UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northern Indiana Public Service Company	)	Project No. 12514-074

PROTEST, COMMENTS, AND REQUEST FOR HEARING OF SHAFER AND FREEMAN LAKES ENVIRONMENTAL CONSERVATION CORPORATION, CARROLL COUNTY, WHITE COUNTY AND CITY OF MONTICELLO

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Pursuant to Rule 211 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission" or "FERC"), 18 C.F.R. § 385.211 (2015), and the Commission's April 8, 2015, Notice of Extension of Time, Shafer & Freeman Lakes Environmental Conservation Corporation ("SFLECC") on its own behalf and on behalf of its licensees and members; Carroll County, Indiana; White County, Indiana; and the City of Monticello, Indiana (collectively the "Protest Coalition") submit the following Protest, Comments and Request for Hearing. For the reasons set forth below, the Protest Coalition opposes Northern Indiana Public Service Company's ("NIPSCO") October 2, 2014, request to modify its Original License for the Norway-Oakdale Hydroelectric Project, Project No. 12514 (the "Project") on the Tippecanoe River in Northern Indiana.[1]

INTRODUCTION

The Commission's Original License for the Project allowed NIPSCO to lower the level of Lake Freeman, which was created by the Project's Oakdale Dam, by no more than three inches. App. 47. The pending license modification, if granted, would authorize NIPSCO to reduce the level of Lake Freeman by more than 12 feet. Because Lake Freeman has an average depth of just 16 feet, the proposed modification would have devastating consequences to the interests of the Protest Coalition in the environment at Lake Freeman, access to marine craft and the safety of their operation, the stability of lakefront sea walls, tourism, viability of business, employment, the stability of local communities and the local tax base.

A stated reason for NIPSCO's proposed license modification is that the existence of the Oakdale Dam and Lake Freeman, which have been in place on the Tippecanoe River for 90

[1] An Appendix of numbered documents is attached hereto and cited as "App. __." The order issuing the Original License is found at App. 20 to 70. *Northern Indiana Public Service Company*, 121 FERC ¶ 62,009 (2007).

years, are altering the natural run-of-river during periods of low flow to the detriment of protected species of mussels.

The fatal flaws underlying the theory used by FWS/NIPSCO to justify the modification are exposed by two experts in hydrology, who determined:

- The best available science demonstrates that the existence of the Oakdale Dam and Lake Freeman do not alter the natural run of the lower Tippecanoe River and, therefore, do not harm the mussels;

- The hydrological theory used by NIPSCO to justify the proposed modification cannot predict what "natural" rates of low flow would be in the absence of the Oakdale Dam; and

- Even if the hydrological theory used in NIPSCO's proposed modification had application here (which it does not), the theory has been misapplied.

The Expert Reports of Dr. Bernard Engel and Dr. Robert Criss are being filed separately in support of this Protest and are summarized below.

At bottom, the U.S. Fish & Wildlife Service ("FWS") and NIPSCO seek to use water from Lake Freeman to provide a benefit to the mussels that is *unnatural* because it is over and above what the Tippecanoe River would provide in its natural state. The issue for the Commission is whether NIPSCO has supported its proposed license modification with the best available science evidence to establish that the existence of the Oakdale Dam/Lake Freeman are harming protected mussels. Because the proposed modification is not supported by the best available science and the Oakdale Dam and Lake Freeman are not harming the mussels, the Protest Coalition respectfully urges the Commission to deny the requested modification or, at a minimum, conduct a hearing so that this important hydrological issue may be fully ventilated.[2]

[2] Although the data behind FWS's listing of the mussels and its critical habitat in the Tippecanoe River is scant, at this time the Protest Coalition does not challenge FWS's

I. Parties To The FERC Proceeding

A. Intervenor SFLECC

SFLECC is a not-for-profit, 501(c)(3) corporation established in 1994. App. 1 to 5. That same year, NIPSCO deeded virtually all of its interests in the Project lands, consisting of some 2,000 parcels comprising 4,000 acres, around and beneath Lakes Freeman and Shafer to SFLECC. The value of the property donated by NIPSCO to SFLECC has been estimated to be in excess of $20 million. App. 19. SFLECC, which holds title to this property, is comprised of thousands of licensees abutting the property, including resident and vacation homeowners. Other members of SFLECC include marinas, rental properties, and a host of local businesses. A purpose of SFLECC is to "protect and enhance the environment and water quality of [Lakes Shafer and Freeman] in order to facilitate public recreational use." App. 1. U.S. Senator Dan Coats recently recognized SFLECC's work on environmental and economic issues at the lakes "set it apart as a standard for community-based conservation management and care." App. 502.

As NIPSCO acknowledges, the proposed modification would allow drawdowns in excess of 12 feet at Lake Freeman with serious impacts to the natural environment and aesthetics at the lakeshore and of the lake itself; a reduction or complete elimination of access to boats and docks; the prohibition of boating entirely by the State due to safety concerns, even for drawdowns of as little as one foot; and the potential failure of structures around the lake, including waterfront retaining walls, docks, piers. Such failures would lead to increased siltation of the lakes. App.

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decision to list the mussels or critical habitat. Rather, SFLECC demonstrates that the theory used by FWS/NIPSCO to justify the requested license modification does not and cannot establish that the Oakdale Dam/Lake Freeman are negatively impacting the natural flow of the Tippecanoe River below the Oakdale Dam and therefore are not harming protected mussels.

300; App. 323; App. 330. These impacts, or even their possibility, will reduce the value of property held by SFLECC and its Licensees.

B. Local Government Intervenors

i. White County, Indiana

Lake Shafer and part of Lake Freeman are located in White County and help to establish White County as one of Indiana's leading destinations for tourists. White County and its thousands of residents depend on Lake Freeman and Lake Shafer to help support the local economy and the tax base. In 2013, visitors to White County spent $29.6 million with 73 cents of every tourism dollar staying in White County. Visitor spending in 2013 supported 479 jobs, generating $12.7 million in labor income. Moreover, visitors generated federal, state, and local tax revenue totaling $6.1 million in 2013.

With the threat that county residents and tourists will be unable to access the lake by boat, the number of visitors and seasonal homeowners in White County will dramatically decrease. As a result, businesses reliant on recreation and tourism will be forced to lay off employees or close, and property values of homes and businesses, especially those with frontage on the lakes, will drop and the county will lack the tax revenue to provide some essential services. *See* App. 348 to 363.

ii. Carroll County, Indiana

Part of Lake Freeman is in Carroll County, Indiana, which borders the Tippecanoe River. Carroll County and its residents rely on the continued ability of Lake Freeman and Lake Shafer to provide reliable recreation and related businesses to support the local tax base. Tourism is a primary driver of the local economy.

