per survey event

[25] All costs are estimated in 2023 dollars.

[26] No cost is included for the minimum flow releases because the proposed operating range is expected to provide adequate storage reserves such that the downstream generation will not be adversely, impacted by the proposed environmental mitigation and enhancement measures.

[27] No cost is included for the typical daily drawdown of approximately 0.1 foot per day, but no more than 0.2 feet per day, restriction because the proposed operating range is expected to provide adequate storage reserves such that the downstream generation will not be adversely impacted by the proposed environmental mitigation and enhancement measures.

[28] The annual cost for whitewater flow releases is $1,000 for the operators to be dispatched on a weekend to adjust the flows. The lost generation for it does not include any cost for lost generation due to lost storage because the proposed operating range is expected to provide adequate storage reserves such that the downstream generation will not be adversely impacted by the proposed environmental mitigation and enhancement measures.

[29] No cost is included for the additional aesthetic flows that could result in lost generation downstream because the proposed operating range is expected to provide adequate storage reserves such that the downstream generation will not be adversely impacted by the proposed environmental mitigation and enhancement measures.

[30] The total O&M Costs are not listed here because not all the costs are incurred annually.

15. Purpose of the Project

The purpose of the Project is to provide headwater storage for seasonally uniform hydroelectric generation at NSPW's downstream Saxon Falls (FERC Project No. 2610) and Superior Falls (FERC Project No. 2587) hydroelectric projects.

16. License Application Development Costs

The costs for NSPW to relicense under the Integrated Licensing Process through the filing of the Final License Application (FLA) is $689,786.

17. Estimated Value of On-Peak Power and Off-Peak Power

Although the project operates as a storage reservoir, and has no generating facilities, it does provide downstream benefits to the Saxon Falls and Superior Falls hydroelectric projects. Based upon an average energy value of $27.32 per MWh, the average annual gross revenue from 2017 to 2021 was $273,618 for the Saxon Falls Project and $312,442 for the Superior Falls Project with $123,073 (21%) attributed to the operation of the Gile Project.[31]

18. Average Annual Increase or Decrease in Project Generation and Value of Power Due to Changes in Project Operations

NSPW is not proposing any changes that will affect power generation at the two downstream hydroelectric projects. The proposed operating range is expected to provide adequate storage reserves such that the downstream generation will not be adversely impacted by the proposed environmental mitigation and enhancement measures.

19. Remaining Undepreciated Net Investment, or Book Value of the Project

The undepreciated net investment of the Project as of December 31, 2022 was ($180,918).[32]

20. Annual Operation and Maintenance Costs

The average annual cost to operate and maintain the Gile Project for the period 2018-2022 is estimated to be $282,967 per year. These costs are outlined in **Table A-2** and include general O&M expenses, insurance, taxes, and depreciation. A breakdown of the individual components of the general O&M expense category is shown in **Table A-3**.

[31] Calculated from replacement power value and the average annual generation figure from the FLA for the Saxon Falls and Superior Falls Hydroelectric Project Exhibit A and H, Accession No. 20221230-5395.
[32] Undepreciated net investment was calculated by subtracting the accumulated depreciation from the book cost. Accumulated depreciation was determined by combining the Life Reserve depreciation and COR Reserve depreciation. Life Reserve depreciation is the recovery of book cost and the COR Reserve depreciation is a supplemental recovery/reduction based off the authorized salvage percentage and related dismantling study.

Table A-2 Annual Operation and Management Costs

Item	Cost
General O&M Expenses (5-year average)	$39,424
Insurance[33]	N/A
2022 Property Taxes	$2,582
2022 Depreciation	$240,961
Average Annual O&M Cost	**$282,967**

Table A-3 Cost Breakdown of General O&M Expense Category[34] (2018 to 2022)

Cost	2018	2019	2020	2021	2022	2018-2022 Mean
Employee Expenses	$517	$675	$574	$2,744	$0	$1,128
Labor	$22,798	$17,862	$18,966	$26,097	$16,513	$20,447
Materials & Commodities	$737	$3,142	$4,137	$2,985	$0	$2,750
Miscellaneous	$2,144	$0	$0	$0	$0	$2,144
Outside Services	$6,599	$25,354	$28,152	$5,028	$12,093	$15,445
Total General O&M Costs	$32,796	$47,034	$51,829	$36,854	$28,606	$39,424

21. One-Line Diagram of Electric Circuits

The Project has no generating facilities or electric circuits associated with it, therefore, there is no one-line diagram.

22. Lands of the United States

There are no federally owned lands within the Project boundary.

23. Public Utilities Regulatory Policy Act

The Licensee reserves any future rights it may have under the Public Utility Regulatory Policies Act (PURPA) as it pertains to the Project.

24. Supporting Design Report

The supporting design report is considered Critical Energy Infrastructure Information and will be filed as such as a separate document, concurrent with the filing of the FLA.

[33] NSPW pays a lump sum for insurance costs per operating company (i.e., NSPW, NSPM), therefore there are not insurance costs specific to the Gile Project.
[34] Includes administrative costs.

25. Works Cited

Ayres Associates. (2016). *2016 Consultant Safety Inspection Report for the Gile Reservoir Dam-WDNR Field File No 26.09.*

GAI Consultants. (2022). *Aquatic and Terrestrial Insvasive Species Report.* September, 2022.

NSPW. (2019). *Revisions to Owners Dam Safety Program under P-2056, et. al., FERC Accession No. 20190628-5110.* June 28, 2019.

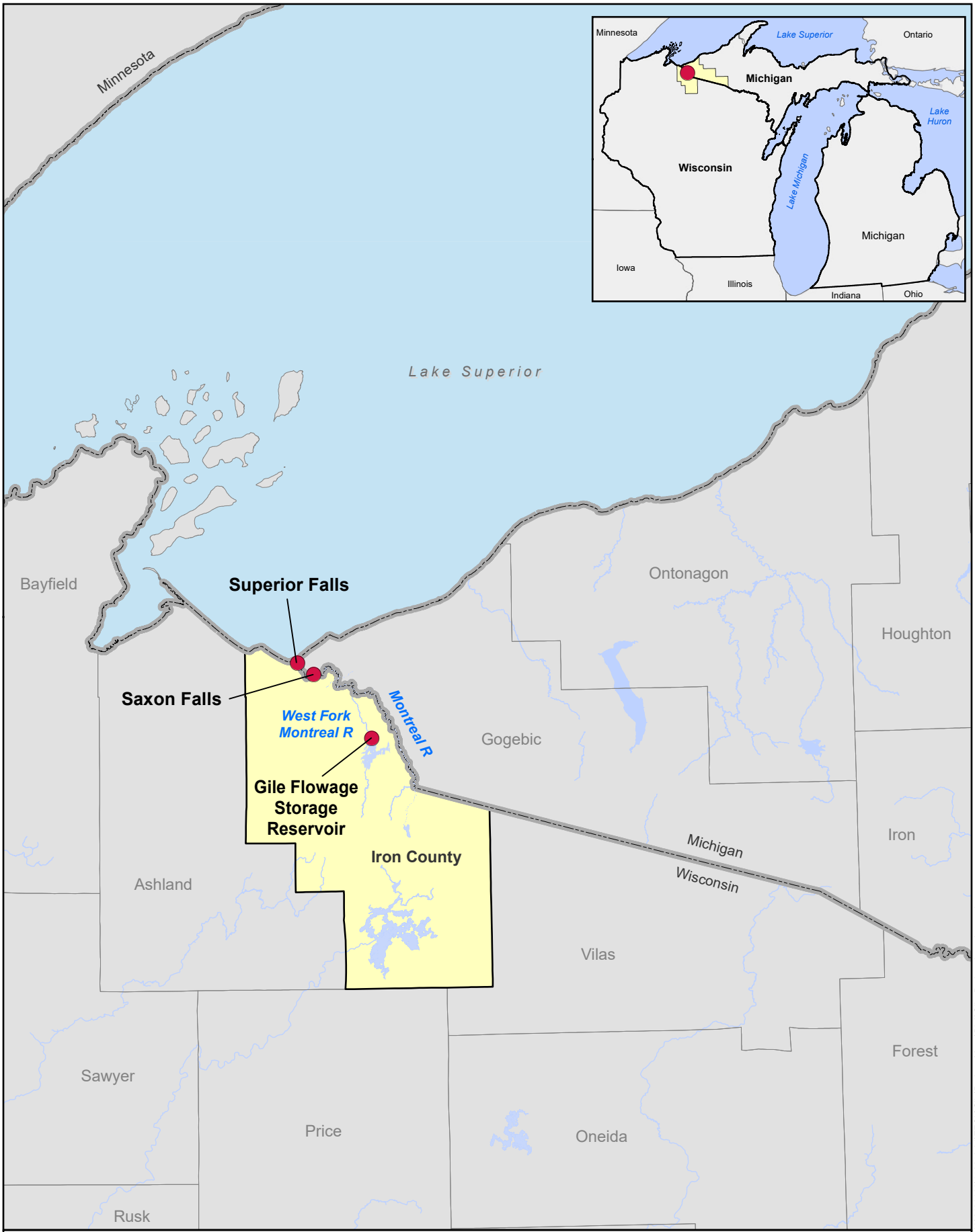
NSPW. (2020). *Response to Additional Information Request Regarding Reservoir Storage Benefits, Gile Flowage (UL20-1), FERC Accession No. 20200220-5032.* February 21, 2020.

