EXHIBIT B

PROJECT OPERATION AND RESOURCE UTILIZATION

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1. PROJECT OPERATION OVERVIEW

The Norway and Oakdale Hydroelectric Projects are owned and operated by Northern Indiana Public Service Company (NIPSCO) and are located on the Tippecanoe River near Monticello, Indiana. The Project consists of two hydroelectric facilities, each having a dam, water supply reservoir, and hydroelectric power plant. The dams are separated by a distance of about 12 river miles. Norway Dam is located about one mile north of the City of Monticello and impounds Lake Shafer. Oakdale Dam is located about seven miles south of Monticello and impounds Lake Freeman. Both reservoirs have limited water storage capability.

2. NORWAY FACILITY

2.1 PLANT OPERATION

2.1.1 Type of Operation

The Norway Facility is operated essentially in a run-of-river mode. It is automated and can be either manually controlled locally, from within the powerhouse, operated remotely from NIPSCO's Southlake Complex located in Merrillville, Indiana, or operated remotely via laptop computer.

During normal operations, the lake level at the powerhouse is maintained within plus or minus 0.60 ft. of El. 645.50/647.82 ft. for operation of the plant. The lake level at the powerhouse is normally maintained within plus or minus 0.25 ft. of El. 645.15/647.47 ft. for operation of the plant from June 1 to September 30. Operation to maintain lake level may be modified in response to electrical generation system emergency conditions or other conditions affecting safe operation of the facilities, including major maintenance of the dam and or powerhouse (which will be scheduled during October 1 through May 31, if practicable to avoid conflict with the heavy recreational use of the lakes). Hydrologic conditions beyond the operators' control also may result in lake levels outside the normal operating range. Release of water from the lakes will be made according to the following order of operations, which is dependent on the magnitude of the flow to be passed by the structures:

1. Water will be passed through the turbine/generator units until all units are operating at full gate (i.e. maximum discharge).

2. Spillway gates are opened incrementally to pass flows in excess of the turbine/generators' maximum discharge until all gates are open about 7.5 feet.

3. Spillway gates (all of which should be open about 7.5 feet at this point) are opened incrementally to pass excess flow until all gates are open about 12.5 feet.

4. Spillway gates are fully opened.

2.1.2 Operation During Adverse, Mean, and High Water Years

Daily operation of the reservoir generally matches the flow pattern into Lake Shafer, with outflows from the dam generally equaling inflows over a 24-hour period. Figures B-1 through B-6 depict the daily reservoir elevations and discharges for calendar years 2000, 2001, and 2002.

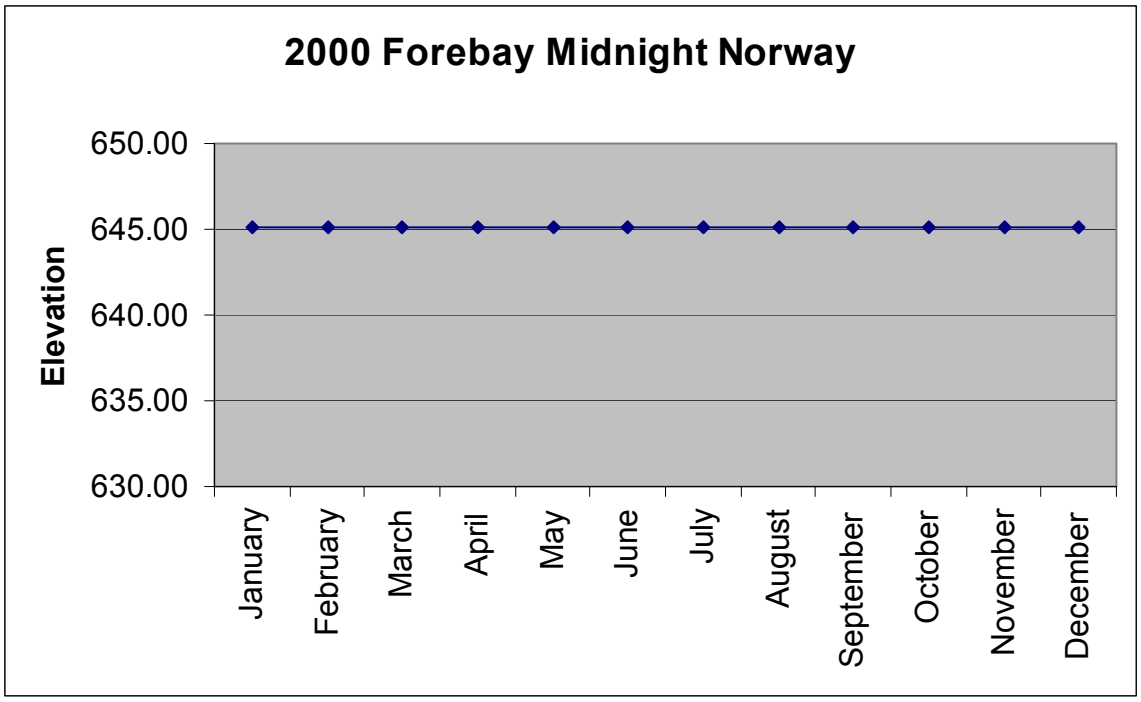

Figure B-1. 2000 Lake Shafer (Norway) Reservoir Elevation.

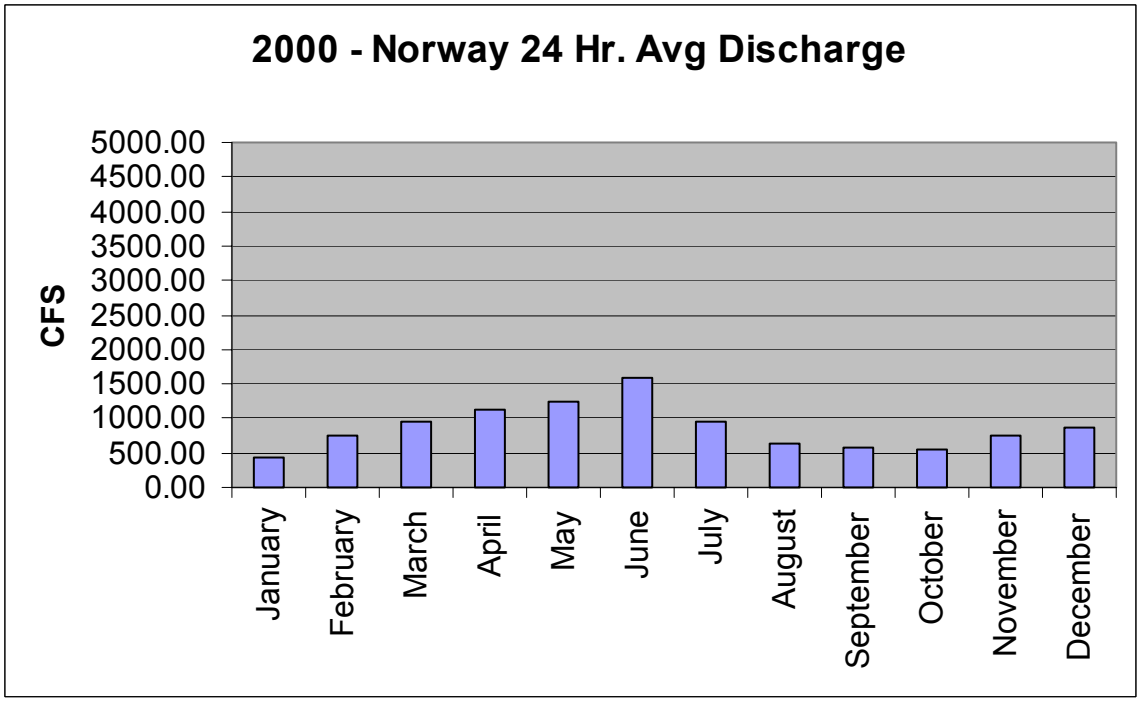

Figure B-2. 2000 Norway Average Discharge.

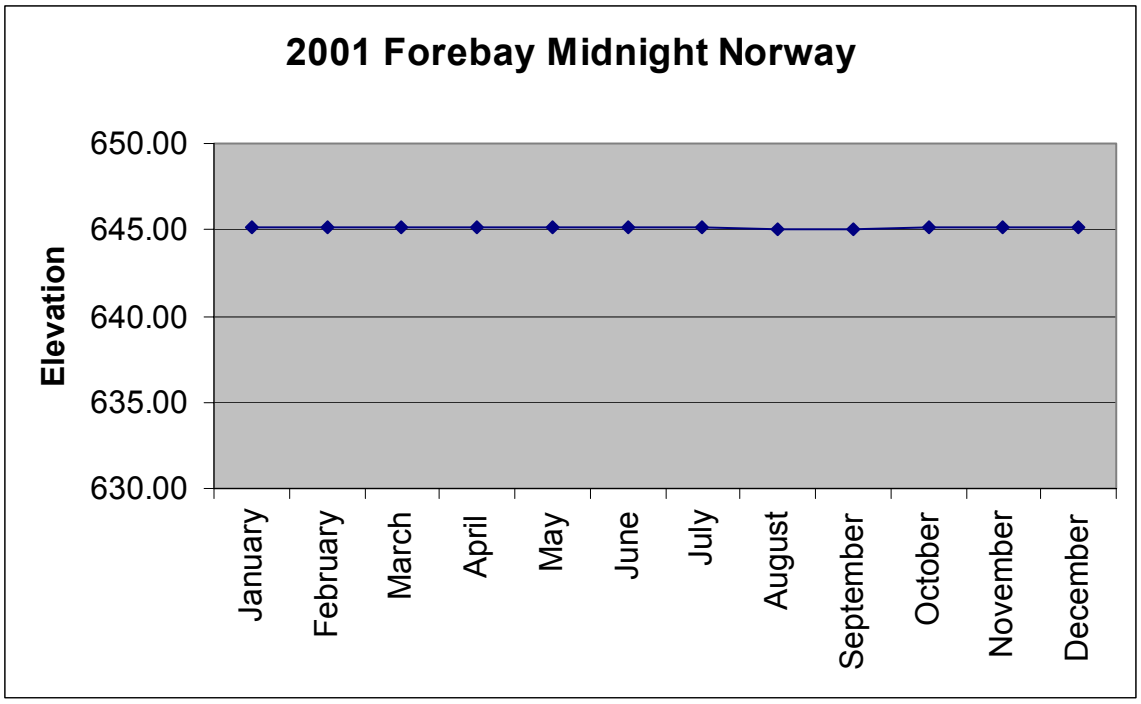

Figure B-3. 2001 Lake Shafer (Norway) Reservoir Elevation.