In 2013, visitors to Carroll County spent $6.0 million with 52 cents of every tourism dollar staying in Carroll County. Visitor spending in 2013 supported 96 jobs, which generated $1.4 million in labor income. Moreover, visitors generated federal, state, and local tax revenue totaling $983,000 in 2013. *See* App. 323 to 347. The loss of one or both of the lakes as a reliable site for tourists to recreate will severely impact the ability of the county to provide vital services to its residents.

iii. City Of Monticello, Indiana

Monticello, Indiana is located between Lake Shafer and Lake Freeman on the Tippecanoe River. The City of Monticello is the main focus of tourism and recreation in White County. As such, the statistics regarding the economic impact of tourism on White County also pertain to the harm to the City. Thus, like White County, the City of Monticello depends on Lake Freeman and Lake Shafer for recreation, tourism, and support of its tax base. During the summer months, there are more than one million visitors and thousands of seasonal residents in the City of Monticello. *See* App. 74 to 76. Of all the tourists to the City of Monticello in 2009, 84% visited Indiana Beach Amusement Resort, 38% participated in water recreation, 26% shopped in the 6th Street corridor of the City, 22% spent time in downtown Monticello, 10% stayed at a bed and breakfast, and 1% visited the historical museum. In 2009, 750,000 tourists visited nearby Indiana Beach Amusement Resort. App. 71 to 73. However, in 2014, when Lake Freeman experienced significant drawdowns for the alleged protection of mussels, Indiana Beach admissions were reduced to approximately 400,000 visitors. Vital municipal services will be cut back or entirely eliminated if even one of the lakes is not available as a reliable site for recreation, which provides much needed revenue to the City.

iv. Jefferson Civil Township

Although not an intervenor, Rex Millhouse, Jefferson Township Trustee for Carroll County, Indiana submitted a comment on behalf of the Township's 2,500 full-time residents and approximately 3,500 seasonal residents explaining that the decline in lake levels, especially during peak summer tourism season, harms the economy and impacts the tax base. Property taxes in the Jefferson Civil Township support the fire department, EMS services, police department, local school system, and initiatives for the financially disadvantaged.

Homeowners and tourists were either unable to go out on their boats or have damaged their boats on stumps exposed by the lower lake levels during recent water releases. The inability to navigate the lake results in summer tourists cancelling vacations and vacation homeowners spending less time in the Township. With fewer visitors to the Township, businesses continue to lay off employees. Lakefront properties have or will lose value, decreasing the property tax base. App. 371 to 374.

C. Licensee NIPSCO

NIPSCO is one of the seven energy distribution companies that are part of NiSource, Inc.[3] NIPSCO has more than 468,000 electric customers across the northern third of Indiana and is the second largest electric distribution company in the state. https://www.nipsco.com/about-us (last visited May 15, 2015). NiSource's distribution companies serve 3.8 million natural gas and electric customers primarily in seven states and, as a publicly traded company, NiSource reported 2014 net operating earnings from continuing operations of more than a half billion

[3] When referring to NIPSCO, SFLECC also includes NiSource where appropriate.

dollars. *See NiSource Reports 2014 Earnings*, *available at* ir.nisource.com/results.cfm (last visited May 15, 2015).

II. Local Academic Researchers

Gary Krutz, a professor specializing in agricultural and biological engineering at nearby Purdue University, submitted his opinions in opposition to NIPSCO's proposed license modification. Like the Protest Coalition's experts in hydrology, Professor Krutz also questions whether FWS has used the best available science, stating that the alleged decrease in mussel populations has not been proven to be related to water flow, but instead may be related to other causes, including viruses, natural population variation cycles, or mussel-eating predators like otters, muskrats, and raccoons. Water flow changes would not stop damage to the mussel populations by these causes. Further, Professor Krutz studied the upstream gages at Ora and Winamac and found that water flows have historically been below 300 cfs (a flow rate that FWS terms "abnormal" and uses to trigger its increased flow from Lake Freeman). In fact, flow rates at these gauges above the dams have been below 300 cfs during at least 49 of the last 70 years and yet the mussel populations have survived through these natural periods of low water flows.

Professor Krutz further observes that lowering the lake level to supply water to the river has already affected non-endangered wildlife and mussel populations and has destroyed seawalls and docks in the lake. He suggests alternative solutions to protect the mussels, such as creating a special habitat area and designing special weirs to stabilize flow over the mussel beds at an ideal rate. App. 368 to 369.

III. A Sample Of Commenters Opposed To NIPSCO's Proposed License Modification

A. Members Of The Indiana State Legislature

Don Lehe, State Representative for Indiana House District 25, and Senator Brandt Hershman, Indiana State Senate, District 7, submitted comments in opposition to NIPSCO's application for amendment of its license, explaining that the lowering of the lake level would negatively affect their constituencies, including the residents on or near Lakes Shafer and Freeman. The legislators explained that, during the drawdown of the lake in August of 2014, tourism in the area declined, leading to the laying off of local workers. Further, docks and piers were inaccessible or damaged, seawalls buckled, allowing silt into the lake, and stumps and shallows made boating dangerous. They further warned that the efforts to protect mussels come at a cost to other fish, mussels, and plants that have been unable to survive after the drawdown in August of 2014. App. 404 to 406.

B. The Greater Monticello Chamber Of Commerce & Visitors Bureau

The Greater Monticello Chamber of Commerce, which represents approximately 200 businesses and hundreds of individuals, opposes NIPSCO's request to amend its license, explaining that the change in lake level causes property damage, harms animals and the habitat, decreases lake accessibility, and hurts local businesses and the local tourism industry. The Chamber of Commerce further explains that the lowering of the lakes has slowed or eliminated boat traffic on the lake and decreased the number of visitors and seasonal homeowners that stay in the area. Due to the inability to access the lakes by boat, tourists have canceled vacations and seasonal homeowners have closed their summer homes early. This decreases the number of people getting gas at the marina pumps, buying groceries at the local stores, shopping at retail

stores, and eating in restaurants. The Chamber of Commerce further notes that owners of homes on the lake are concerned about maintaining their property values because of the lowered lake levels. App. 497 to 499.

C. Carroll County Chamber Of Commerce

The Carroll County Chamber of Commerce, which represents over 200 businesses, submitted a comment in opposition to NIPSCO's application for modification of its license. The Chamber of Commerce explained that tourism accounts for $6.0 million annually and will decrease significantly with the lowering of the lake levels, which renders the lake inaccessible. App. 392.

D. Businesses On And Around The Lakes

i. Indiana Beach Amusement Resort

The Indiana Beach Amusement Resort is the region's top tourist destination, drawing visitors to Lake Freeman and Lake Shafer. Indiana Beach commented that the lowering of lake levels in August of 2014 had already negatively affected property, aquatic animals and habitats, local businesses, and tourism. The further lowering of lake levels would inhibit a number of attractions at Indiana Beach, including the historic boardwalk, the stern paddle wheel boats, and the water skiing show. The impact of lowering the lake, especially during peak operating season, would include a decrease in Indiana Beach's revenue and result in employee lay-offs. App. 393.

ii. Fillinger Marine Service

Fillinger Marine Service opposes NIPSCO's proposed amendment to its license because lowering lake levels would severely curtail affect business and local tourism. During the 23 inch lowering of Lake Freeman in August of 2014, people were unable to use their boats on the lake.

Because Fillinger Marine Service sells and repairs boats and motors, its business significantly decreased, with profit dropping by 32% from 2013 to 2014. Further, due to low sales, Fillinger Marine Service was forced to store unpurchased inventory through the winter at considerable additional cost. Boat sales have decreased significantly in 2015 due to potential customers' stated concerns and uncertainty about the lowered lake levels. Fillinger Marine Service reports that potential customers have held off on purchasing boats because the future level of Lake Freeman is unknown. App. 387.

iii. Tall Timbers Marina Corp.

Tall Timbers Marina Corp., which operates marinas on both Lake Freeman and Lake Shafer, opposes the changes proposed by NIPSCO, commenting that the harms that resulted from the lowering of Lake Freeman in August of 2014 by just 23 inches led to decreased sales, reduced hours, employee lay-offs, and closing of the marina's boat ramp. Tall Timbers Marina further warned that if the proposed changes were made permanent, it would impact the marina's revenue to an even greater extent, which would, in turn, negatively affect its revenues and force the marina to lay off more employees. App. 407 to 410.

iv. White County Association Of Realtors

The White County Association of Realtors also opposes NIPSCO's request to amend their license because the extreme changes in the lake levels have already, and will continue, to decrease the property values of homes around Lakes Freeman and Shafer. The 23 inch lowering of Lake Freeman in August of 2014 rendered the lake inaccessible, and the shorelines of many private properties were temporarily or permanently damaged. Views of the lake from lakefront homes that had previously been of Lake Freeman became, instead, of the muddy lake bottom.