NSPW. (2021a). *Proposed Study Plan Clarifications, FERC Accession No. 20210503-5256.* May 3, 2021.

NSPW. (2021b). *PSP Clarification Letter, FERC Accession No. 20210715-5011.* July 15, 2021.

WI Department of Natural Resources. (n.d.). *Gile Flowage*. Retrieved March 4, 2023, from WDNR Find a Lake: https://dnr.wi.gov/lakes/lakepages/LakeDetail.aspx?wbic=2942300

APPENDIX A-1 Gile Flowage Storage Reservoir Project Location



Project Location
State Boundary
County Boundary
Waterbody
River/Stream

N

0 10 20 Miles

Gile Flowage Storage Reservoir Project Location

FERC No. 15055

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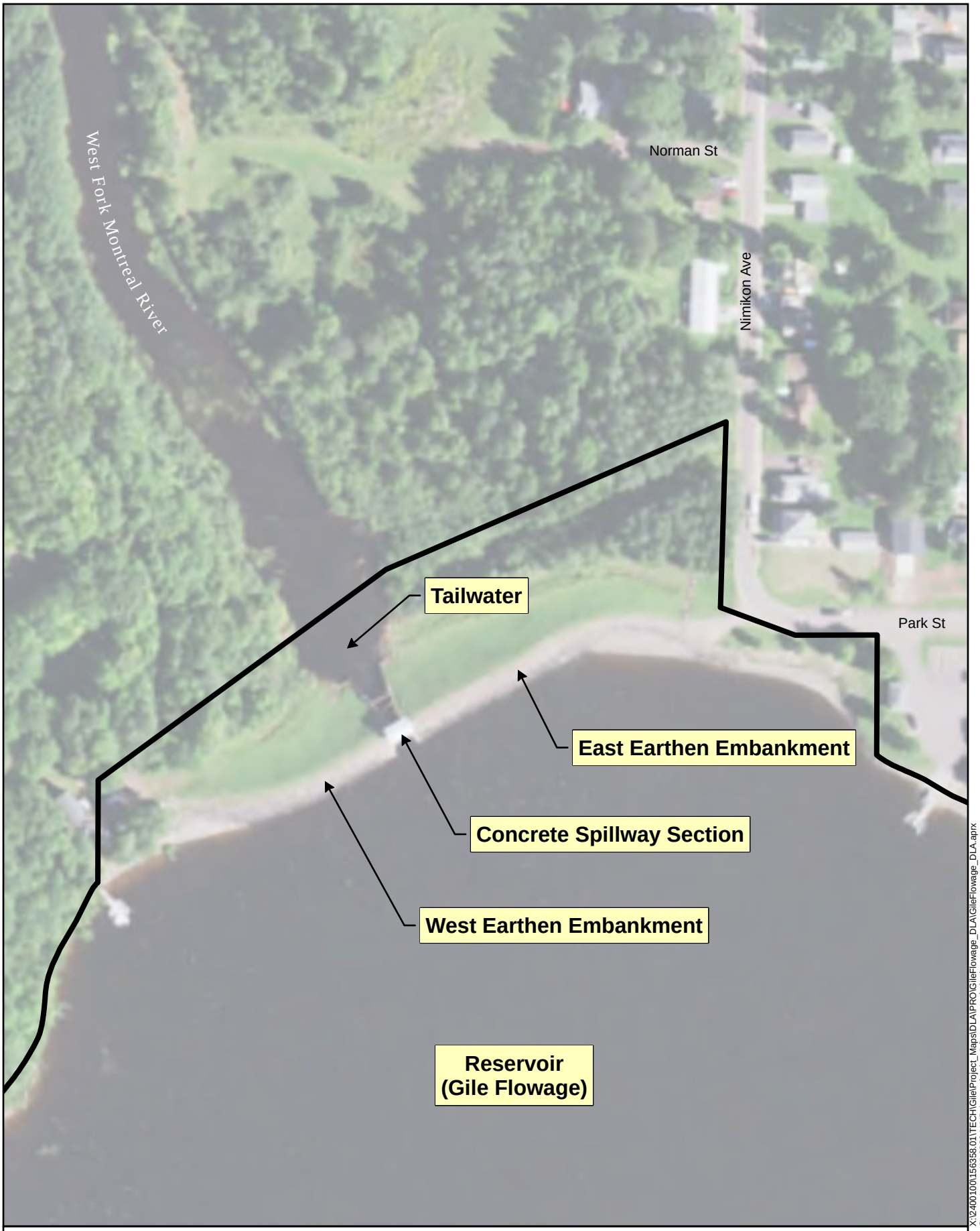
Source Layer: ESRI; Iron County, WI; Wisconsin DNR; Michigan GIS Open Data

APPENDIX A-2 Gile Flowage Storage Reservoir Project Facilities



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Source Layer: WI 2020 NAIP (natural color, 1.0 meter-resolution)