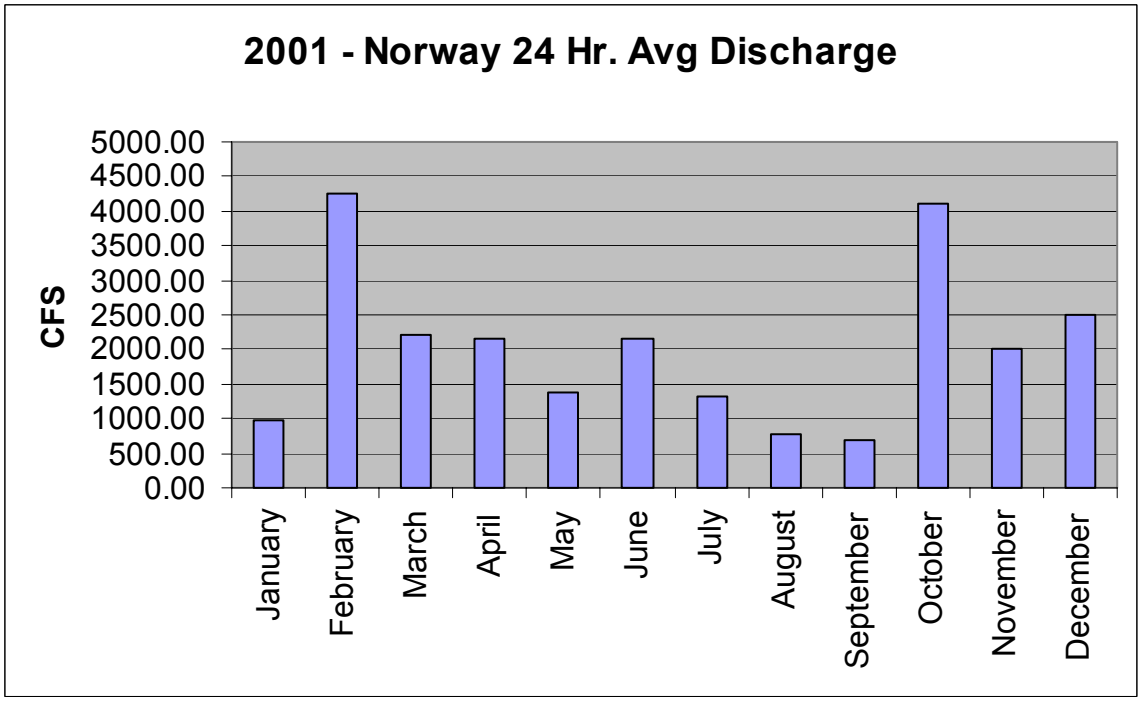

Figure B-4. 2001 Norway Average Discharge.

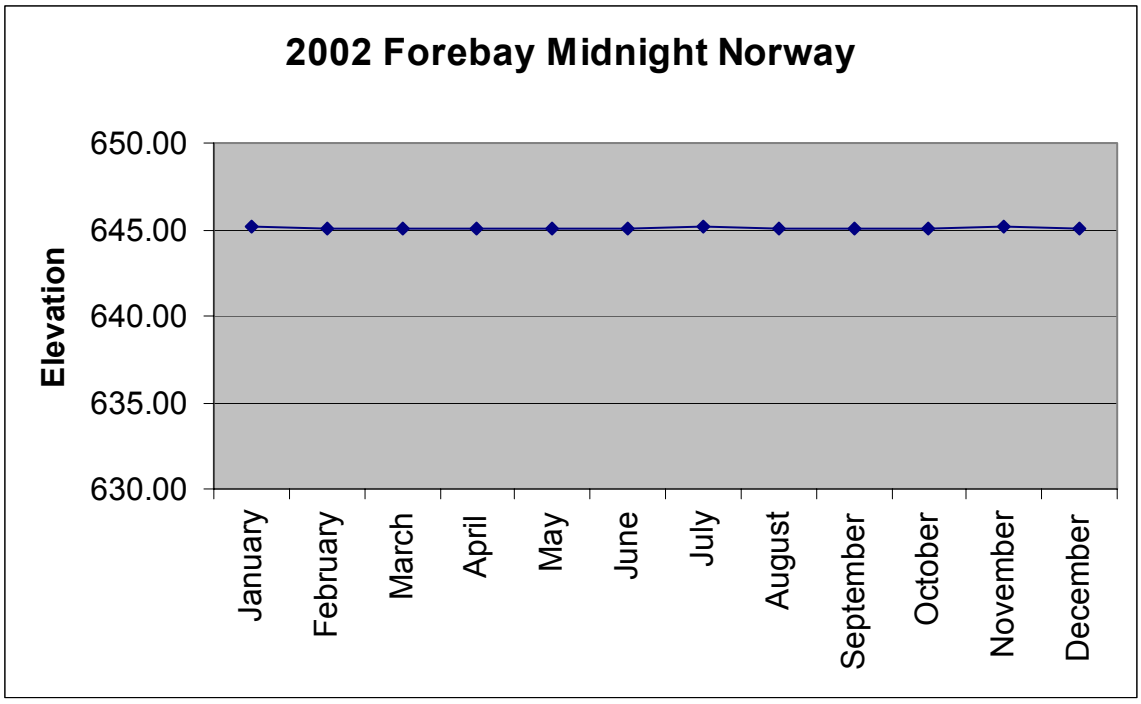

Figure B-5. 2002 Lake Shafer (Norway) Reservoir Elevation.

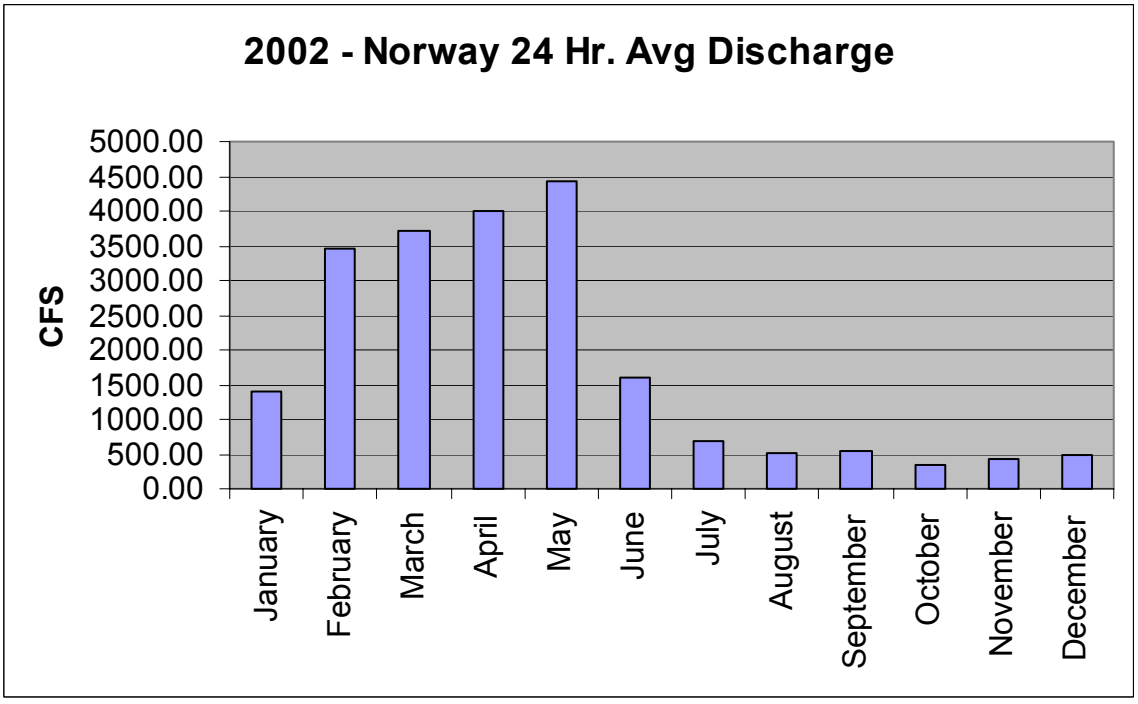

Figure B-6. 2002 Norway Average Discharge.

The Norway Facility does not operate for flood-control, due to the small size of its reservoir. It has very little flood attenuation capability. In extreme flood events with all the spillway gates open, the water level in the lake may rise if the inflow to the lake is greater than the flow that can be discharged through the spillway. In an extreme flood event, the spillway is capable of passing about 50,000 cfs with the water level in the lake just reaching the top of the earth dam El. 651.32. A flood with a flow of 50,000 cfs has a recurrence interval of about 1 in 5000 years. Refer to Section 2.2.7 for operating rule curve. Based on the recorded flows at the USGS Delphi gage (03333050) transposed to the Norway Dam location, the minimum average daily flow at the Norway Dam site is 46 cfs.

2.2 DEPENDABLE CAPACITY AND AVERAGE ENERGY

2.2.1 Dependable Capacity

Dependable capacity is assumed to be equal to the average generating output of the power plant, or approximately 3,140 kW.

2.2.2 Average Annual Energy

Historical annual energy generation and plant factor since 1987 for the Norway Facility are given in Table B-1. Annual generation has averaged 27,538 MWh over this period, with an annual low of 17,283 MWh in year 2000 and an annual high of 40,621 MWh in 1993.

Table B-1. Summary of Norway Annual Generation and Plant Factor.