This change decreased the value of property around the lakes and forced homeowners to lower their sale prices. Because realtors rely on commissions, this decrease in property values directly affects their businesses. App. 500 to 501.

E. Concerned Citizens

In addition to the foregoing major political, governmental and business interests aligned in opposition to NIPSCO's proposed license amendment, to date, more than 230 local citizens, many of whom are also members of SFLECC, have submitted comments on the proposed license modification, over 99% of which oppose the proposal for a spectrum of reasons. *See* FERC Docket P-12514. Among the special concerns of these citizens are the harm to generations of family members who come together to enjoy the lakes for their beauty, tranquility and recreation values and the memories that have been formed over the decades in doing so. *See, e.g.*, App. 380; App. 383 to 384; App. 388 to 390.

For instance, five generations of the Koppelmann family have lived on Lake Shafer since John Koppelmann's great-grandparents bought two lots on Lake Shafer in 1941. The Koppelmann family lives year-round on Lake Shafer and spends a majority of their weekends and summers swimming, boating, skiing, and tubing on the lake. Realtor John Koppelmann explains that there are over 3,000 property owners with waterfront homes on Lakes Shafer and Freeman that would be affected by the lowered lake levels. Property values drop when the lake is not accessible, and the local economy is dependent on property taxes, which support local governments and schools. App. 411.

Other commenters have explained that their properties have been damaged by the lowered lake levels, which destabilizes the pressure on the seawalls, eroding the seawall until it

caves in. App. 375 to 377. Repairs of seawalls have cost some homeowners up to $15,000.00. App. 367. Further, boat owners have incurred thousands of dollars in damages from their boatlifts collapsing due to the lack of lake water to support the structures. App. 367; App. 391. These impacts also increase siltation of the lake and make boating hazardous. App. 378 to 379.

Numerous commenters have explained that the lowered lake levels have severely impacted their ability to sell homes on and near the lakes. App. 370; App. 381. A commenter stated that recent assessments show an 8% reduction in property values on Lake Freeman in the last year due to the lowering of the lake in 2014. App. 391. Property owners have decreased the asking prices and still have not received offers on their homes. App. 370. Property owners risk foreclosure if they are unable to maintain mortgage payments before the homes can be sold.

IV. Other Commenters

A. U.S. Fish & Wildlife Service

The U.S. Fish & Wildlife Service ("FWS") is a federal agency within the Department of the Interior tasked with administering the Endangered Species Act ("ESA") with respect to certain species, including the mussels at issue here. *See* 16 U.S.C. § 1533. FWS and NIPSCO jointly prepared the specific procedures in the proposed license modification, including provisions providing for large drawdowns of the water in Lake Freeman. To date, FWS has not intervened in the proceeding but has provided comments in support of the modification that are addressed below.[4]

[4] Oddly, the Department of the Interior, within which FWS is housed, initially submitted a "no comment" filing in this proceeding. App. 382. Subsequently, it withdrew its "no comment" filing. App. 412. It remains unclear whether the Department supports the proposed license modification.

B. Indiana Department Of Natural Resources

The Indiana Department of Natural Resources ("IDNR") submitted a comment that, diplomatically, did not endorse the specific methodological approach adopted in NIPSCO's proposed license amendment. Rather, IDNR states that flows that mimic the natural run-of-river are necessary to protect listed mussels, and that it supports the work of FWS and NIPSCO to develop operating parameters to protect the freshwater mussels downstream of the Oakdale Dam. The question unanswered by IDNR is whether the proposed license amendment is based on the best hydrological science available to achieve those goals. App. 385 to 386.

OVERVIEW OF THE ORIGIN AND OPERATION OF THE PROJECT

I. Origin Of The Norway-Oakdale Hydroelectric Project

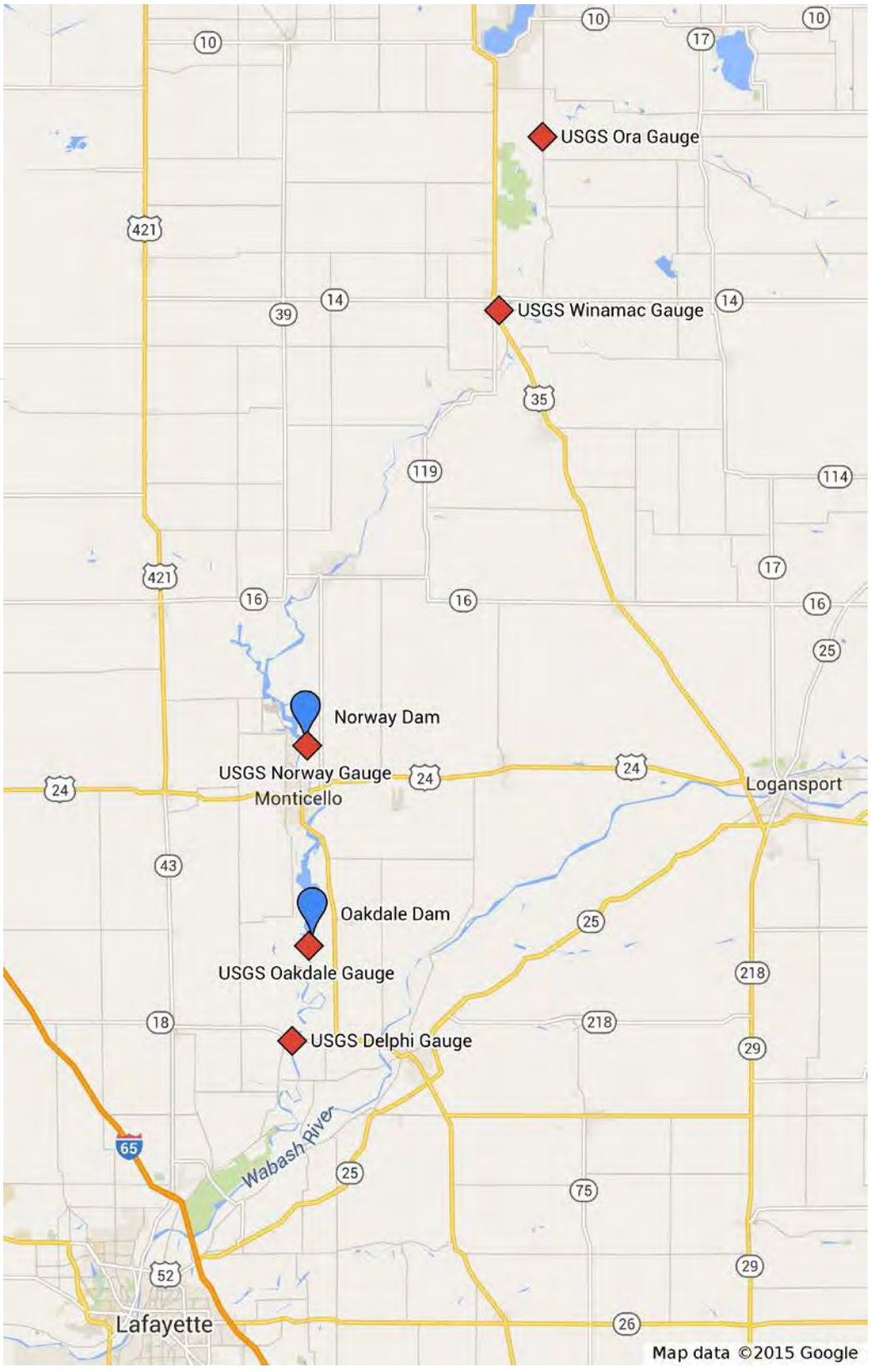
In the early 1920's, a hydroelectric project consisting of two dams was proposed on the Tippecanoe River in Indiana. App. 30. In 1921, the predecessor agency to the Commission found that hydropower developments that were only *proposed* for construction, such as the Project, were not required to be licensed. *See id.* The Norway Dam portion of the Project was completed in 1923 and created Lake Shafer. In 1925, the Oakdale Dam portion of the Project was built approximately 12 miles downriver from the Norway Dam and created Lake Freeman.