Xcel Energy®

Mead & Hunt

Proposed Project Boundary

0 100 200

Feet

Gile Flowage Storage Reservoir
Project Facilities

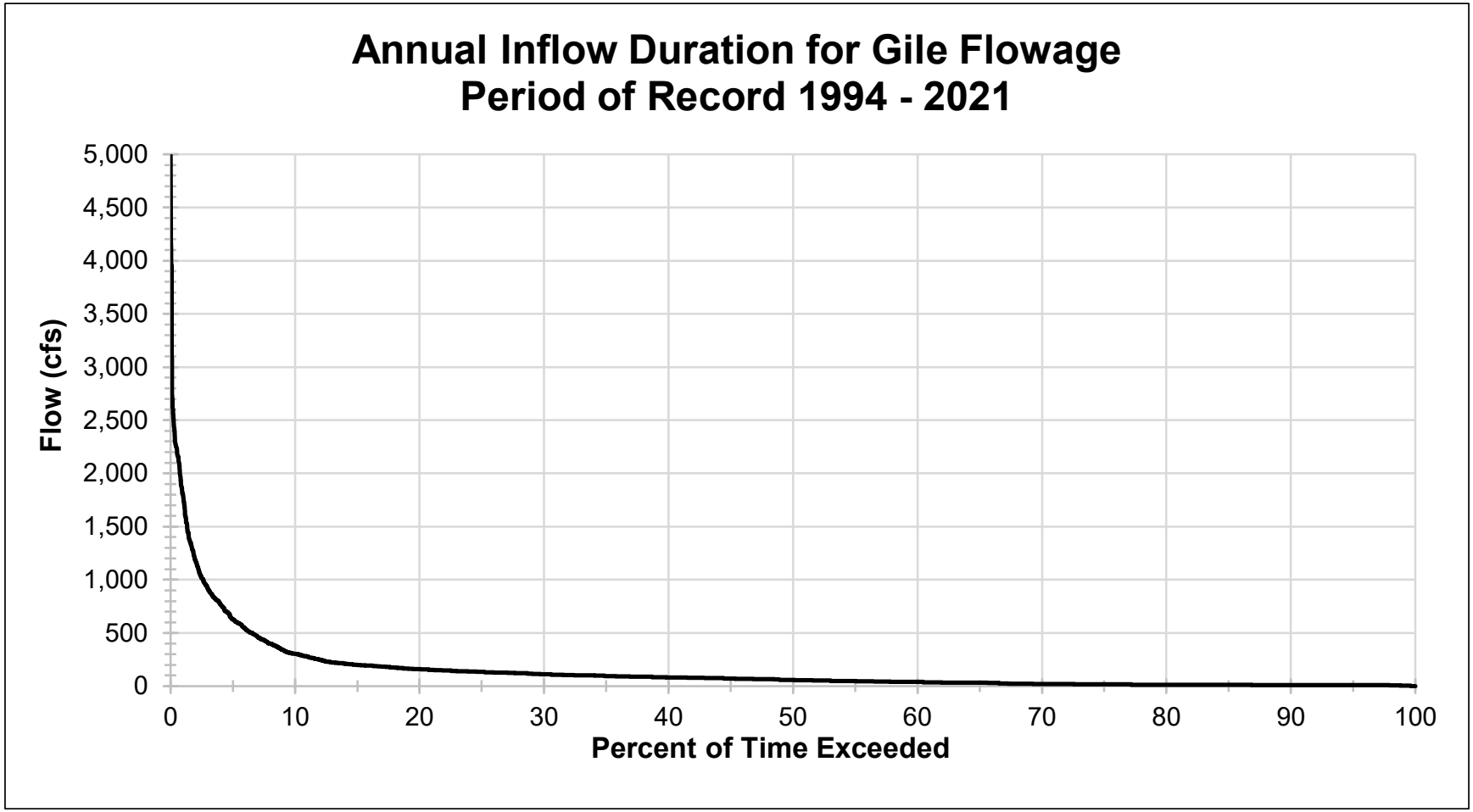
FERC No. 15055

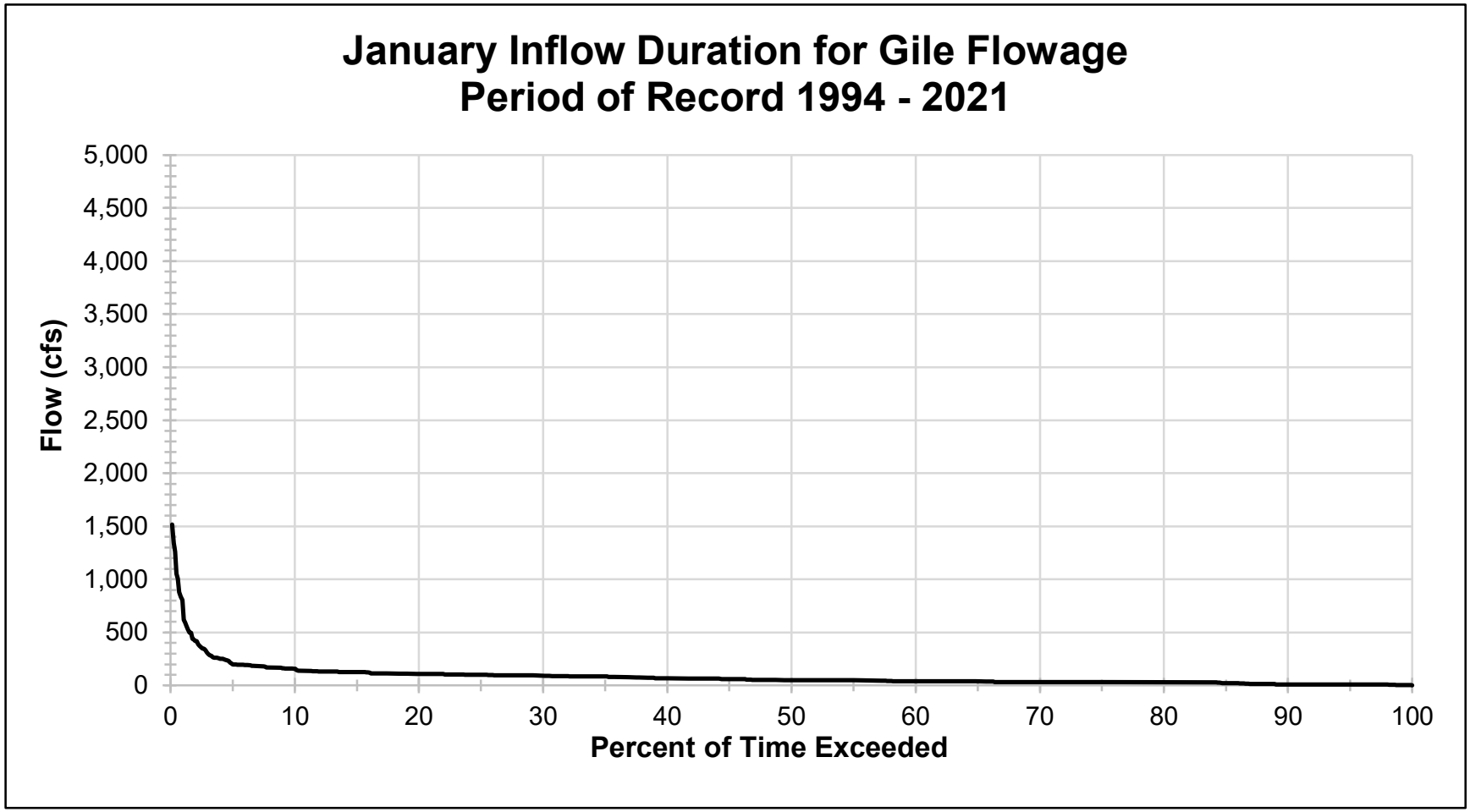
Note: the impounded Proposed Project Boundary is established at elevation 1490.0 feet NGVD.

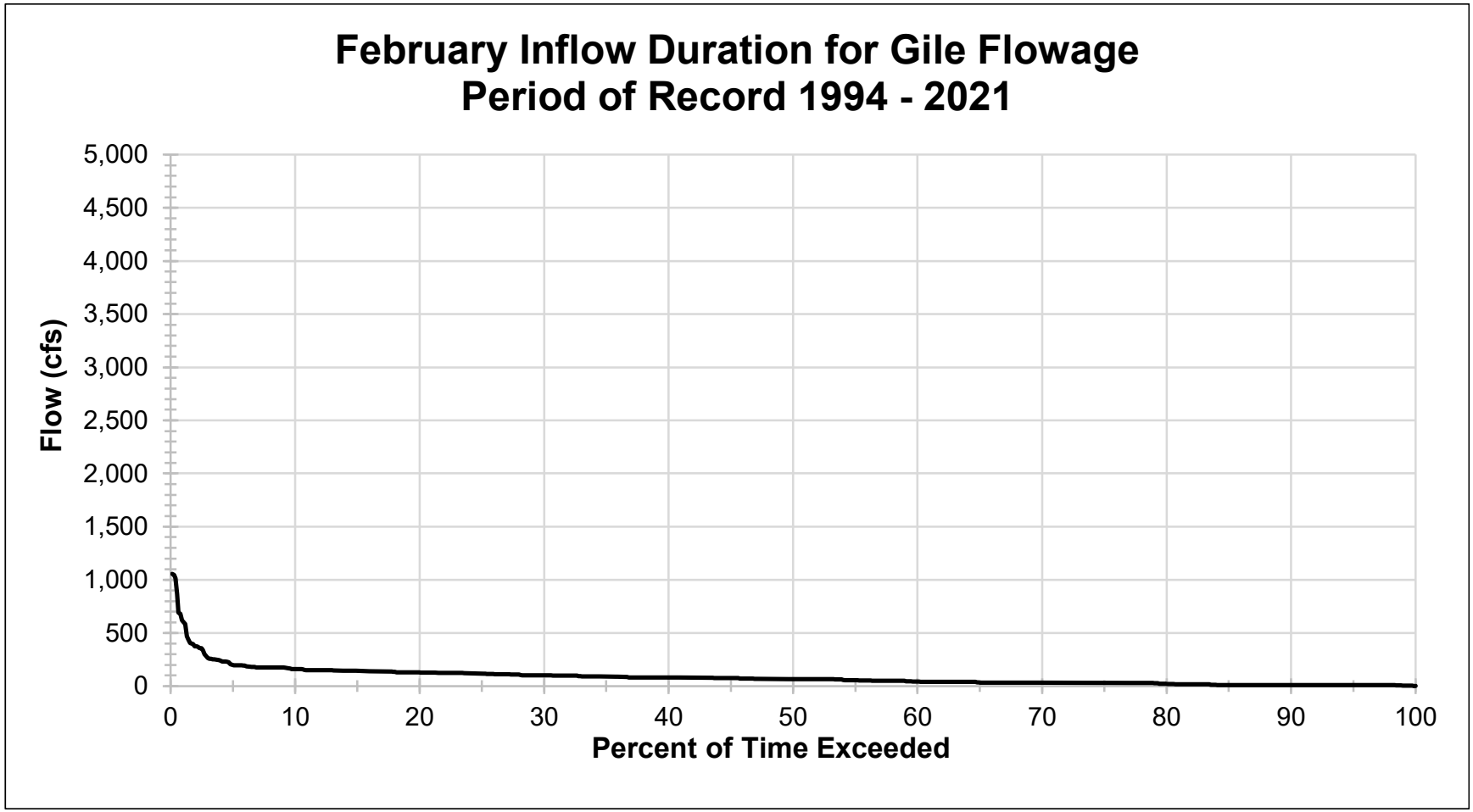
APPENDIX A-3 Gile Flowage Storage Reservoir Flow Duration Curves