Year	NORWAY FACILITY	
	Generation (MWh)	Plant Factor
1987	23,141	36.7%
1988	20,169	32.0%
1989	23,091	36.6%
1990	36,399	57.7%
1991	29,213	46.3%
1992	28,212	44.7%
1993	40,621	64.4%
1994	26,312	41.7%
1995	23,727	37.6%
1996	25,349	40.2%
1997	34,641	54.9%
1998	34,881	55.3%
1999	22,193	35.2%
2000	17,283	27.4%
2001	30,271	48.0%
2002	25,100	39.8%
AVERAGE	27,538	43.7%
Maximum	40,621	64.4%
Minimum	17,283	27.4%

2.2.3 Stream Flows

The drainage basin area above Norway Dam is estimated at 1,732 square miles. The nearest United States Geological Survey (USGS) measurement point is the Delphi gage on the Tippecanoe River just downstream of the Oakdale Facility (Gage No. 03333050), which captures a drainage area of 1,869 square miles.

The USGS has maintained two gaging stations on the Tippecanoe River near Delphi, Indiana. Gage No. 03333000, with a drainage area of 1,865 square miles, has a 47-year period of record from October 1939 through September 1986. Gage No. 03333050, with a drainage area of 1,869 square miles, has a 17-year period of record from October 1986 to present. This is the currently active gage. The present gage was relocated a short distance downstream from the earlier site in the mid-1980s. Both the present and former gage sites are located several miles downstream of Oakdale Dam. Major tributaries to the Tippecanoe River between Norway Dam and the gage site include Pike Creek, Lane Ditch, Snow Creek, and Big Creek. There is no significant regulation of the river flows by the Norway Facility, so that recorded stream flows at the gaging station are considered to generally represent natural inflows to the Project and natural stream flows in the river, with some variation due to the tributaries noted above.

Using the average daily flow values recorded at the two nearby USGS gages and transposing them to the Norway Facility, the average daily flow at the Norway Dam site is estimated at 1,655 cfs. The recorded maximum average daily flow at either of the two gaging stations was 21,000 cfs on June 10, 1958, which corresponds to approximately 20,000 cfs at Norway Dam.

Peak daily flows are also on record for the two USGS gaging stations. The recorded maximum peak flow was 22,600 cfs on February 10, 1959. The second and third highest recorded peaks are 22,100 cfs on December 30, 1990 and 21,900 cfs on February 24, 1985. Transposing the peak flow from the gage to the Norway site, the recorded maximum peak flow at Norway Dam is estimated at 21,500 cfs.

Mean daily stream flows for each month of the year at the Norway Dam were computed from an aggregate of 60 years of flow data recorded at the two USGS gaging stations. Mean daily stream flow for each month of each year was obtained from both gages. A weighted average of the gage data was then determined using the 47 years of data for gage 03333000 and the 13 years of data for gage 03333050. The gage average was prorated by the ratio of the drainage area of the facilities to the gages to arrive at the mean daily stream flow for each month at both dam locations. The results of this analysis are presented in Table B-2 below:

Table B-2. Norway Dam Mean Daily Stream Flows.

	Mean Stream Flow Data (in cubic feet per second	
Month	**USGS Gage Weighted Average**	**Norway Dam**
January	1989	1847
February	2339	2171
March	2974	2760
April	3075	2855
May	2428	2254
June	1948	1809
July	1236	1147
August	881	818
September	795	738
October	919	853
November	1166	1082
December	1642	1524
Annual Average Flow	1783	1655

Mean daily flows for each month of the year are presented graphically in the following figure (B-7):

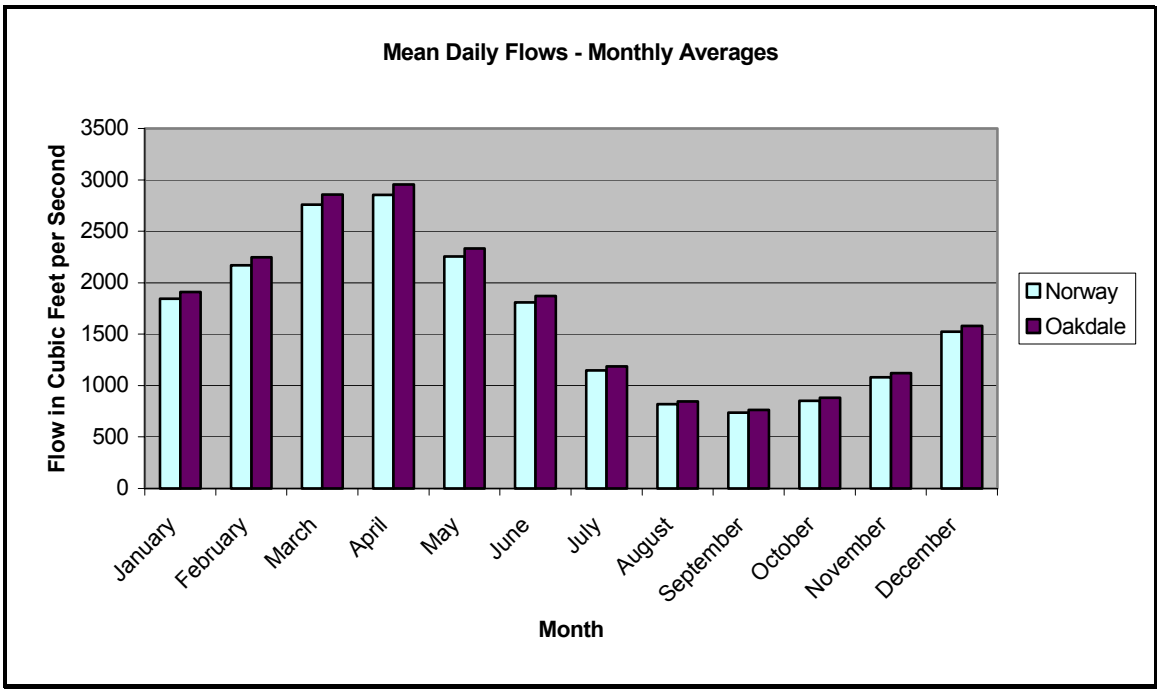

Figure B-7. Monthly Flow Rates at Norway Dam.

2.2.4 Critical Stream Flow Period

For this facility, there is no specified critical low-flow period that applies to determination of dependable capacity of the hydro plant.

2.2.5 Area-Capacity Curves

Reservoir area-capacity curves (Figure B-8) for the Norway Development are given below. These curves were generated from the hydraulic computer model developed for the MWH Inflow Design Flood Study, Norway and Oakdale Hydroelectric Project, April 2003. In that study the reservoir was modeled using cross-sections taken from USGS quadrangle maps.

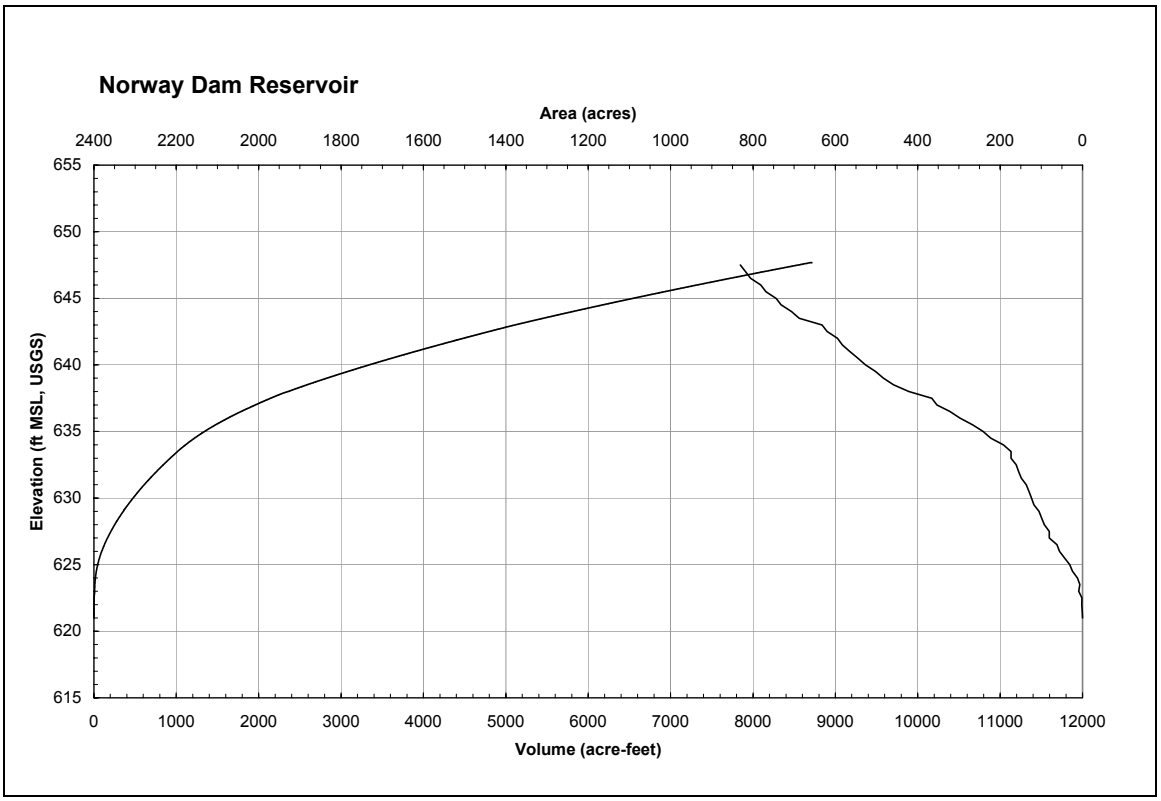

Figure B-8. Norway Facility Reservoir Area-Capacity Curves.

2.2.6 Reservoir Rule Curve

The Norway Facility is the northernmost of the two facilities and is located at river mile 30.2 above the confluence with the Wabash River. The dam forms Lake Shafer, which is 10 miles long, covering 1,291 acres at an average depth of 10 feet. Water level control is exercised at the concrete section of the dam by releases through the four turbines in the powerhouse and by use of the three spillway gates to pass flood flows. The reservoir is maintained at normal pool, El. 647.47 ft, plus or minus 0.25 feet from June 1st through September 30th, and El. 647.82 ft plus or minus 0.60 feet from October 1st through May 31st.