A map of the Project area and the location of relevant dams and gauges is set forth in the following page.

Norway-Oakdale Project (P-12514)

Dams and Gauges

- USGS Ora Gauge
- USGS Winamac Gauge
- Norway Dam
- USGS Norway Gauge
- Oakdale Dam
- USGS Oakdale Gauge
- USGS Delphi Gauge



A federal license was not issued for the Project upon its completion or immediately thereafter. Indeed, nearly 60 years later in 1980, FERC issued a Declaratory Order that no license was needed for the Project because there was insufficient evidence that the Tippecanoe River was "navigable" as defined by federal law and, therefore, FERC lacked jurisdiction over the Project. *Northern Indiana Public Service Company*, 121 FERC ¶ 62,009, 64,049 (Oct. 2, 2007). App. 30 to 31.

II. NIPSCO Conveys Project Lands To SFLECC

On or about November 13, 1994, NIPSCO and SFLECC executed an "Agreement to Convey Property" (the "Agreement"), whereby NIPSCO essentially donated, in fee simple absolute, land surrounding both Lake Freeman and Lake Shafer, as well as the land beneath both lakes, to SFLECC. App. 6 to 12. NIPSCO's donation comprised some 4,000 parcels of land (2,000 acres) constituting roughly 84% of the shoreline. App. 19. In 2004, the value of the donated property was estimated to be in excess of $20,000,000. *Id.* NIPSCO did not require SFLECC to pay for the land. App. 10 to 11.

III. Original Licensing Of The Project And Key Provisions Of That License

In September of 2000, FERC determined that the Tippecanoe River is, in fact, navigable and therefore the Project was required to be licensed. *Northern Indiana Power Co.*, 92 FERC ¶ 62,258, 64,378 (2000). App. 13 to 16. An Environmental Assessment for licensing the Project was prepared and found that the Project *was not likely to adversely affect species of mussels* listed under the ESA. App. 24. FWS concurred in this finding on two occasions. *Id.*[5] On

[5] The EA also concluded that operating both Norway and Oakdale Dams to approximate instantaneous run-of-river so as to minimize unnatural downstream fluctuations would protect and enhance fish and aquatic wildlife in the Tippecanoe River, and that stable

October 2, 2007, FERC issued a 30-year Original License for the Project to NIPSCO. App. 20 to 70.[6]

Article 403 of the License requires NIPSCO to operate the Project in an instantaneous "run-of-river" mode such that outflow from the Norway Dam approximates the sum of inflows to Lake Shafer, and outflow from Oakdale Dam approximates the sum of inflows to Lake Freeman. App. 47. As common sense would suggest, once the lake levels were stabilized behind the dams, the outflow from each dam would be equivalent to the natural inflow into each lake and the run-of-river would be maintained.[7]

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lake levels are closely related to operating a run-of-river mode and also provide recreational and habitat benefits. *See* App. 19B.

[6] At the time of licensing the Project, FERC noted that a hydropower license typically would not be issued where a licensee does not own the entire Project area, including the land around the lakes; however, the Commission waived this requirement for NIPSCO. App. 64. *Cf.* Original License at Form L-3, Article 5, requiring NIPSCO to obtain title in fee or the right to use in perpetuity all lands necessary and appropriate for operation of the project. *Id.* Additionally, under the License, NIPSCO was not to voluntarily sell, lease, transfer, abandon or otherwise dispose of project lands. *Id.* Today, NIPSCO only retains an interest in the small fraction of Project lands directly under the dams' structures themselves, lands needed for immediate access to the Project facilities, and lands upon which certain NIPSCO homes are located. *See* App. 32.

Approximately 14% of lands and along the shore remain in the ownership of private landowners. Many of these landowners have filed comments in opposition to the proposed modification.

[7] This basic fact *does not* change during periods of relatively low flow. Expert Report of Robert Criss. Yet, FWS/NIPSCO seek to adopt a license modification that would require *unnaturally* high levels of water be released during periods of naturally occurring low flow.

IV. Evolution Of Flow Definitions From The 2007 Original License To NIPSCO's 2014 Proposed License Amendment

A. "Abnormal River Conditions" As Defined In The Original License

Article 403 of the Original License requires NIPSCO to operate the Norway-Oakdale Project in an run-of-river mode by maintaining the established elevation of both lakes at ± 0.25 feet during normal operation. App. 47.[8] Whenever the turbines are not in operation, NIPSCO is to pass river flow on an "instantaneous" basis. *Id.*

In addition to normal run-of-river operations, the License defines "abnormal river conditions" as flows of 3,000 cubic feet/second ("cfs") or *higher*, or *increases* in river flow of 100 cfs or *greater* at both dams. *Id.* at Article 403 (emphasis added), *citing* Article 405. Under such conditions, water levels are allowed to vary by 0.75 feet above the established elevations, but still may not be reduced below 0.25 feet of the specified elevations. *Id.* *See also* App. 178 (The definition of abnormal river conditions in the Original License addressed only high flow contingencies, like flooding).

B. License Variances Requested By NIPSCO Between 2012 And 2014

In a protracted process spanning the past three years, NIPSCO has requested FERC to grant a series of "temporary" license modifications. These modifications sought a variety of flow rates measured at a variety of locations along the river. These "temporary" modifications have already damaged the Protest Coalition.

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[8] For Lake Shafer, the established elevation is 647.47 feet National Geodetic Vertical Datum ("NGVD"), while the established elevation of Lake Freeman is 612.45 feet NGVD. App. 182.

i. 2012

During a drought in the summer of 2012, FWS informed NIPSCO that the resulting low flows were negatively affecting protected mussels. *See* App. 191. On July 10, 2012, FWS submitted a letter to NIPSCO stating that the "best science available" (which was not identified) indicates that a flow rate of 200 cfs was necessary to benefit the mussels. App. 76A to 76B.[9] Based on this assertion, FWS "recommend[ed] that NIPSCO evaluate their exposure to the prohibitions of the ESA" regarding "take" of protected mussels if flow were to fall below 200 cfs. *Id.*[10]

FWS advised NIPSCO that it had several options for addressing its potential exposure to take, including demonstrating that current releases of water were maintaining the natural run-of-river. *Id.* Although the Commission's License required NIPSCO to operate in run-of-river mode, NIPSCO did not elect to demonstrate that its operations achieved (or could achieve) this result, but instead chose to maintain minimum flows out of the Oakdale Dam at 200 cfs, without

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[9] The drought in 2012 resulted in historic low flows of water including portions of several days in late June when flow "basically ceased." App. 77 to 79. Despite the historic low flows, surveys conducted by both FWS and IDNR located a total of just nine dead mussels of three different protected species, while many more protected mussels were found alive by these surveys. *Id.* Surveys conducted above both dams (and presumably uninfluenced by them) also located dead protected mussels as well as unprotected mussels. *Id.* Plainly, even "historic," naturally occurring low flow can lead to some mussel mortality above and below the dams, while other protected mussels survive even the worst drought.