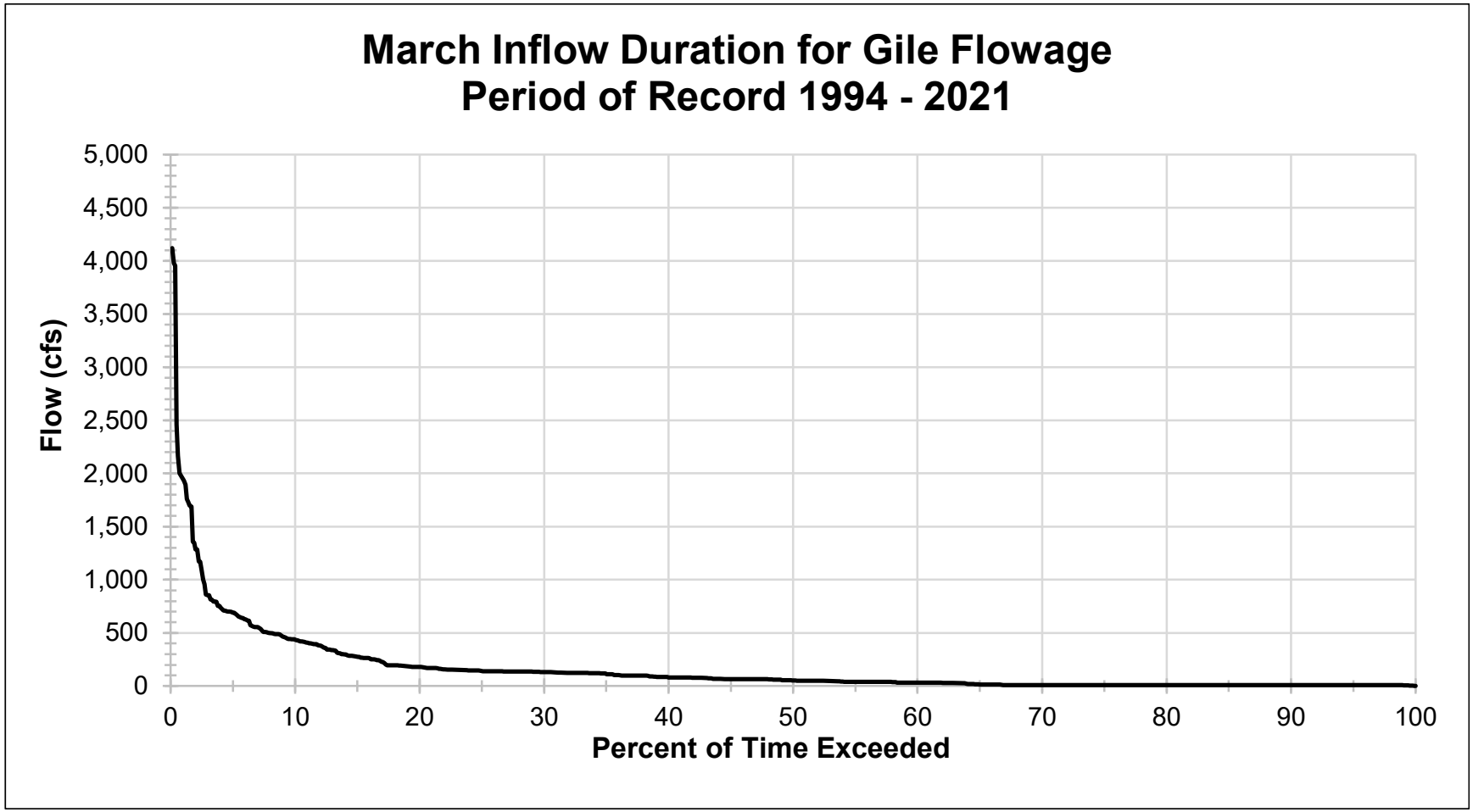
Inflow Duration for Gile Flowage (Period of Record 1994 - 2021)

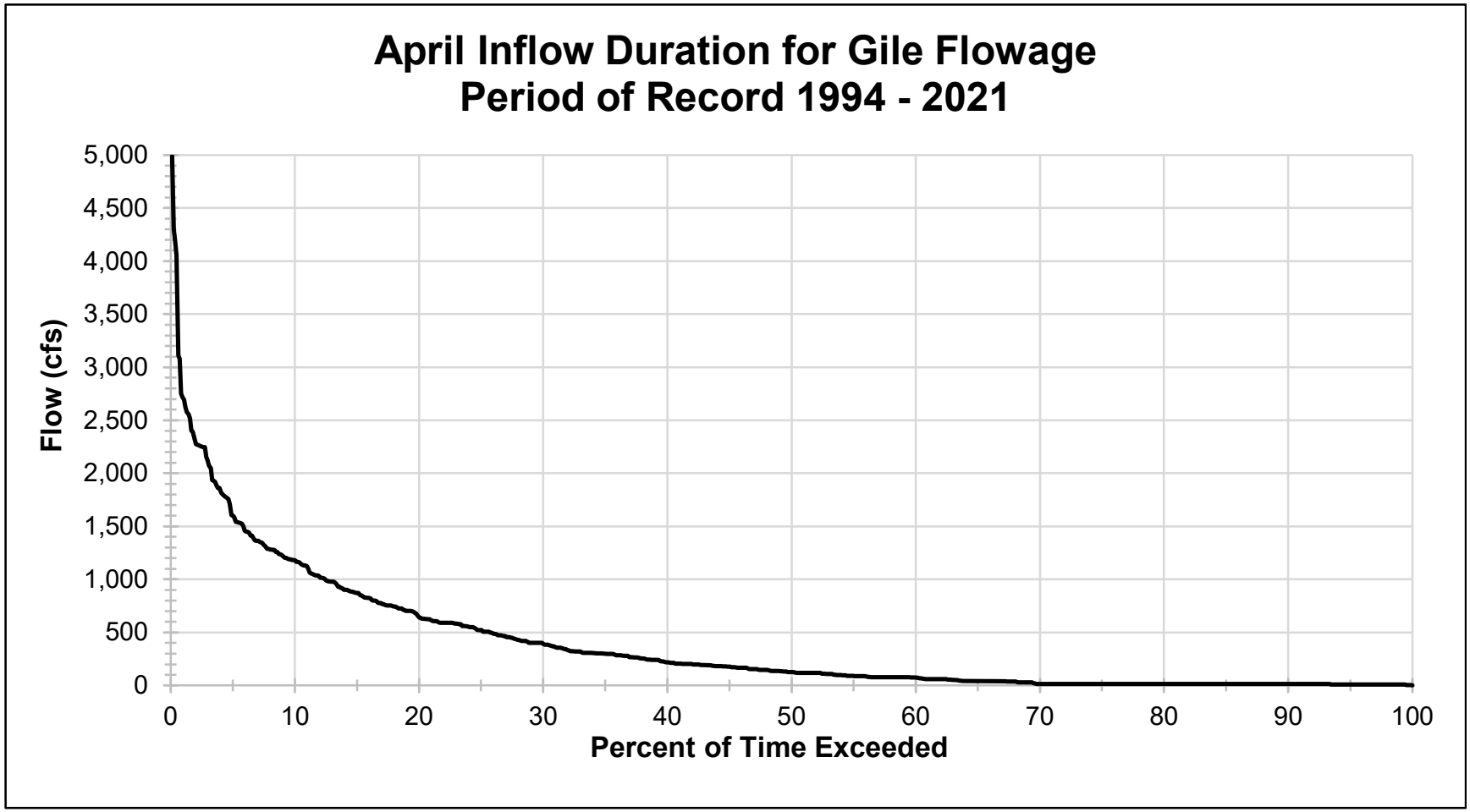
Percent of Time	January	February	March	April	May	June	July	August	September	October	November	December	Annual
95	10	10	10	11	16	16	15	14	14	12	10	10	10
90	11	10	10	11	17	20	21	18	15	12	10	10	10
85	22	11	10	12	19	23	24	18	15	12	10	10	12
80	32	21	10	12	34	23	39	19	15	12	10	11	12
75	32	32	10	12	45	32	45	20	16	12	10	11	16
70	33	32	10	14	62	48	47	21	17	12	10	12	20
65	38	34	12	42	67	66	57	39	18	12	11	23	32
60	40	43	32	76	84	84	70	42	18	12	11	33	38
55	48	55	40	91	99	88	78	46	30	13	11	40	48
50	50	65	51	126	102	101	82	57	35	13	12	50	58
45	60	75	65	177	122	103	90	64	37	14	12	58	71
40	67	82	83	218	148	119	106	74	40	14	36	67	83
35	85	90	116	302	165	126	125	76	53	27	51	74	95
30	93	102	131	401	188	140	141	92	79	54	58	83	110
25	100	122	142	522	229	155	156	104	90	80	81	89	133
20	107	129	179	654	327	164	182	119	128	111	124	98	159
15	128	142	278	874	511	192	205	154	163	147	150	110	200
10	157	161	439	1,182	807	271	223	194	210	226	228	146	305