This established rule curve is followed at all times except when a special request for a temporary drawdown of the reservoir is received from another agency or when NIPSCO must draw the reservoir down to make structural repairs or modifications to the dam, powerhouse, spillway, or for safety reasons. A summary of drawdown events from 1975 to present is provided in Table B-3 below, which indicates the date that lowering began, the date the pool was restored to normal elevation, the maximum depth of drawdown, and a brief description of the purpose of the drawdown. These events were made for specific purposes, and were not made to enhance generation of electricity at the Norway Facility. It is expected

that drawdowns of this nature will continue to be made infrequently in future years. Whenever possible, drawdowns are done outside of the peak summer recreation season (Memorial Day to Labor Day).

As shown below, these events have been infrequent in past years. Following these drawdowns, NIPSCO typically ramps the Lake Shafer water surface elevation up at a rate of one foot per eight hours.

Table B-3. Summary of Norway (Lake Shafer) Drawdown Events From 1975 to Present

Start (mo/dy/yr)	End (mo/dy/yr)	Max. Drawdown (ft)	Purpose
2/17/1976	2/20/1976	5.1	Repair of broken chain on Norway Dam floodgate roller train.
9/13/1976	12/1976	20.7	White County Health Department request.
4/13/1979	4/30/1979	3.8	Replaced splashboard on Norway Dam concrete spillway.
9/22/1982	11/27/1982	4.7	Replace concrete on upstream side of Norway Dam.
9/29/1986	11/26/1986	16.4	Replace concrete on upstream side of Norway Dam. Replace splashboards on concrete spillway.
9/18/1995	11/8/1995	20.8	Replace Norway trash gate. Seal upstream wall of emergency spillway.

2.2.7 Facility Hydraulic Capacity

Table B-4 summarizes the hydraulic capacity of the Norway Facility. The discharge values given for the generating units are for full-gate (i.e. maximum) discharge at rated head. This means that discharge capability during a major flood, when the difference between the lake level and the tailwater level is less, would be lower.

Table B-4. Hydraulic (Discharge) Capacity of the Norway Facility.

Structure	Maximum Discharge Capacity (cubic feet per second)
Power Plant	
Generating Unit No. 1	1,020 cfs
Generating Unit No. 2	1,020 cfs
Generating Unit No. 3	1,020 cfs
Generating Unit No. 4	615 cfs
Subtotal	**3,675 cfs**
Spillway	
Spillway Gates (3 sluices–7,500 cfs each at normal pool level)	22,500 cfs (at normal pool level)
Total Discharge Capacity	**26,175 cfs (at normal pool level)**
	~ 50,000 cfs (with pool at top of dam)

2.2.8 Tailwater Rating Curve

Tailwater levels downstream of the dam vary with natural river flow for a distance of about two miles, at which point the water level in the river is controlled by the level of Lake Freeman (when the lake is at normal operating levels). Normal tailwater is at approximately El. 615.32 ft (Figure B-9).

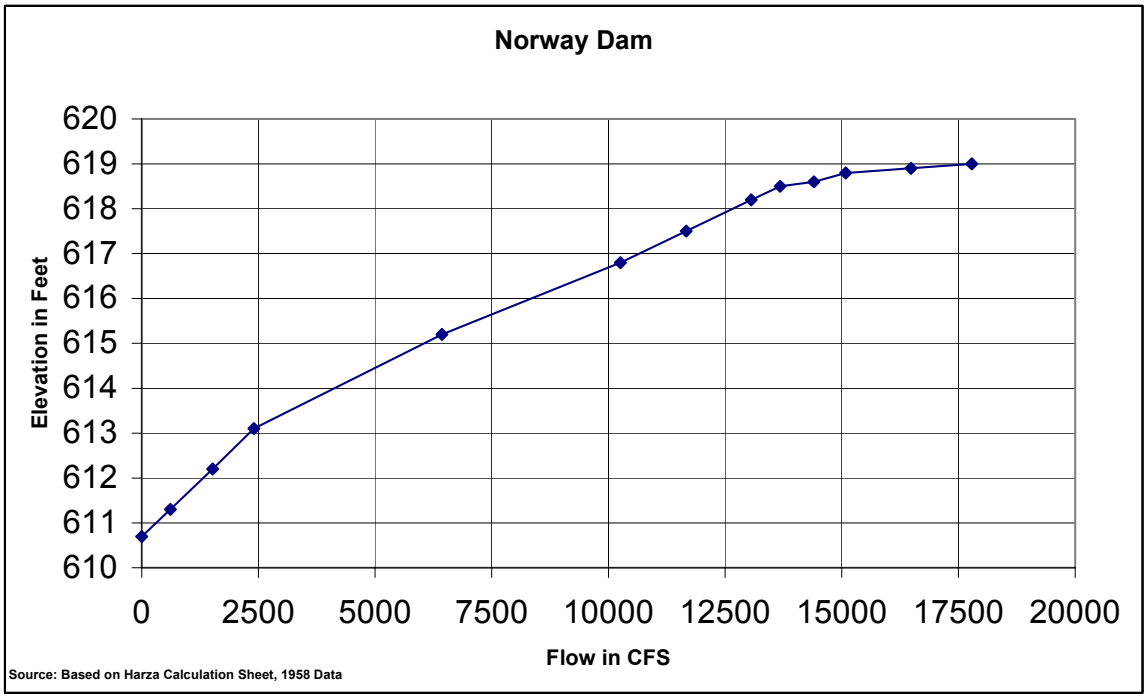

Figure B-9. Norway Facility Tailwater Rating Curves.

2.2.9 Power Plant Capability versus Head

Figure B-10 provides information regarding Norway power plant capability versus power head. As the Norway facility is operated as run-of-river, Figure B-10 represents power plant capacity for minimum, normal, and maximum head.

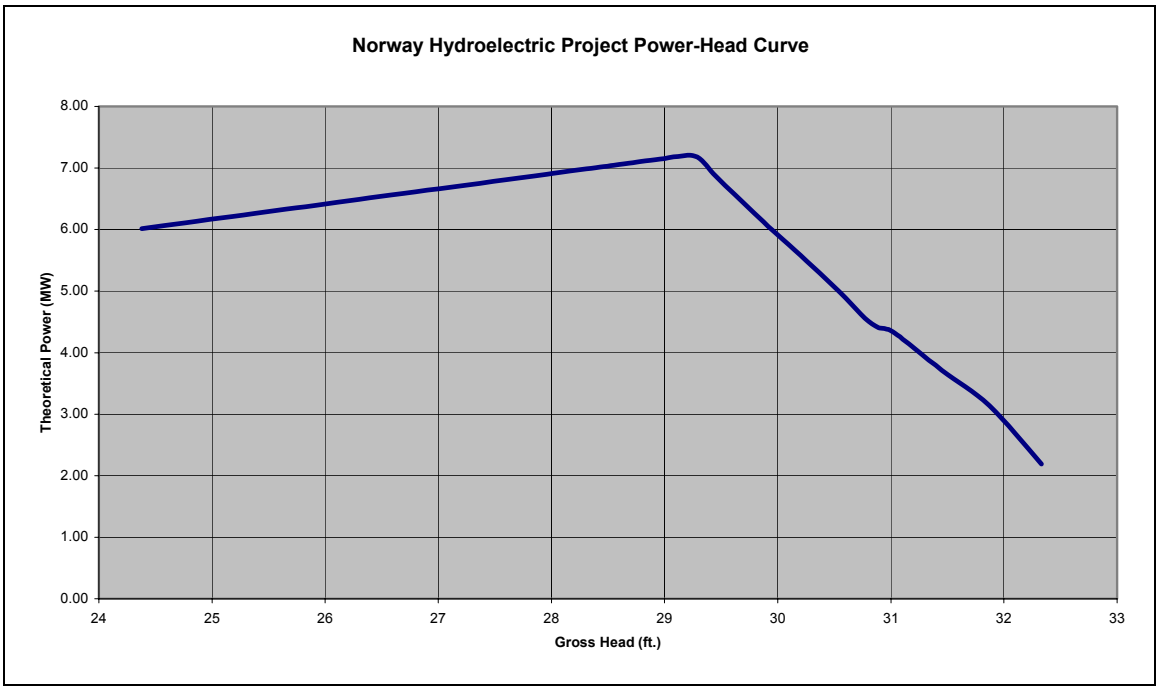

Figure B-10. Norway Facility Power Plant Capability vs. Head

Norway facility's total installed generating capacity is 7.2 MW. Rated head on the power plant is 28 feet at full-gate discharge of 3,675 cfs. The plant generally operates at less than 30 feet of head.

2.3 POWER UTILIZATION

All generation from the plant is dispatched directly into the local grid and is utilized within the East Central Area Reliability Council (ECAR) area. ECAR was established in 1967 to augment the reliability of its members' electricity supply systems through coordination of the planning and operation of the members' generation and transmission facilities. ECAR's membership includes 29 major electricity suppliers located in nine east-central states serving more than 36 million people.

Full members of ECAR are shown in Table B-5.

Table B-5. ECAR Membership

Company	Headquarters	Company	Headquarters
Allegheny Power (AP)	Hagerstown, MD	American Electric Power (AEP)	Columbus, OH
Big Rivers Electric Corp (BREC)	Henderson, KY	Cinergy Corporation (CIN)	Cincinnati, OH
Consumers Energy (CONS)	Jackson, MI	The Dayton Power and Light Co (DPL)	Dayton, OH
The Detroit Edison Co. (DECO)	Detroit, MI	Duke Energy North America (DENA)	Houston, TX
Duquesne Light Co. (DLCO)	Pittsburgh, PA	East Kentucky Power Coop., Inc. (EKPC)	Winchester, KY
FirstEnergy (FE)	Akron, OH	Grid America (GA)	Cleveland, OH
Hoosier Energy Rural Electric (HEC)	Bloomington, IN	Indianapolis Power & Light (IPL)	Indianapolis, IN
International transmission Company (ITC)	Ann Arbor, MI	LGE Energy (LGEE)	Louisville, KY
Michigan Electric Transmission Co. LLC (METC)	Ann Arbor, MI	Northern Indiana Public Service Co. (NIPSCO)	Hammond, IN
Ohio Valley Electric Corp. (OVEC)	Piketon, OH	PJM Interconnection LLC	Morristown, PA
Vectren Energy Delivery of Indiana (VEDI)	Evansville, IN		

3. OAKDALE FACILITY

3.1 PLANT OPERATION

3.1.1 Type of Operation

The Oakdale Facility is operated essentially in a run-of-river mode. It is automated and can be either manually controlled locally, from within the powerhouse, operated remotely from NIPSCO's Southlake Complex located in Merrillville, Indiana, or operated remotely via laptop computer.