[10] "Take" is a term of art under the ESA and generally refers to killing or harming a listed species. *See* 15 U.S.C. § 1532(19).

regard to lake levels. As a result, during the summer of 2012 the level of Lake Freeman was reduced below its licensed maximum amount.[11]

Only several weeks later, on August 3, 2012, did NIPSCO formally request that FERC issue a temporary license variance to allow it to release a minimum of 200 cfs apparently as measured at the Oakdale Dam regardless of whether lake levels fell below those specified in the License (NIPSCO was, in fact, already making these releases). App. 79A to 79F. FERC approved NIPSCO's request on October 4, 2012, allowing operations under the temporary variance to continue until December 31, 2012. 141 FERC ¶ 62,012 (Oct. 4, 2012). App. 80 to 84.

On November 28, 2012, NIPSCO requested a one-year extension of the temporary variance that would continue to allow a minimum flow of 200 cfs. App. 85 to 86. FERC granted this extension until December 1, 2013. App. 87 to 91.

ii. 2013

NIPSCO again sought an extension of its temporary variance on December 10, 2013, but this time requested that the minimum flow be more than doubled, from 200 cfs to 450 cfs, apparently as measured at the Oakdale Dam and that this "temporary" variance remain in place for *22 months*. App. 94 to 95. Rather than granting NIPSCO's third request, however, on January 30, 2014, the Commission required NIPSCO to provide answers and additional information in response to nine questions about the basis for its request. App. 96 to 100.

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[11] Had NIPSCO's currently proposed modification been in effect in 2012, it is undisputed that the level of Lake Freeman would have fallen by more than 12 feet. App. 186 to 187. As noted, the average depth of Lake Freeman is just 16 feet and even shallower near the shoreline and in cases where boats are docked and structures have been built.

iii. 2014

NIPSCO filed its responses to FERC's question on April 30, 2014 and acknowledged that any drawdowns could expose stumps and other hazards in the lakes and that boat docks, boatlifts and public and private boat access may be affected resulting in the inability to put boats into or retrieve boats from Lake Freeman. App. 108 to 139. NIPSCO also stated that drawdowns could result in reversal of loading pressure on seawalls, pier structures and marinas, which could result in the failure of structures around Lake Freeman. *Id.* NIPSCO explained to the Commission that its assessment of these adverse impacts was based on a "worst case scenario," *i.e.*, a minimum discharge from Oakdale Dam of 450 cfs. *Id.*[12]

On April 30, 2014, NIPSCO also filed a renewed request to extend its pending December 10, 2013 temporary variance. Despite NIPSCO's claim in a filing made that same day that a release of 450 cfs was the "worst case scenario," NIPSCO sought authority to release a minimum flow from the Oakdale Dam that would result in a flow rates *of at least 500 cfs at the gauge at Delphi*, located some 11 miles downriver from the Oakdale Dam. App. 102 to 107. Precisely what rate of flow would be necessary at Oakdale was unclear.

The confusion was only heightened when, on August 11, 2014, NIPSCO again asked FERC to amend its pending December 10, 2013 temporary variance by allowing a minimum release of 500 cfs as measured by the gauge at the Oakdale Dam, instead of at the Delphi gauge. App. 140 to 142. Then, just four days later, NIPSCO requested that FERC grant it a temporary

[12] NIPSCO's pending proposed modification would require *500 cfs* to be discharged during *normal operations* without respect to the impact on water levels in Lake Freeman, while periods of abnormally low flow could be triggered when flow rates at the Oakdale Dam are "trending downward and approaching" 570 cfs at which point the goal would be to maintain 570 cfs. App. 147. Plainly, the "worst case scenario" is much worse than NIPSCO had predicted.

variance that would permit it to release a minimum flow from the Oakdale Dam, albeit this time in accordance with procedures identified in the Technical Assistance Letter ("TAL").[13] App. 156 to 172. The TAL contained a host of new operating procedures allegedly designed to re-establish the "natural" run of the Tippecanoe River to prevent harm to the mussels. App. 144. One week later, and without public participation, the Commission granted NIPSCO's request to operate under the TAL pending further order of the Commission. 148 FERC ¶ 62,156 (Aug. 22, 2014). App. 173 to 176. For a three-week period, from August 1 to August 22, NIPSCO dropped the level of Lake Freeman by much more than 0.25 feet provided by its License rendering boating hazardous or impossible. During this period, it does not appear that NIPSCO had obtained FERC's approval of a variance and, as such, NIPSCO's action was contrary to its License, exposed the citizenry to harm and inconvenience, and harmed the local economy.

Described graphically, the series of license variances sought by NIPSCO is:

Date of Variance Request	**Rate of Flow Requested**	**Location of Primary Gauge to Measure Flow Rate Requested**
August 3, 2012	200 cfs	Oakdale Dam(?)
November 28, 2012	200 cfs	Oakdale Dam(?)
December 10, 2013	450 cfs	Oakdale Dam(?)
April 30, 2014	500 cfs	Delphi
August 11, 2014	500 cfs	Oakdale Dam
August 15, 2014	Pursuant to TAL	300 cfs at Winamac, 600 cfs at Oakdale Dam or, perhaps, 500 cfs at Delphi*

*Subsequent "clarifications" from FWS indicated that a flow rate of 570 cfs at Oakdale would be necessary. App. 214; App. 216.

[13] The contents of the TAL had allegedly been both requested by NIPSCO and then issued by FWS on August 13, 2014. Subsequently, the TAL was made subject to a series of "clarifications" between FWS and NIPSCO. App. 204 to 208.

This highly volatile and increasingly frenetic decision-making, particularly during the summer of 2014, exposes that FWS/NIPSCO had no concrete hydrological methodology to determine what the rates of flow below the Oakdale Dam would have been in a "natural" condition.

C. The Proposed Re-Definition Of "Abnormal Low Flow" In The Technical Assistance Letter

The ostensible purpose of the TAL was to "create conditions for ESA-listed mussels sufficiently representative of natural run-of-river flow so as to eliminate take of protected mussels or adverse modification of critical habitat. App. 144.[14] In the TAL, FWS/NIPSCO identified two adverse impacts on protected mussels below the Oakdale Dam:

> First, low water may expose mussel habitat to vulnerable conditions, particularly during periods of sustained low precipitation. Second, a hydrograph measured downstream of the Oakdale Dam can be much different than one measured upstream. Specifically, there are swings in amount of flow that are more frequent than the Service would expect under "natural" conditions.

App. 191.[15]

The TAL's claim that low flow is being unnaturally exacerbated by the Oakdale Dam is based solely on the application of the theory of "linear scaling," which the TAL describes as

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[14] On April 30, 2015, FWS designated nearly 1,500 river miles in 12 states as critical habitat for the rabbitsfoot mussel, including approximately 45 miles of the Tippecanoe River. "Designation of Critical Habitat for Neosho Mucket and Rabbitsfoot [Mussel]," 80 Fed. Reg. 24,692, 24,701 (Apr. 30, 2015). App. 413 to 496. FWS designated critical habitat on the Tippecanoe River from Winamac to the beginning of Lake Shafer and from the Oakdale Dam to the confluence of the Tippecanoe River with the Wabash River, *i.e.*, avoiding the lakes and the 12 miles of the Tippecanoe that lies between them. App. 490. Because the TAL indicates that restoration of the natural run of the Tippecanoe River will avoid both take and adverse modification of critical habitat, the Protest Coalition's argument that Oakdale Dam/Lake Freeman are not altering the natural run-of-river, addresses both issues under the ESA.

[15] Of course, that "periods of sustained low precipitation" may result in exposure of mussel habitat would be just as true in any "naturally" running river.