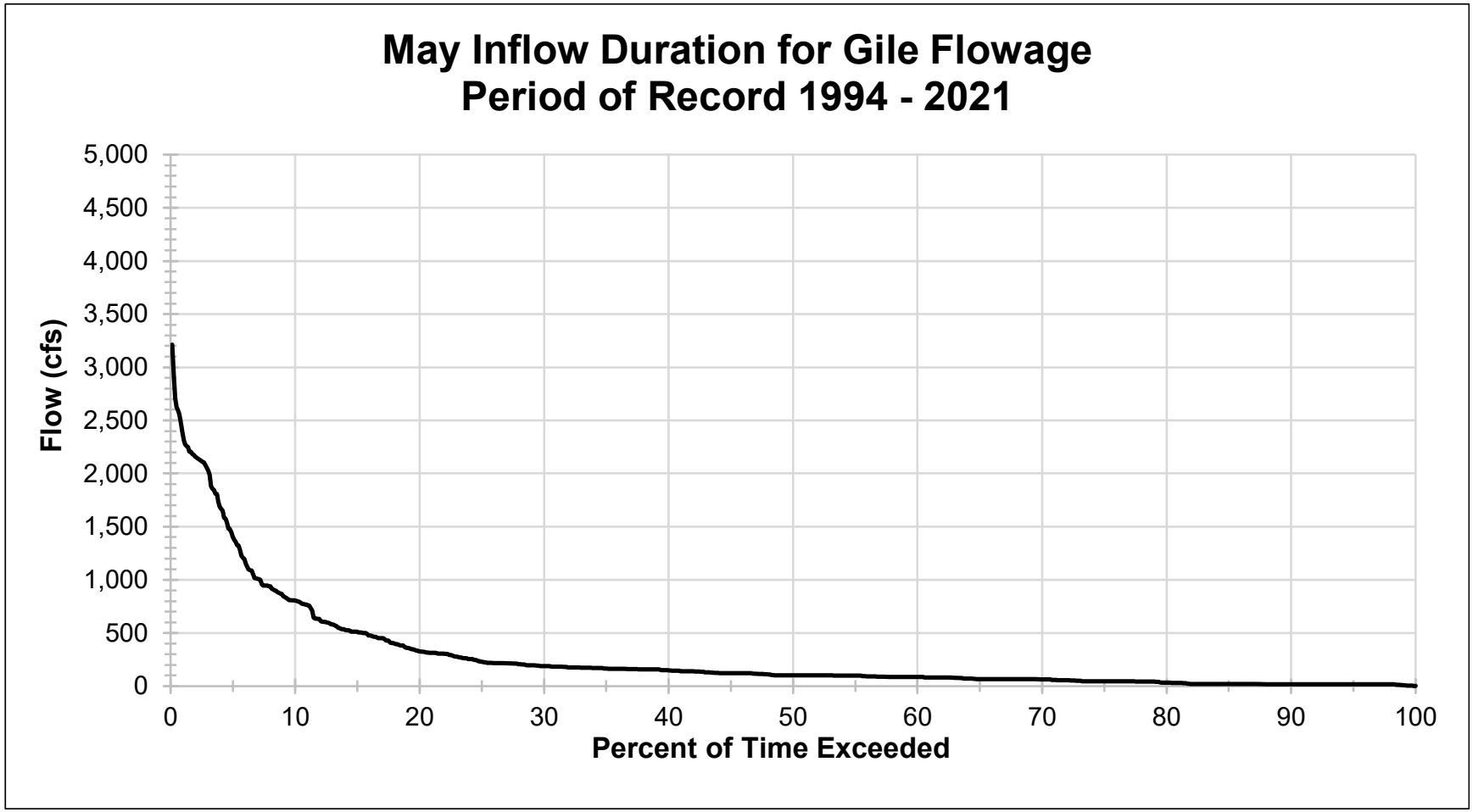

Annual Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded

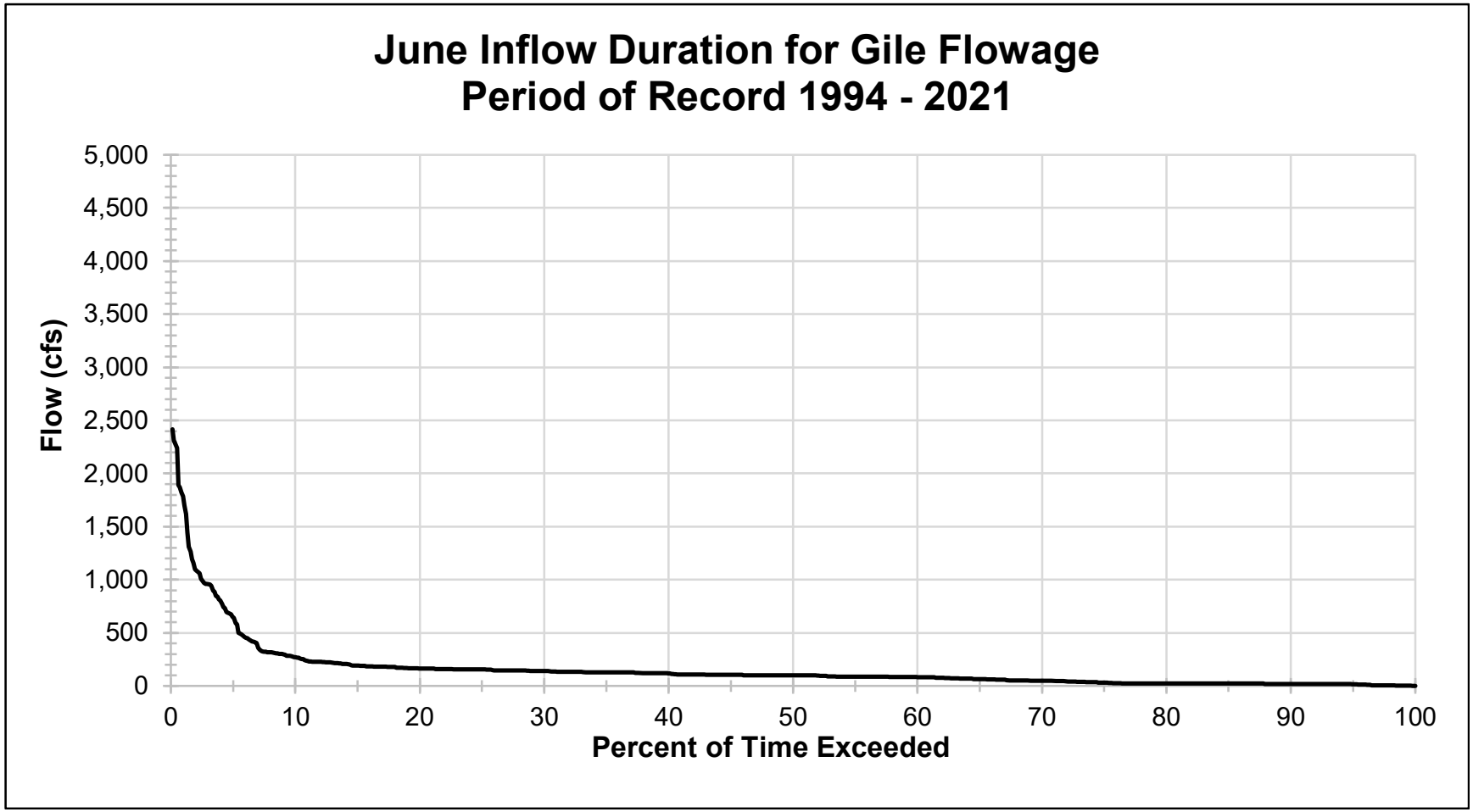

January Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded

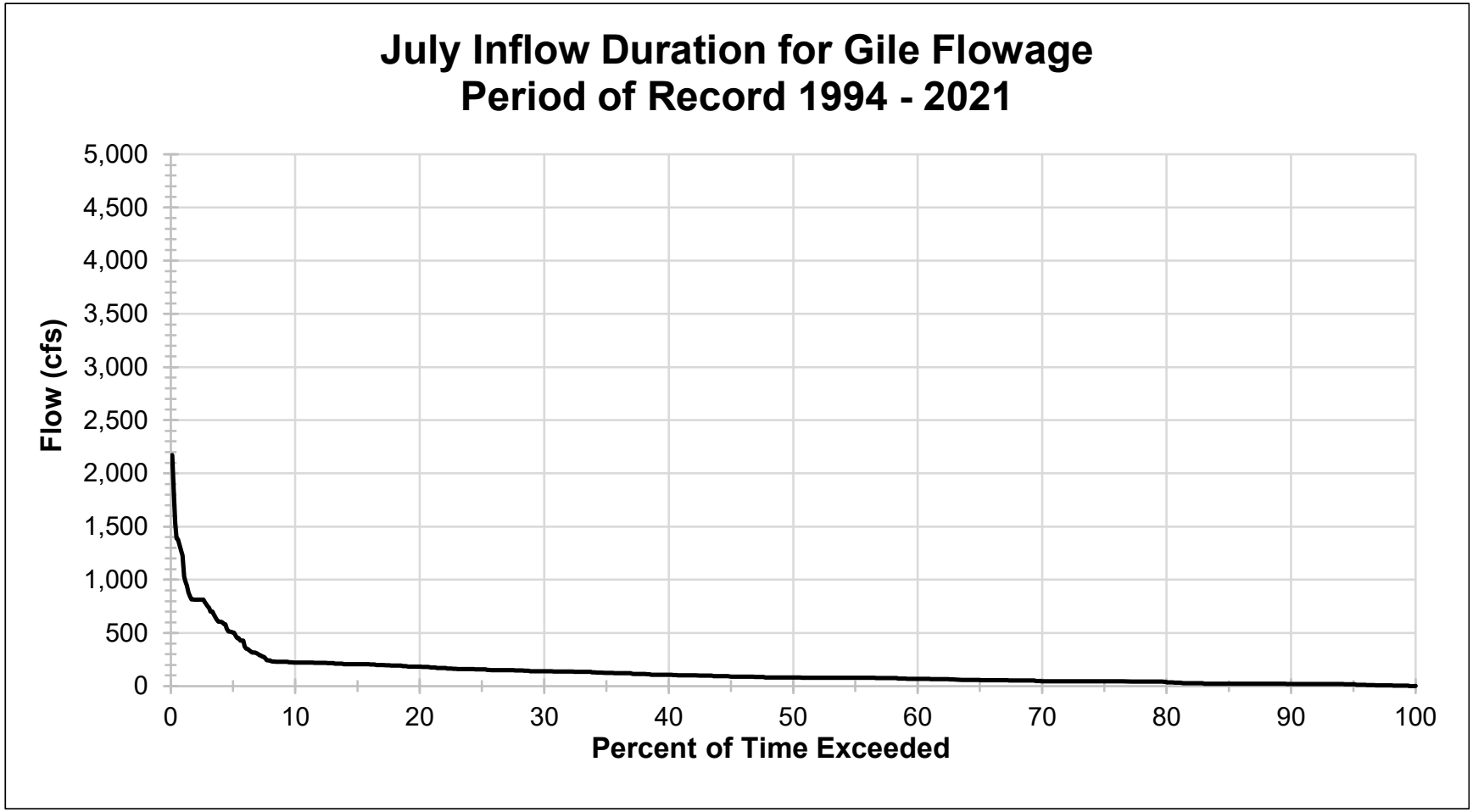

February Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded

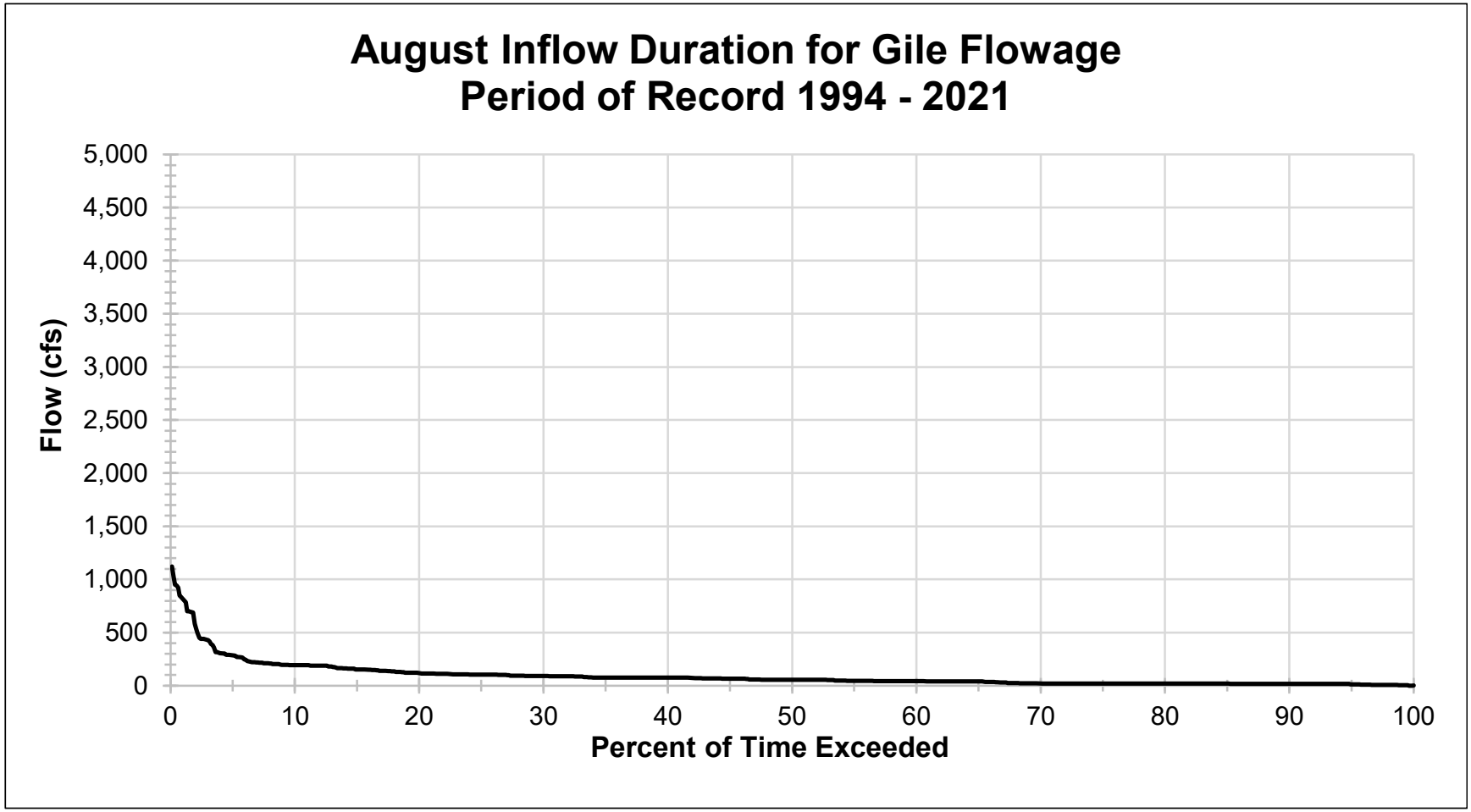

March Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded

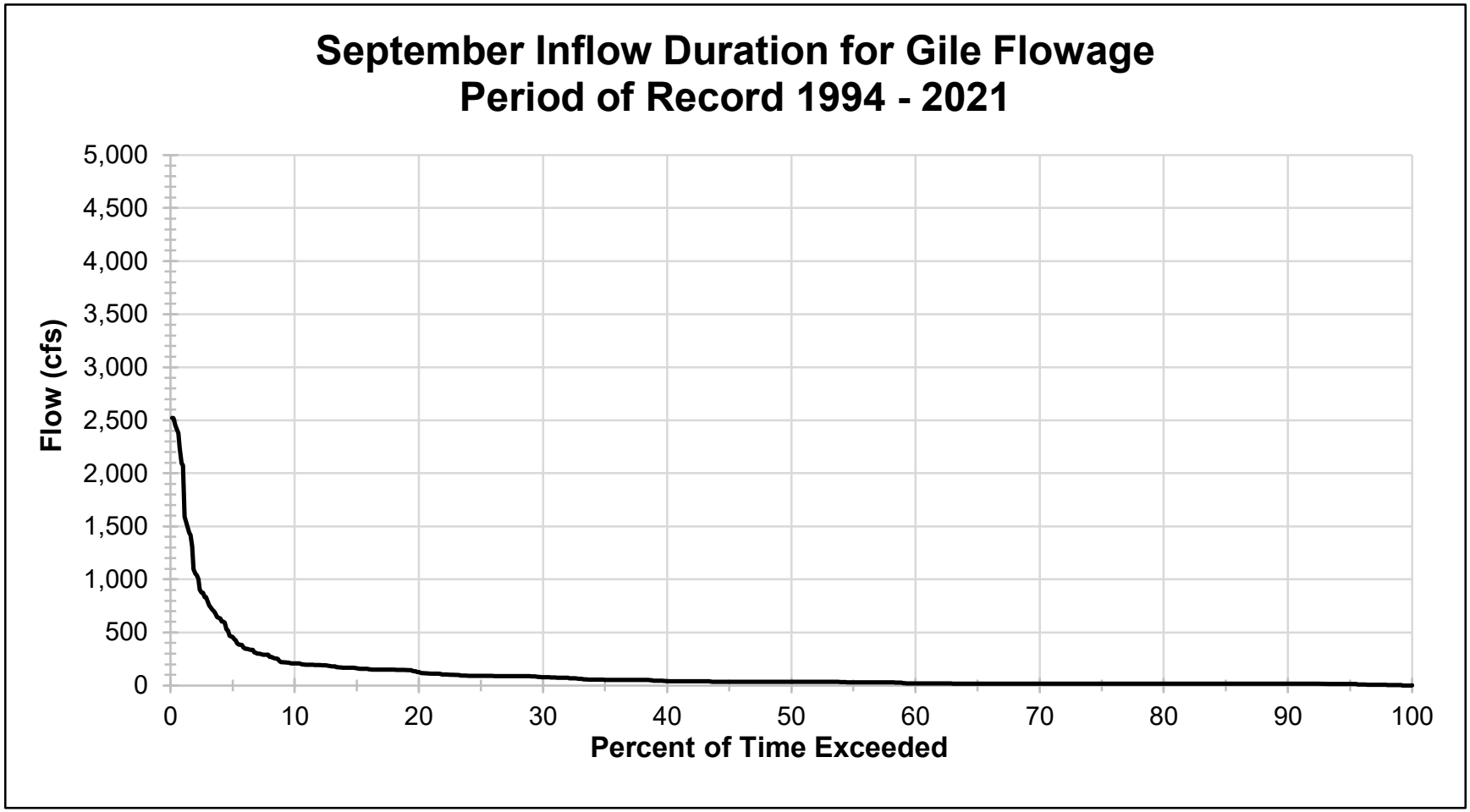

April Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded

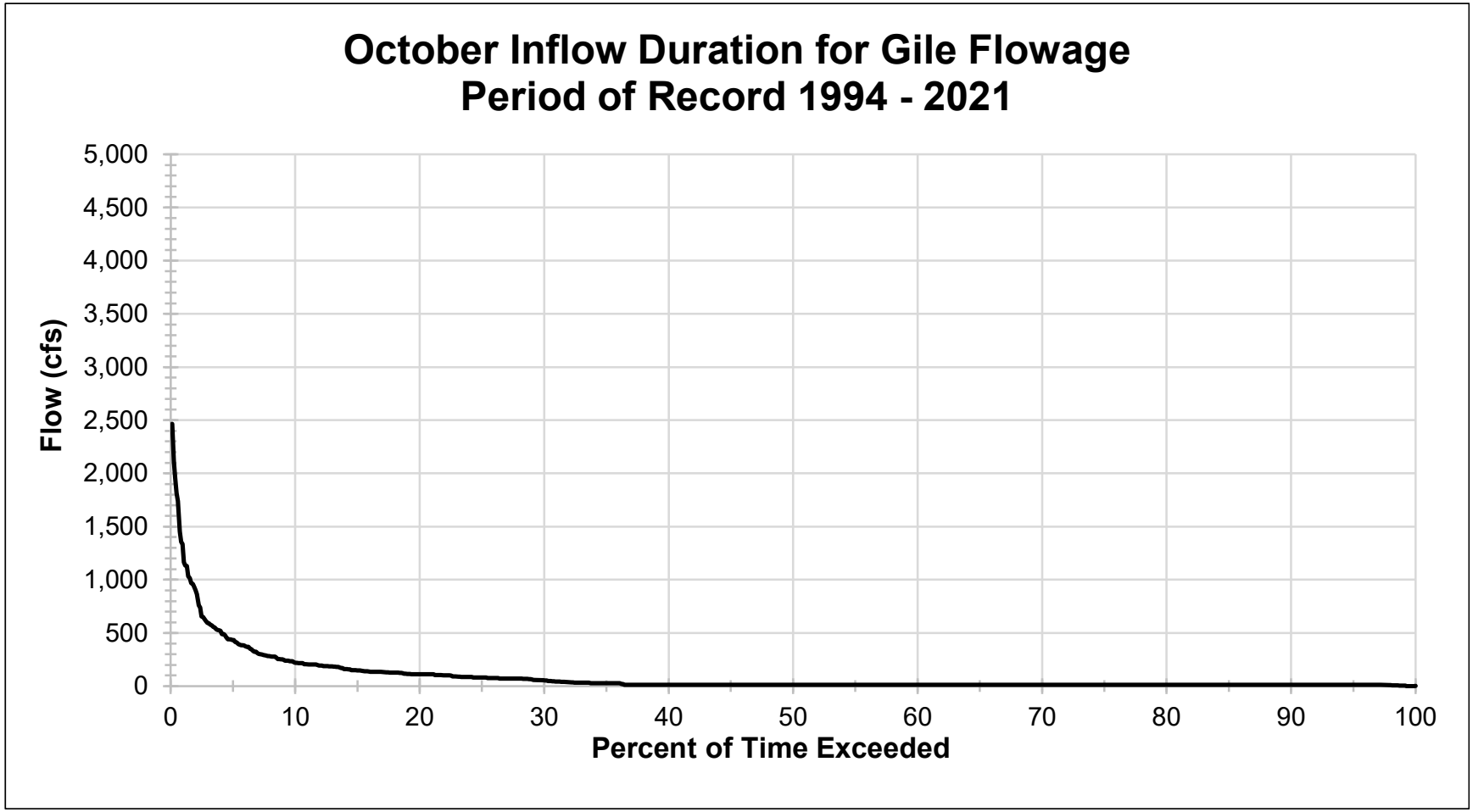

May Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded

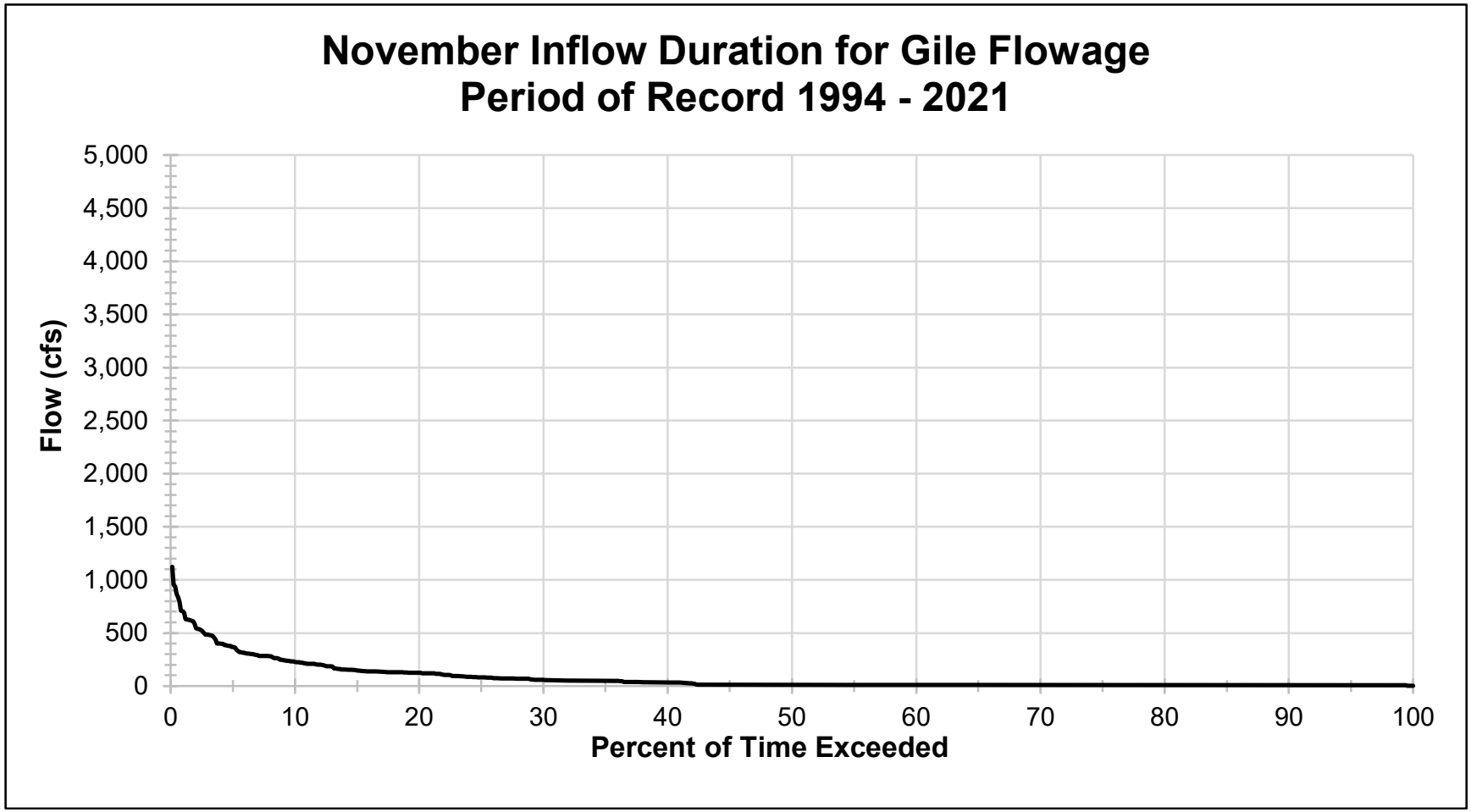

June Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded

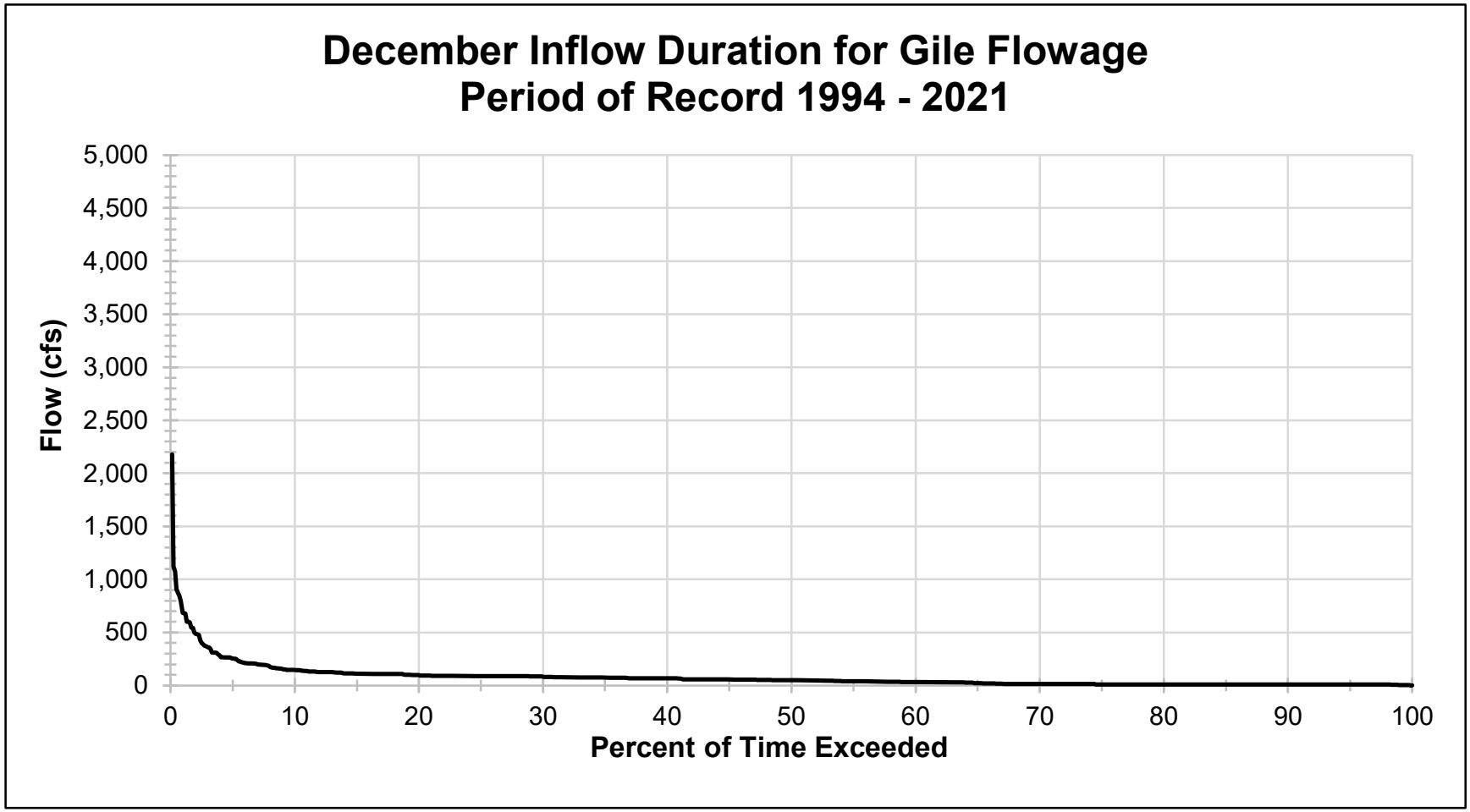

July Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded


August Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded


September Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded


October Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded


November Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded


December Inflow Duration for Gile Flowage
Period of Record 1994 - 2021
Flow (cfs)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
10
20
30
40
50
60
70
80
90
100
Percent of Time Exceeded