During normal operations, the lake level at the powerhouse is maintained within plus or minus 0.60 ft. of El. 610.50/612.60 ft. for operation of the plant. The lake level at the powerhouse is normally maintained within plus or minus 0.25 ft. of El. 610.35/612.45 ft. for operation of the plant from June 1 to September 30. Operation to maintain lake level may be modified in response to electrical generation system emergency conditions or other conditions affecting safe operation of the facilities, including major maintenance of the dam and or powerhouse (which will be scheduled during October 1 through May 31, if practicable, to avoid the peak recreation season). Hydrologic conditions beyond the operators' control also may result in lake levels outside the normal operating range. Release of water from the lakes will be made according to the following order of operations, which is dependent on the magnitude of the flow to be passed by the structures:

1. Water will be passed through the turbine/generator units until all units are operating at full gate (i.e. maximum discharge)
2. Spillway gates are opened incrementally to pass in excess of the turbine/generators' maximum discharge until all gates are open about 7.5 feet

3. Spillway gates (all of which should be open about 7.5 feet at this point) are opened incrementally to pass excess flow until all gates are open about 12.5 feet
4. Siphons are started sequentially until all siphons are operating
5. Spillway gates are fully opened

3.1.2 Operation During Adverse, Mean, and High Water Years

Daily operation of the reservoir generally matches the flow pattern into Lake Freeman, with outflows from the dam generally equaling inflows over a 24-hour period. Figures B-11 through B-16 depict the daily reservoir elevations and discharges for calendar years 2000, 2001, and 2002.

The Oakdale Facility does not operate for flood-control, due to the small size of its reservoir. It has very little flood attenuation capability. In extreme flood events the water level in the lake may rise if the inflow to the lake is greater than the flow that can be discharged through the gated and siphon spillways and the powerhouse. In an extreme flood event, the spillway is capable of passing about 50,000 cfs with the water level in the lake just reaching the top of the east dam (El. 623.10). A flood with a flow of 50,000 cfs has a recurrence interval of about 1 in 5000 years. Refer to Section 3.2.7 for operating rule curve. Based on recorded flows at the USGS Delphi gage (03333050) transposed to the Oakdale Dam location, the minimum average daily flow at the Oakdale Dam site is 48 cfs.

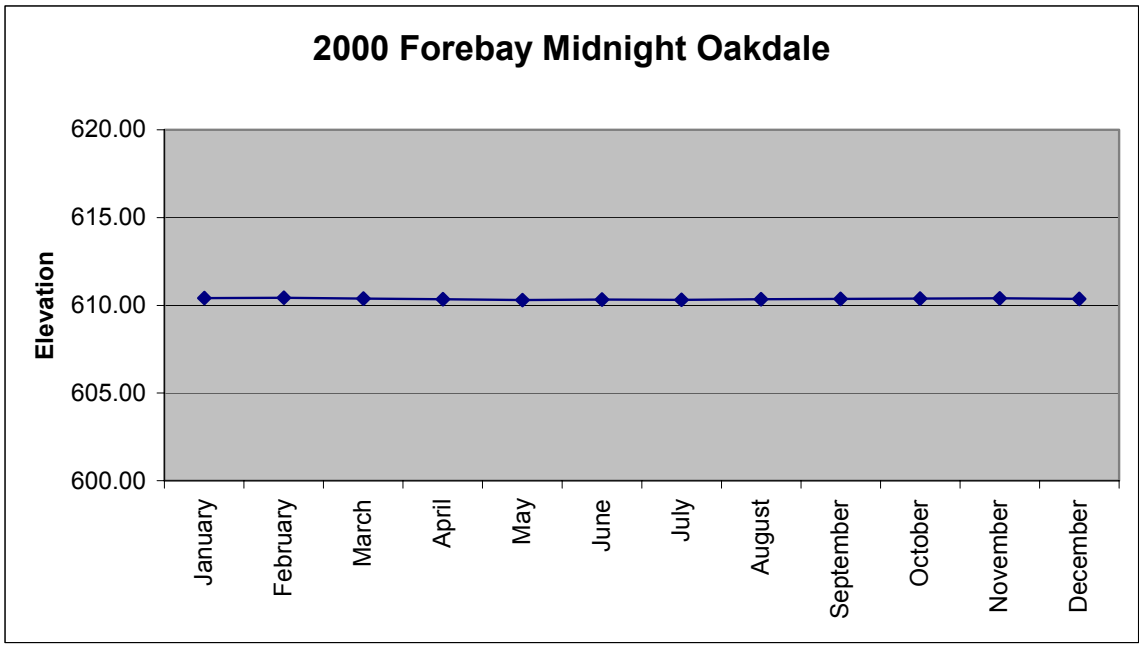

Figure B-11. 2000 Lake Freeman (Oakdale) Reservoir Elevation.

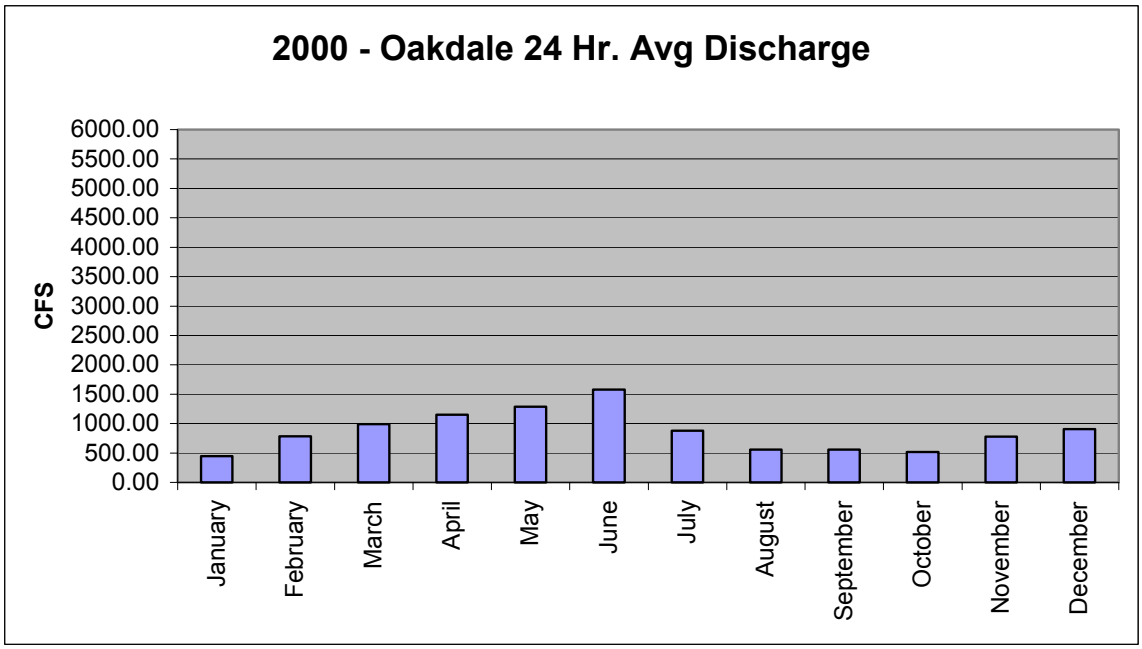

Figure B-12. 2000 Oakdale Average Discharge.

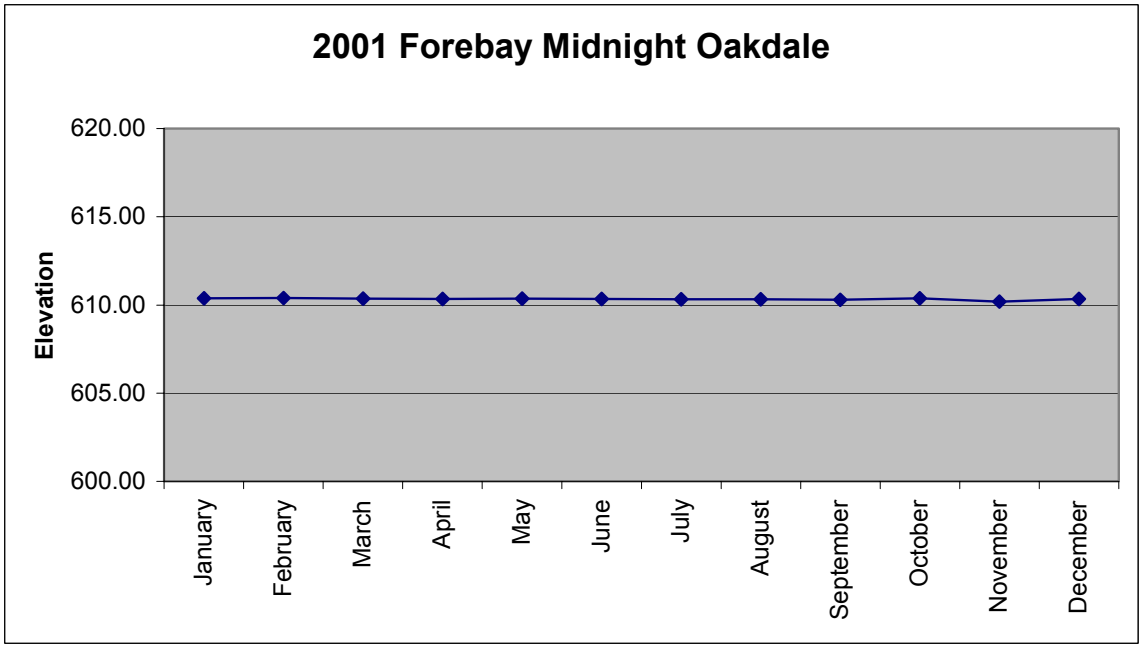

Figure B-13. 2001 Lake Freeman (Oakdale) Reservoir Elevation.