> the approach [FWS] and NIPSCO have used in this TAL to determine an *approximation* of the run-of-the-river during ALF conditions. In sum, [FWS] and NIPSCO used Linear Scaling to predict that in a *comparatively homogenous* watershed (i.e. one without *large* changes in elevation, *large* urban areas, or *major* differences in land cover) flow in sub-watersheds scale to one another linearly. Simply put, *if the above conditions prevail*, a point in a river where the watershed is twice the area, will have twice the flow as a point in the river upstream where the watershed is half the area.

App. 145 (footnote omitted, emphasis added). None of the italicized words are defined by the TAL. The simplistic approach of linear scaling as adopted by FWS/NIPSCO to the complex issue of what the "natural" run-of-river would be during periods of low flow absent the dams is shown by a diagram attached to the TAL. App. 154. Although FWS/NIPSCO claim that linear scaling represents the "best available data and science" (App. 145), they cite just two publications prepared by or with the participation of a single individual. *Id.*[16]

D. NIPSCO's Request For A Permanent Modification To The Licensed Definition Of "Abnormal River Conditions"

FERC's Order of August 22, 2014, granting a temporary variance to operate the Project pursuant to the TAL, also provided that NIPSCO was to file a proposed permanent modification of the Original License by October 2, 2014, and that FERC would use the filing to, among other things,

> *consider alternatives, and review the environmental and recreation effects of any new permanent change to how the project would be operated.* We also note that we will need sufficient information in any request for a permanent change to complete an environmental and recreation impacts analysis.

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[16] As discussed below, two highly respected experts in the field of hydrology demonstrate that these publications, to the extent they have any validity, have no relevance to predicting low flows on the Tippecanoe River and, in any event, were misapplied by FWS/NIPSCO. Expert Reports of Dr. Bernard Engel and Dr. Robert Criss.

App. 175 (emphasis added). As demonstrated herein, the information submitted to FERC are inadequate to support the proposed modification, because, among other things, the hydrology upon which the proposal is based is fundamentally unsound.

On October 2, 2014, NIPSCO requested FERC to modify its Original License by adopting the definition of "abnormal river conditions" in the TAL.[17] *See* App. 189. NIPSCO's proposal acknowledged that the modification would permit drawdowns of more than 12 feet at Lake Freeman (App. 187 to 188) and that:

- Any drawdowns could impact recreation on the lake, including boating, waterskiing, fishing, jet skiing, the marina, private campgrounds and cottages.
- Drawdowns could expose stumps and other hazards, and preclude putting boats into the water or taking them out.
- Drought conditions such as those that occurred in 2012 would result in a drawdown of Lake Freeman by 12.8 feet, which could persist for an extended period of time and result in significant impacts to riparian habitat, shorelines, and associated wildlife within the lake, disrupt fish spawning, and allow invasive species to encroach.[18]

NIPSCO also acknowledged that loading on seawalls, retaining walls and pier structures would be changed by drawdowns such that these structures could be damaged or fail. *Id.* Of course, such failures would result in increased dirt and debris being deposited into the lake to the detriment of the natural environment for both humans and wildlife.

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[17] Under the Original License, NIPSCO was required to develop and implement a mussel enhancement plan. App. 30. This plan was not a consideration in the development of the operational procedures specified in the TAL. App. 364 to 366.

[18] The resulting drops in water from operating under the proposed modification only impact the level of Lake Freeman, while Lake Shafer is unaffected. NIPSCO's proposed modification shows that the impact from drawdowns could be equally shared by the lakes. App. 185. NIPSCO has not provided a reasonable explanation for relying exclusively on Lake Freeman to provide increased flow.

Yet, in the face of this information about the extreme harm to the Protest Coalition that would be authorized by the TAL, NIPSCO simply concluded that the application of linear scaling in the TAL presented the best science available to comply with FWS's direction under the ESA and to limit the impact to "surface elevation levels" at Lake Freeman. App. 189. As demonstrated below, FWS and NIPSCO are incorrect as the theory of linear scaling does not lend *any* support to the result that would be imposed in the proposed modification.

ARGUMENT[19]

Introduction

From the time the Original License was issued in 2007, NIPSCO has been required to operate the Project in a run-of-river mode. Such operations are often a means by which the Commission conserves species. *See, e.g.*, *Alabama Power Co.*, 56 FERC ¶ 61,173, 61,617 (July 31, 1991). Indeed, the typical purpose of run-of-river operations is to "maintain the natural volume and periodicity of stream flow downstream from the Project and minimize reservoir fluctuations in downstream flows that would be detrimental to aquatic resources." *Butler County Conservation Board*, 77 FERC ¶ 62,091, 64,151 (Nov. 18, 1996). Here, *no* valid evidence, let alone the "best available science" as required by the ESA, has been presented to prove that the

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[19] This Protest is premised largely on documents that FWS and IDNR have chosen to provide under FOIA statutes. Both agencies acknowledge that some documents responsive to the FOIA requests have not been provided or have been redacted. Requests by the Protest Coalition to NIPSCO for documents and information have essentially gone unanswered.

To the extent that NIPSCO's proposed modification is not summarily denied by the Commission or withdrawn by NIPSCO, the Protest Coalition respectfully requests that it be allowed to participate in a hearing regarding the proposed modification and its development, including propounding discovery requests.

existence of Oakdale Dam/Lake Freeman is altering the natural run of the Tippecanoe River during periods of low flow. The Commission should deny NIPSCO's proposed modification.

I. The Oakdale Dam/Lake Freeman Are Not Violating The ESA

A. The Issue Before The Commission

The issue before the Commission is whether FWS/NIPSCO have demonstrated, using the best available science, that during periods of low flow the existence of the Oakdale Dam/Lake Freeman is altering the natural run of the lower Tippecanoe River and, as a result, adversely impacting protected mussels.

The resolution of this issue *does not* depend on whether or not *NIPSCO's* generation of electricity is altering the natural run-of-river during periods of low flow to the detriment of the mussels. Indeed, to the extent that NIPSCO's operations are having such an impact, the solution is to require NIPSCO to curtail or cease its operations to prevent harm to the mussels. By doing so, the Commission could avoid the need to increase flow from Lake Freeman as natural river conditions would be maintained. Not only does the ESA not require regulation of Lake Freeman when it is not altering natural conditions, but fundamental fairness also counsels that citizens who own property around the lakes, local governments, businesses and recreationists from around the Midwest, should not be forced to bear the burden of protecting the mussels, when their actions are not harming the species. This is particularly true here where NIPSCO's actions that are potentially causing harm can be mitigated in a modified license.

B. The ESA Authorizes FWS To Regulate Take By A "Person," Not Take That Occurs Naturally

Under the ESA, a species is listed as "endangered" if it is "in danger of extinction throughout all or a significant portion of its range," and is listed as "threatened" if it is "likely to

become an endangered species within the foreseeable future throughout all or a significant portion of its range." 16 U.S.C. §§ 1532(6), (20). With certain exceptions, Section 9 of the ESA prevents "take" of a listed species. *Id.* § 1538(a)(1)(A)(F). In context of the ESA, the term "take" means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any endangered or threatened animal listed under the ESA. 16 U.S.C. § 1532(19).[20]

Unless FWS has issued a permit authorizing take, the ESA prevents "any person" from injuring or killing a listed species. 16 U.S.C. § 1538(a)(1)(B).[21] As FWS acknowledges here, "under 'natural' river conditions . . . low flows would undoubtedly occur during drought conditions and mussels would die." App. 126. Thus, to the extent that the actions of a "person," not forces of nature, are taking a species, FWS has the authority to regulate those actions. This point is recognized, for example in *Alabama v. U.S. Corps of Engineers*, 441 F. Supp. 1123, 1134 (N.D. Ala. 2006), where the court considered an alleged take of listed mussels due to low flow resulting from a protracted drought and held, "Takes that result from acts of nature do not fall within the prohibition of [take under ESA] § 9 and cannot be blamed on the [defendant]."

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[20] Take of a listed species may be allowed, however, where the action causing the take does not have the primary purpose of harming a species. In such circumstances, FWS may authorize take that is "incidental" to the action. *See* 16 U.S.C. § 1539(a) (authorizing incidental take by private parties), § 1536(b)(4) (authorizing incidental take by federal agencies).

[21] A "person" is defined under the ESA as:

> an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State, or of any foreign government; any State, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States.

16 U.S.C. § 1532(13).

Based on this determination, the court rejected plaintiffs' claim that the ESA required more water to be released from a reservoir to protect listed mussels than would naturally occur. *See id.* at 1135 ("The court cannot hold [defendant] responsible for the absence of rain").

The fundamental fact that the ESA applies to take by a person, not natural events, is not in dispute in this proceeding. That is, both FWS and NIPSCO concur that regulation of the Oakdale Dam to provide something other than what would occur naturally is inappropriate under the ESA:

> The critical question is what would be happening in that area [below Oakdale Dam] if the dams were not in place.
>
> The reason for that is, we do not feel it is appropriate to hold [NIPSCO] to discharge rates above what would happen "naturally" – [NIPSCO] doesn't feel it would be appropriate either!

App. 92 to 93. The TAL makes the same point:

> [B]ecause the run-of-the-river operations implemented during ALF conditions replicates what would be expected if the dams and reservoirs were not in place, mussel mortality by definition would not be a take, because it is not caused by [NIPSCO].[22]

App. 145; App. 394 to 403 ("natural conditions can produce low flows that cause mussel mortality that is not take as defined under the ESA"). Indeed, during the "historic" low flows that occurred in 2012, FWS found dead protected mussels below the Oakdale Dam AND above both Oakdale and Norway where the flow of the Tippecanoe River was uninfluenced by the existence of the dams. *See* App. 77 to 79. This clearly indicates that naturally occurring

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[22] The FOIA documents reveal that there was virtually no contact between FWS and USGS in developing the TAL. Rather, FWS suggests that it "coordinated with [USGS] early in the development of the TAL, but began more "focused discussions" over the winter of 2014/2015 . . ." App. 394 to 403. To date, USGS has not provided comments on the proposed License Amendment.

droughts can and do result in natural mortality of mussels in portions of rivers not influenced by the dams.[23] As the law provides, although the FWS certainly may prevent persons from taking actions that harm a listed species, Section 9 of the ESA does not require persons to take actions to benefit listed species over and above what would naturally occur. *Alabama*, 441 F. Supp. at 1134.[24]

C. FERC Has Not Required A Licensee To Provide A Benefit For A Species Beyond What Would Occur Naturally

As stated above, the Protest Coalition is not arguing that NIPSCO's operations have no effect on mussels, but rather that the existence of the Oakdale Dam/Lake Freeman in instantaneous, run-of-river mode are not impacting the natural flow of the river to the detriment of the mussels.

Indeed, the Commission typically issues decisions requiring a licensee to operate in run-of-river mode, *i.e.*, keep lake levels within strict limits, in order to maintain or re-establish *natural* rates of flow for the benefit of species. *E.g.*, *N.E.W. Hydro, Inc. City of Oconto Falls, Wisconsin*, 81 FERC ¶ 61,238, 62,010 (Nov. 20, 1997) ("Run-of-river operation [ ] simulates the natural river flow that fish and other aquatic life are accustomed to"); *Georgia Power Co.*, 88 FERC ¶ 62,314, 64,687 (Sept. 30, 1999) ("We acknowledge, above, the benefits provided by run-of-river operation. Consequently, minimum flows below a project are generally not

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[23] The license proposal and TAL do not discuss that mussel mortality occurs above and below the dams.

[24] A federal court recently held that the provisions of the ESA cannot be extended to purely intrastate activities on private land having only an attenuated effect on interstate commerce. *People for the Ethical Treatment of Property Owners v. U.S. Fish & Wildlife Service*, __ F. Supp. 3d __, 2014 WL 5743294 (Nov. 5, 2014). Although FERC's licensing of electricity may involve interstate commerce, FWS has not shown that the listed mussels below the Oakdale Dam have any effect on interstate commerce.

specified with run-of-river operation"); *Niagara Mohawk Power Corp.*, 58 FERC ¶ 62,114, 63,307 (Feb. 10, 1992) ("A run-of-river mode of operation . . . would minimize fluctuations of the reservoir surface elevation and reduce potential for erosion of the shoreline . . . [and] would result in a negligible loss of power generation while providing for the conservation and development of the existing fishery." Notably, FWS concurred in this mode of operation). *See also Kentucky Utilities Co.*, 59 FERC ¶ 62,186, 63,501 (May 26, 1992) (finding that continuing run-of-river operations at a project that had been operating in run-of-river mode since 1928, "would allow seasonal flow volumes to remain unchanged, and thereby not disrupt fish spawning or reduce spawning success").[25]

The Commission recently addressed a case in which habitat potentially suitable for mussels listed under the ESA existed below a hydroelectric project. In relicensing the Project, the Commission required the Licensee to keep lake levels within strict tolerances to "continue to maintain the current amount of wetted habitat benefiting any endangered mussels that occur in the project area." *Appalachian Power Co.*, 145 FERC ¶ 62,218, at *6 (Dec. 20, 2013). The FWS concurred in this approach. *Id*. Here too, the likelihood exists that the mussels, which have existed below the dams for 90 years, will continue to experience natural variations of flow

[25] *Ne. Hydrodevelopment Corp.*, 44 FERC ¶ 62,224, 63,289-90 (Aug. 31, 1988) is not to the contrary. In that decision, FERC ordered operations that would mimic natural run-of-river conditions by approving minimum flow rates of 34 cfs, as recommended by the Licensee, to approximate the historical median August flow. The Commission explained that the minimum flow requirement was due to the Project's design, which resulted in a "plunge pool" below the dam that dried-out during low flows to the detriment of aquatic resources. Once the licensee eliminated this feature of the Project, however, the minimum flow requirement was removed from the license. *Ne. Hydrodevelopment Corp.*, 64 FERC ¶ 62,020, at *4 (July 9, 1993).

when the lakes are maintained with minimal fluctuation and NIPSCO's operations take place in an instantaneous, run-of-river mode.[26]

Moreover, these opinions certainly do not suggest that third parties, such as the Protest Coalition, should be made to sacrifice their long-standing economic, recreational, safety, aesthetic and ecological interests so that species they are not harming may be provided a benefit beyond what would occur naturally. Yet, this is precisely the result the proposed modification would have on the Protest Coalition, if granted.

II. The Theory Of Linear Scaling As Adopted By FWS/NIPSCO Is Not Valid To Redefine Abnormally Low Flow In The Original License

The sole support for FWS/NISPCO's claim that the existence of the Oakdale Dam/Lake Freeman is altering the flow of the river is the theory of linear scaling. App. 145. Both the ESA and the Federal Power Act, 16 U.S.C. § 791, *et seq.* ("FPA") require agency decisions to be based on substantial, scientifically sound evidence. Here, the result of adopting the theory of linear scaling and its incorporation into the proposed license modification demonstrate a disregard of scientific methodology. In fact, as discussed below, in the opinion of two experts in hydrology, the results obtained in the TAL through the use of theory of linear are wholly invalid.