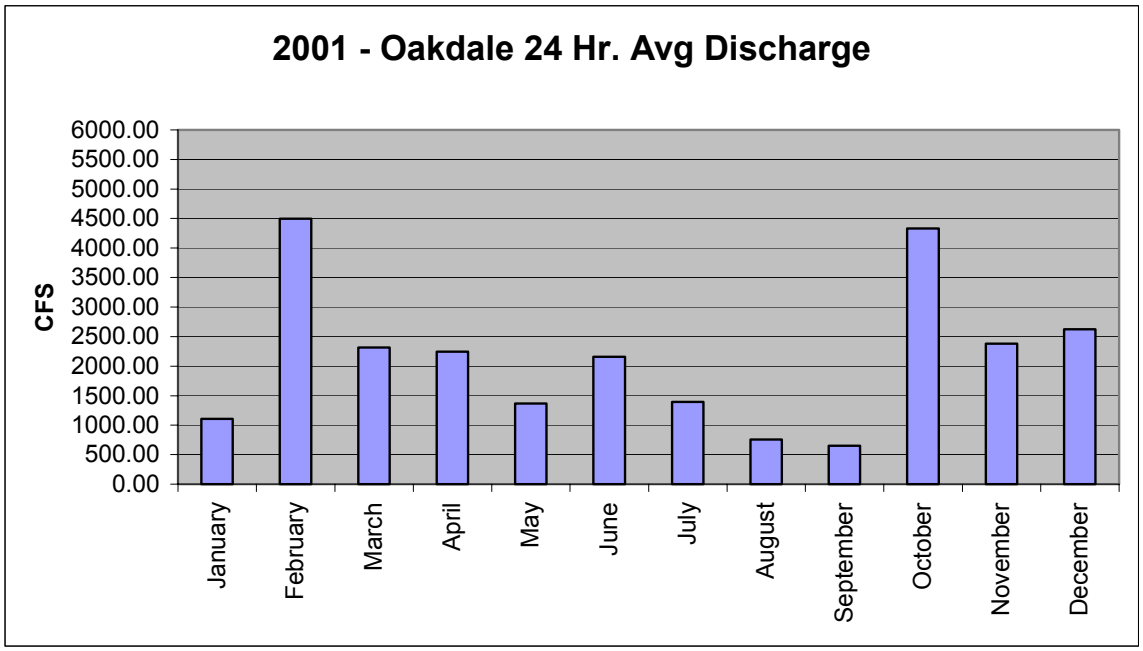

Figure B-14. 2001 Oakdale Average Discharge.

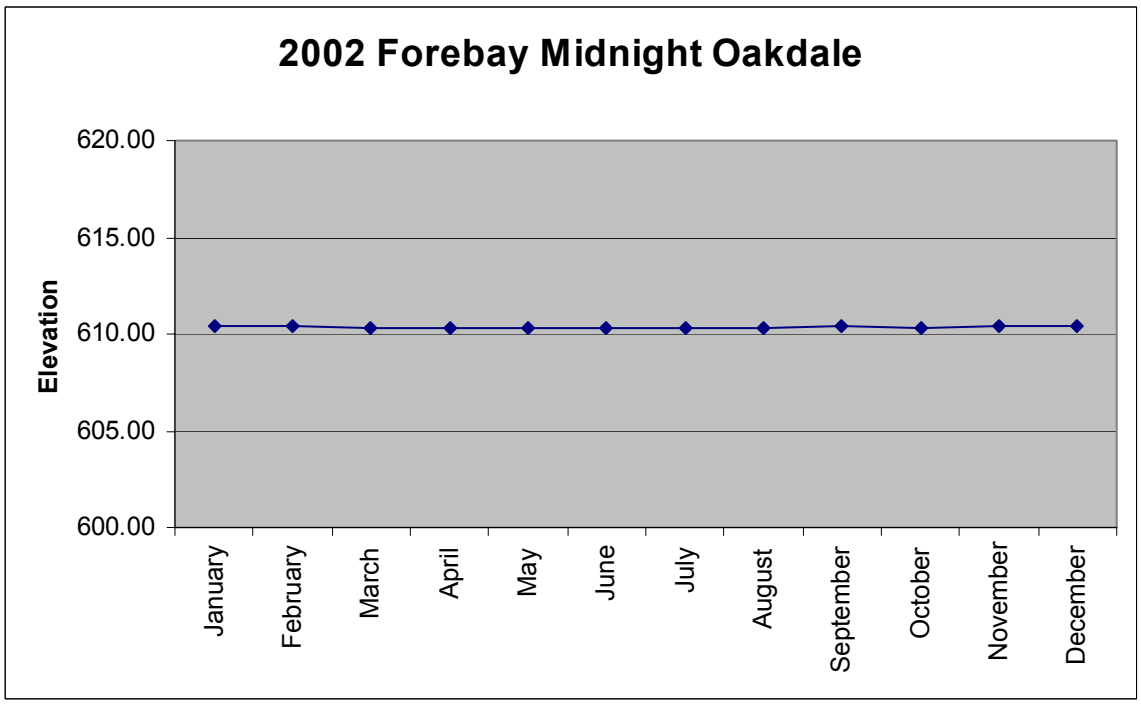

Figure B-15. 2002 Lake Freeman (Oakdale) Reservoir Elevation.

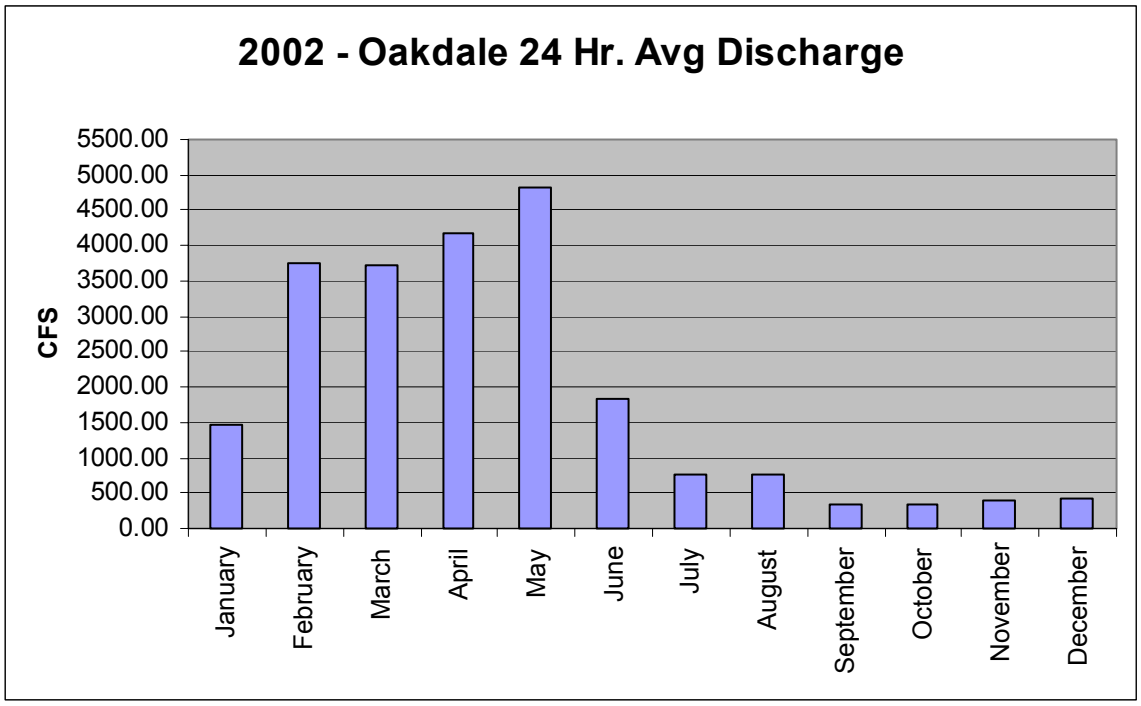

Figure B-16. 2002 Oakdale Average Discharge.

3.2 DEPENDABLE CAPACITY AND AVERAGE ENERGY

3.2.1 Dependable Capacity

Dependable capacity is assumed to be equal to the average generating output of the power plant, or approximately 4,370 kW.

3.2.2 Average Annual Energy

Historical annual energy generation and plant factor since 1987 for the Oakdale Facility are given in Table B-6. Annual generation has averaged 37,466 MWh over this period, with an annual low of 23,033 MWh in year 2002 and an annual high of 54,864 MWh in 1990.

Table B-6. Summary of Oakdale Annual Generation and Plant Factor.

Year	OAKDALE FACILITY	
	Generation (MWh)	Plant Factor
1987	35,185	43.7%
1988	30,363	37.7%
1989	33,544	41.6%
1990	54,864	68.1%
1991	42,557	52.8%
1992	41,731	51.8%
1993	48,745	60.5%
1994	30,116	37.4%
1995	35,647	44.2%
1996	41,167	51.1%
1997	46,545	57.8%
1998	46,839	58.1%
1999	23,660	29.4%
2000	25,055	31.1%
2001	40,403	50.1%
2002	23,033	28.6%
AVERAGE	**37,466**	**46.5%**
Maximum	**54,864**	**68.1%**
Minimum	**23,033**	**28.6%**

3.2.3 Stream Flows

The drainage basin area above Oakdale Dam is estimated at 1,793 square miles. The nearest United States Geological Survey (USGS) measurement point is the Delphi gage on the Tippecanoe River just downstream of the Oakdale Facility (Gage No. 03333050), which captures a drainage area of 1,869 square miles.

The USGS has maintained two gaging stations on the Tippecanoe River near Delphi, Indiana. Gage No. 03333000, with a drainage area of 1,865 square miles, has a 47-year period of record from October 1939 through September 1986. Gage No. 03333050, with a drainage area of 1,869 square miles, has a period of record from October 1986. This is the currently active gage. The present gage was relocated a short distance downstream from the earlier site in the mid-1980s. Both the present and former gage sites are located several miles downstream of Oakdale Dam. Four major tributaries to the Tippecanoe River (Pike Creek, Lane Ditch, Snow Ditch, and Big Creek) are located between Norway Dam and the gage site. There is no significant regulation of the river flows by the Oakdale Facility, so that recorded stream flows at the gaging station are considered to generally represent natural inflows to the Project and natural stream flows in the river with some variation due to the tributaries noted above.

Using the average daily flow values recorded at the two nearby USGS gages and transposing them to the Oakdale Facility, the average daily flow at the Oakdale Dam site is estimated at 1,713 cfs . The recorded maximum average daily flow at either of the two gaging stations was 21,000 cfs on June 10, 1958, which corresponds to approximately 20,500 cfs at Oakdale Dam.

Peak daily flows are also on record for the two USGS gaging stations. The recorded maximum peak flow was 22,600 cfs on February 10, 1959. The second and third highest recorded peaks are 22,100 cfs on December 30, 1990 and 21,900 cfs on February 24, 1985. Transposing the peak flow from the gage to the Oakdale site, the recorded maximum peak flow at Oakdale Dam is estimated at 22,000 cfs.

Mean daily stream flows for each month of the year at the Oakdale Dam were computed from an aggregate of 60 years of flow data recorded at the two USGS gaging stations. Mean daily stream flow for each month of each year was obtained from both gages. A weighted average of the gage data was then determined using the 47 years of data for gage 03333000 and the 13 years of data for gage 03333050. The gage average was prorated by the ratio of the drainage area of the facilities to the gages to arrive at the mean daily stream flow for each month at both dam locations. The results of this analysis are presented in Table B-7 below:

Table B-7. Oakdale Dam Mean Daily Stream Flows.

	Mean Stream Flow Data (in cubic feet per second)	
Month	**USGS Gage Weighted Average**	**Oakdale Dam**
January	1989	1912
February	2339	2247
March	2974	2858
April	3075	2955
May	2428	2334
June	1948	1872
July	1236	1187
August	881	847
September	795	764
October	919	883
November	1166	1121
December	1642	1578
Annual Average Flow	**1783**	**1713**

Mean Oakdale Dam daily flows for each month of the year are presented graphically in the following figure (B-17):

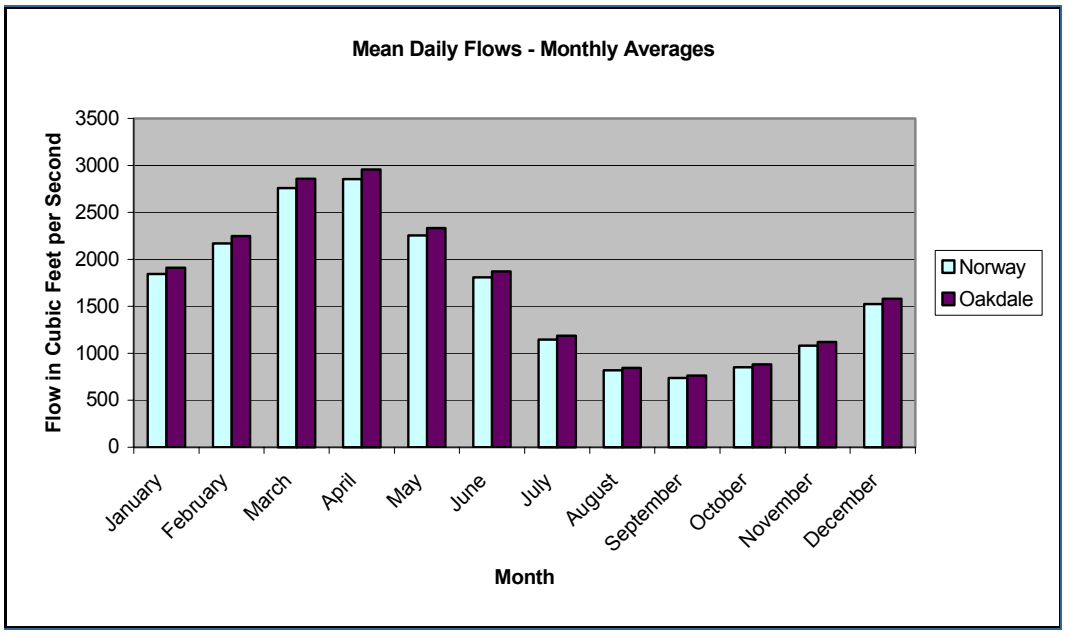

Figure B-17. Monthly Flow Rates at Oakdale Dam.

3.2.4 Critical Stream Flow Period

For this facility, there is no specified critical low-flow period that applies to determination of dependable capacity of the hydro plant.

3.2.5 Area-Capacity Curves

Reservoir area-capacity curves (Figure B-18) for Oakdale Development are given below. These curves were generated from the hydraulic computer model developed for the MWH Inflow Design Flood Study, Norway and Oakdale Hydroelectric Project, April 2003. In that study the reservoir was modeled using cross-sections taken from USGS quadrangle maps.

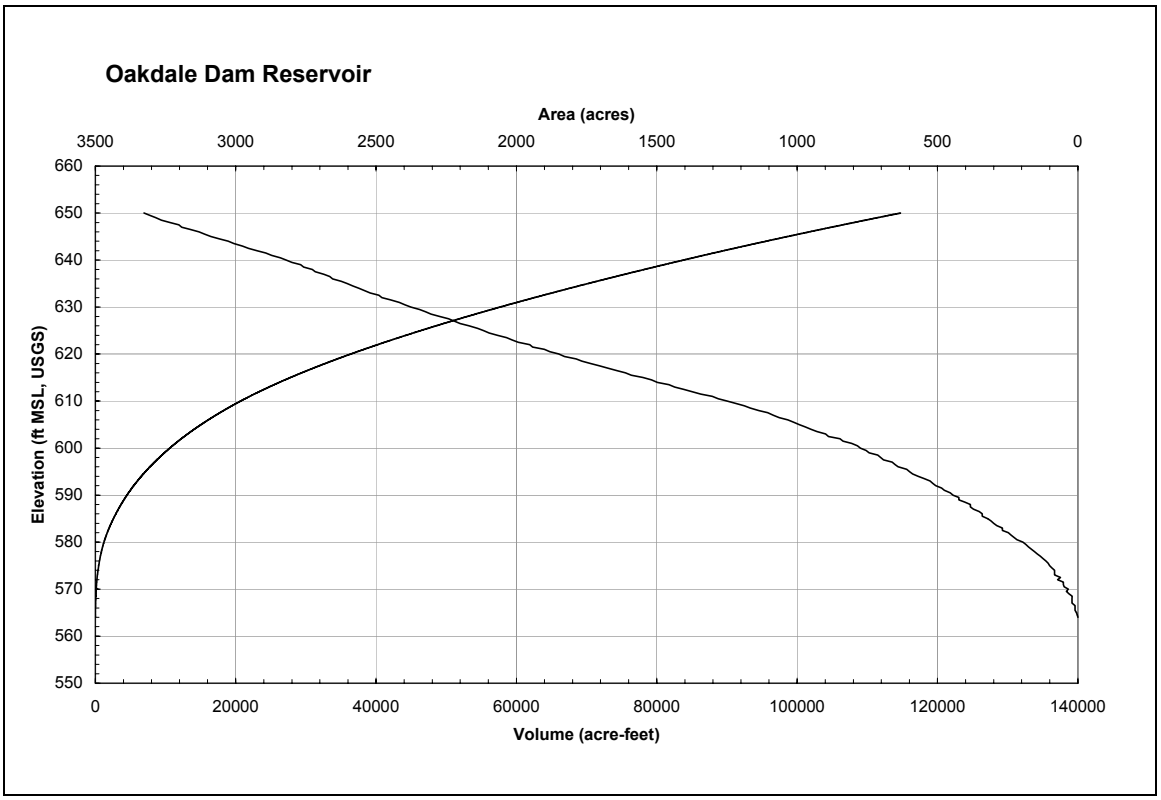

Figure B-18. Oakdale Facility Reservoir Area-Capacity Curves.

3.2.6 Reservoir Rule Curve

The Oakdale Facility is located at river mile 17.8 above the confluence with the Wabash River. The dam forms Lake Freeman, which is 10 miles long, covering 1,547 acres at an average depth of 16 feet. Water level control is exercised at the concrete section of the dam by releases through the three turbines in the powerhouse and by use of the two spillway gates and six siphons to pass flood flows. During normal operations, the lake level at the powerhouse is maintained within plus or minus 0.60 ft. of El. 612.60 ft. for operation of the plant. The lake level at the powerhouse is generally maintained within plus or minus 0.25 ft. of El. 612.45 ft. for operation of the plant from June 1 to September 30.

As with Lake Shafer, this established rule curve for Lake Freeman is followed at all times except when a special request for a temporary drawdown of the reservoir is received from another agency; when NIPSCO must draw the reservoir down to make structural repairs or modifications to the dam, powerhouse or spillway; or for public safety reasons. A summary of drawdown events from 1975 to present is provided in Table B-8 below, which indicates the date that lowering began, the date the pool was restored to normal elevation, the maximum depth of drawdown, and a brief description of the purpose of the drawdown. These events were made for specific purposes, and were not made to enhance generation of electricity at the Norway Facility. It is expected that drawdowns of this nature will continue to be made infrequently in future years. Whenever possible, drawdowns are done outside of the peak summer recreation season (Memorial Day to Labor Day).

As shown below, these events have been infrequent in past years. Following these drawdowns, NIPSCO typically ramps the Lake Freeman water surface elevation up at a rate of one foot per eight hours.

Table B-8. Summary of Oakdale (Lake Freeman) Drawdown Events From 1975 to Present.

Start (mo/dy/yr)	End (mo/dy/yr)	Max. Depth (ft)	Purpose
9/13/1976	12/1976	18.6	White County Health Department request.
5/18/1981	5/22/1981	2.1	Oakdale siphon gate missing. Built wall in siphon.
10/4/1982	12/3/1982	8.7	Replace concrete on upstream side of Oakdale Dam. Replace wooden siphon gates in two siphons. White County to dredge ditch at Airport.
9/16/1984	12/7/1984	12.0	Replace concrete on upstream side of Oakdale Dam. Replace wooden siphon gates in two siphons.
10/1/1985	11/14/1985	8.1	Replace concrete on upstream side of Oakdale Dam. Replace wooden siphon gates in two siphons.
10/29/1990	11/3/1990	4.3	Oakdale siphon gate missing. Built wall in siphon
9/27/1993	11/27/1993	17.0	Replace three Oakdale siphon gates. Remove trash from generator intake screens.
11/13/2001	11/17/2001	1.0	Requested by Indiana Dept. of Transportation and Jack Isom Construction Co., for US 421 and SR 39 Bridge work..

3.2.7 Facility Hydraulic Capacity

Table B-9 summarizes the hydraulic capacity of the Oakdale Facility. The discharge values given for the generating units are for full-gate discharge at rated head. The total discharge capacity of the Oakdale Facility with the pool at normal maximum level (30,200 cfs) far exceeds the largest flood since the project was placed into service (about 22,000 cfs).

Table B-9. Hydraulic (Discharge) Capacity of the Oakdale Facility.

Structure	Maximum Discharge Capacity (cubic feet per second)
Power Plant	
Generating Unit No. 1	1,440 cfs
Generating Unit No. 2	1,240 cfs
Generating Unit No. 3	520 cfs
Subtotal	**3,200 cfs**
Spillway	
Spillway Gates (2 sluices–7,500 cfs each at normal pool level)	15,000 cfs (at normal pool)
Siphons (6 siphons–2,000 cfs each at normal pool level)	12,000 cfs (at normal pool)
Total Discharge Capacity	**30,200 cfs (at normal pool level)**
	~50,000 cfs (with pool at top of dam)

3.2.8 Tailwater Rating Curve

Normal tailwater is approximately El. 566 ft (USGS datum). There is no operator control over tailwater levels. Tailwater levels below the dam vary with natural river flow (Figure B-19).

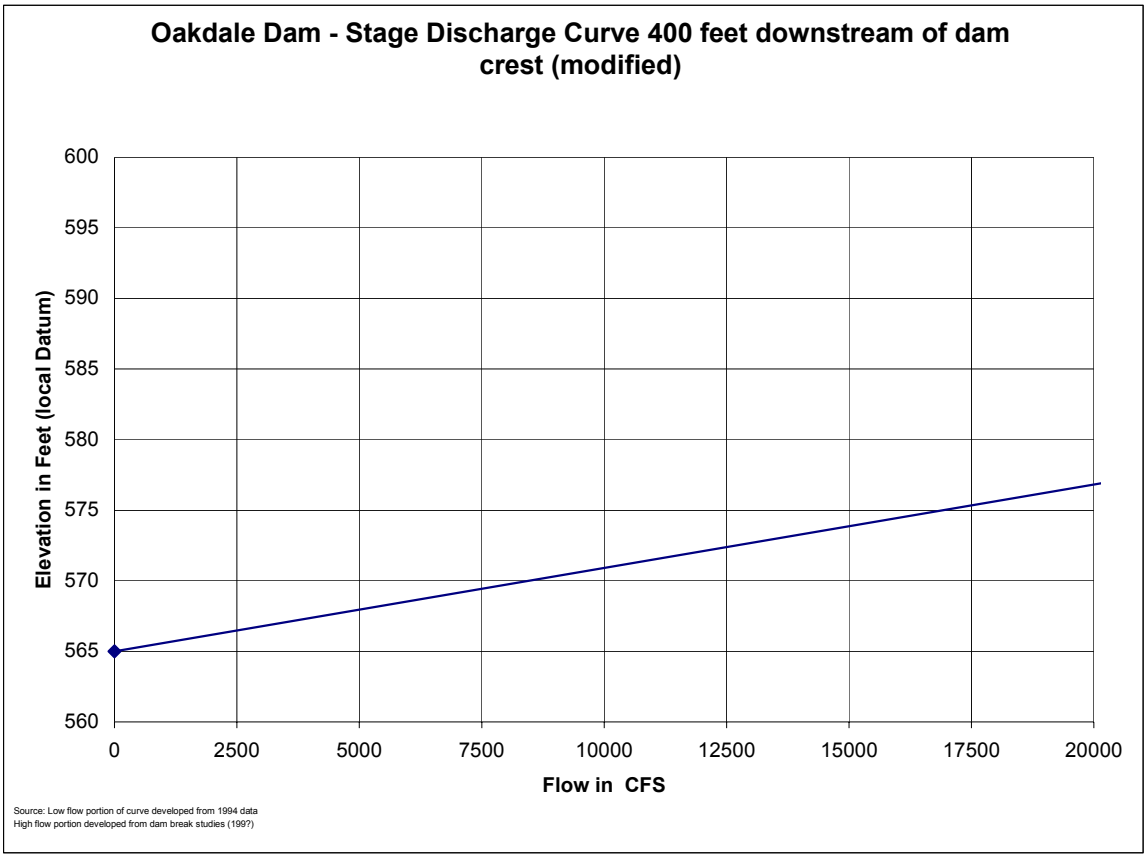

Figure B-19. Oakdale Facility Tailwater Rating Curve.

3.2.9 Power Plant Capability versus Head

Figure B-20 below provides information regarding power plant capability versus power head. As the Oakdale facility is operated as run-of-river, Figure B-20 represents power plant capacity for minimum, normal, and maximum head.

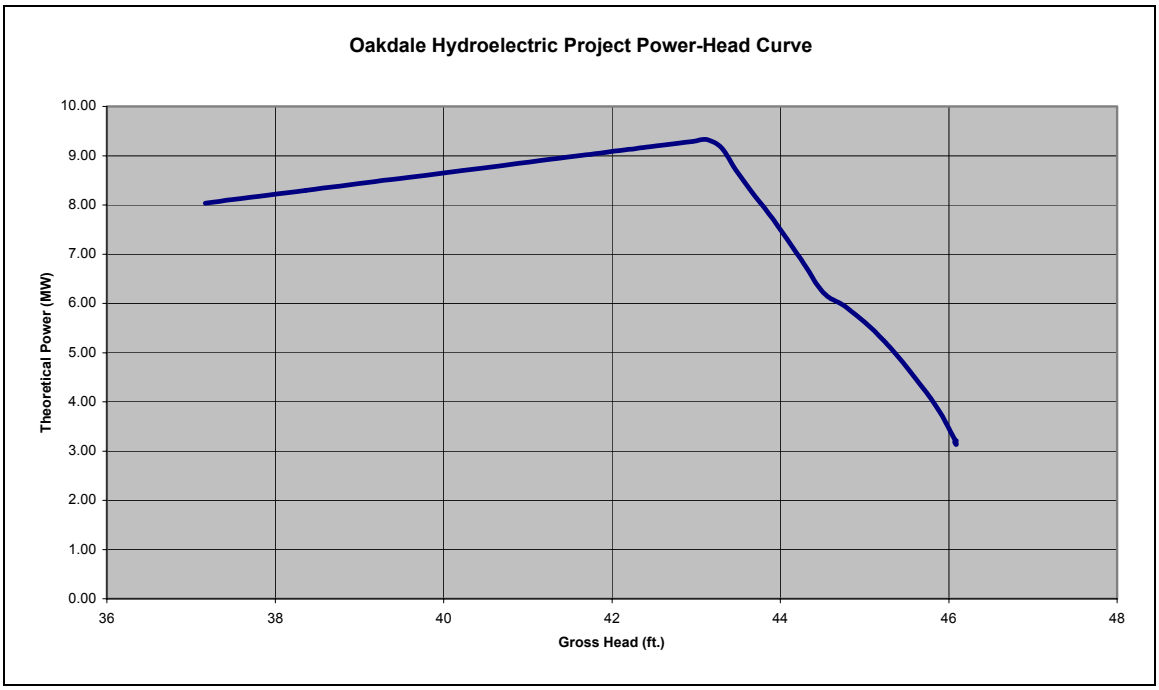

Figure B-20. Oakdale Facility Power Plant Capability vs. Head

Oakdale Facility's total installed generating capacity is 9.2 MW. Rated head on the power plant is 42 feet for some units and 48 feet for others, at full-gate discharge of 3,200 cfs. The plant generally operates at less than 45 feet of head.

3.3 POWER UTILIZATION

All generation from the plant is dispatched directly into the local grid and is utilized within ECAR. Refer to discussion above for Norway Facility for further details.

4. PLANS FOR DEVELOPMENT

4.1 NORWAY FACILITY

NIPSCO has no plans for additional power development at the Norway Facility.

However, in its September 26, 2000 Order requiring NIPSCO to obtain a federal license for the Norway and Oakdale Facilities, the Federal Energy Regulatory Commission (FERC) also required NIPSCO to comply with Part 12 of the Commission's regulations regarding dam safety. Therefore, the Project is subject to periodic safety inspection by an independent consultant experienced in dam safety review. The initial inspection of both projects was completed in November 2001. Based on these inspections, it was determined that significant modifications would likely be required to both dams in order to achieve higher overall factors of safety with respect to passage of flood flows under a rare flood event, and to make security upgrades.

Once plans for the modifications are agreed upon by FERC, final designs would be prepared, and construction completed by about 2006 or 2007. This work would be performed under Part 12 of FERC's

regulations, and therefore is not reflected in drawings currently being submitted with this license application under Part 4 of the Commission's regulations.

4.2 OAKDALE FACILITY

NIPSCO has no plans for additional power development at the Oakdale Facility.

However, as indicated above for the Norway site, FERC has required NIPSCO to comply with Part 12 of the Commission's regulations regarding dam safety. Therefore, the Project is subject to periodic safety inspection by an independent consultant experienced in dam safety review. The initial inspection of both projects was completed in November 2001. Based on these inspections, it was determined that significant modifications would likely be required to both dams in order to achieve higher overall factors of safety with respect to passage of flood flows under a rare flood event, and to make security upgrades.

Once plans for the modifications are agreed upon by FERC, final designs would be prepared, and construction completed by about 2006 or 2007. This work would be performed under Part 12 of FERC's regulations, and therefore is not reflected in drawings currently being submitted with this license application under Part 4 of the Commission's regulations.