A. The ESA Requires FWS To Use The Best Available Science

FWS is required to make its determinations under the ESA based on the best available science, and it claims to have done so here by using the theory of linear scaling to predict what low flows would be in the absence of the Oakdale Dam/Lake Freeman. *See* App. 394 to 403 (identifying the theory of linear scaling as applied in the TAL as the "best available science").

[26] At other times, the Commission has required a minimum rate of flow or natural run-of-river flow, whichever *is less*, to offset the impact of peaking operations. *See, e.g.*, *Starmill, Inc.*, 79 FERC ¶ 62,211, 64,499 (June 25, 1977).

Such pronouncements are not sacrosanct, however, and that is especially true where an agency has failed to recognize the qualifications in the research it relies upon that does not support the agency's conclusion. *E.g.*, *Rock Creek Alliance v. U.S. Fish & Wildlife Service*, 390 F. Supp. 2d 993, 1008 (D. Mont. 2005) (rejecting FWS's reliance on a disputed scientific report, which explicitly stated its analysis was not applicable to the small populations addressed in FWS's opinion). Similarly, in *Consolidated Salmonid Cases,* 713 F. Supp. 2d 1116, 1170 (E.D. Cal. 2010), *supplemented* (June 1, 2010), the court found that although an agency's determination that negative flows might jeopardize a listed species had "some" support in the record, the agency had failed to adequately justify, by generally recognized scientific principles, the precise flow prescriptions it sought to impose. *Id*. Rather, the exact restrictions the agency identified, which were also inflicting material harm to humans and the human environment, were not supported by the record but were the product of "guesstimations" and attempts to try to achieve "equity," rendering it impossible to determine whether the agency's proposals were adequately protective, too protective, or not protective enough. The court concluded that it would not give any special consideration to the agency's scientifically unreasonable conclusions. *Id.*[27] Here too, the Commission should not accord any special weight to FWS's positions that are not supported by the best available science.

[27] Questions regarding whether or not take will occur are subject to "ordinary requirements of proximate causation and foreseeability . . ." *Babbitt v. Sweet Home Chapter of Communities for a Greater Oregon*, 515 U.S. 687, 700 n.13 (1995) (majority opinion of Stevens, J. addressing "harm" within definition of take). As discussed, naturally occurring events are not held liable for take under the ESA and, in any event, FWS/NIPSCO have not shown that the Oakdale Dam/Lake Freeman "cause" any take of mussels, let alone do so proximately.

B. The Proposed Modification Is Not Supported By "Substantial Evidence" As Required By The Federal Power Act And Is At Odds With Other Provisions Of That Act

Based on comments that had been provided by IDNR and FWS pursuant to 10(j) of the FPA the 2007 Original License recognizes the possibility of a future modification to the definition of "abnormal river conditions." App. 25. In the Original License, FERC also directed NIPSCO to develop any revision of the definition in consultation with IDNR and FWS and then to submit any comments made by the agencies. App. 49 to 50. Notably, however, the Commission expressly reserved the right to require changes to any proposed definition. *Id.*

As demonstrated above, FWS's decisions under the ESA are to be made pursuant to the best available science. Similarly, comments by FWS and IDNR in the licensing process pursuant FPA Section 10(j) must be consistent with provisions of law (FPA 10(j)(2)), specifically including the FPA itself, and must also satisfy the Commission that they are based on "substantial evidence." *See* FPA Section 313(b).

The FPA does not require FERC to elevate its consideration of fish and wildlife above any other, co-equal consideration, including the protection of recreational opportunities, nor does the ESA expand FERC's authority under the FPA. *See, e.g.*, *Puget Sound Energy, Inc.*, 95 FERC ¶ 61,319, 62,103 (May 31, 2001) ("Under the FPA, we can exercise our reserved authority to reopen a license, based on *substantial evidence*, and can use that authority, if necessary, to help conserve listed species in the context of that license") (emphasis added).

In determining whether to accept or reject recommendations of fish and wildlife agencies under Section 10(j), the Commission first determines whether each recommendation is supported by substantial evidence in the record; if not, the recommendation is inconsistent with the

requirements of Section 313(b) of the FPA that requires Commission orders be supported by substantial evidence. *Allegheny Electric Cooperative*, 48 FERC ¶ 61,363, 62,356 (Sept. 27, 1989) (Wildlife Department's Section 10(j) comments failed to present substantial evidence to overcome staff's determination that risk of harm to species was insubstantial); *Summit Hydropower Inc.*, 88 FERC ¶ 62,298, 64,540 (Sept. 29, 1999).

Furthermore, even if the Commission determines that a recommendation is substantiated, the Commission must also assess whether the recommendation is inconsistent with the FPA or other applicable law. Any such inconsistency is usually the product of the Commission's determination, under the equal consideration/comprehensive development standards of FPA Sections 4(e) and 10(a)(1), that the recommendation conflicts unduly with another project purpose or value. *Summit Hydropower*, 88 FERC at ¶ 64,590.[28]

Third, the Commission must show how the fish and wildlife conditions that are adopted will "adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)" affected by the project. *Id.* Here, FWS's recommendations do not pass the initial requirement of being supported by substantial evidence. Even if they did, the recommendations could also conflict with equal considerations under the

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[28] Section 4(e) of the Federal Power Act provides that:

> in deciding whether to issue a license (or approve an amendment to an existing license), the Commission, in addition to considering the power and development purposes of the project, shall give equal consideration to (1) the purposes of energy conservation, (2) the protection of, mitigation of damage to, and enhancement of fish and wildlife, (3) the protection of recreational opportunities, and (4) the preservation of other aspects of environmental quality.
>
> *Pac. Gas & Elec. Co.*, 58 FERC ¶ 62,093, 63,227 (Jan. 31, 1992) (parenthetical in original).

FPA including recreation, and would not equitably balance both wildlife and other project interests.

C. FWS's Views On Hydrology Are Not Entitled To Deference

FWS does not have, nor has it claimed to have, any expertise in the field of hydrology, let alone the unique aspects of hydrology that are central to this case.[29] This fact is particularly evident in that FWS initially looked outside the agency to an academic (Professor Galster) and another agency (USGS) for advice and support to determine whether Oakdale Dam/Lake Freeman were altering the natural run of the Tippecanoe River. Even so, FWS still ignored and/or misapplied the information it had received from them, as well as the best available science in the field. *See* Expert Reports of Dr. Bernard Engel and Dr. Robert Criss. Accordingly, such unsupported conclusions of an agency, even if made in the name of species' protection, have been rejected. *See, e.g.*, *Consolidated Salmonid Cases*, 713 F. Supp. 2d 1116, 1159-60 (E.D. Cal. 2010) (No deference is owed to "an agency conclusion that runs counter to that of other agencies or individuals with specialized expertise in a particular technical area"); *accord Am. Tunaboat Ass'n v. Baldrige*, 738 F.2d 1013, 1016-17 (9th Cir. 1984) (NMFS's decision under the Marine Mammal Protection Act was not supported by substantial evidence because the agency ignored data that was the product of "many years' effort by trained research personnel"); *see also Sierra Club v. U.S. Army Corps of Eng'rs*, 701 F.2d 1011, 1030 (2d Cir. 1983) ("court may properly be skeptical as to whether . . . conclusions have a substantial basis in fact if the

[29] This is different from questioning FWS's expertise in the realm of biology. Here, in developing the TAL, FWS's goal was to determine what the flow of the lower Tippecanoe River would be in the absence of a dam. This is patently a matter of hydrology, not biology.

responsible agency has apparently ignored the conflicting views of other agencies having pertinent experience[ ]") (internal citations omitted).[30]

Because FWS's attempt to apply the hydrological theory of linear scaling in the TAL was well beyond its area of expertise, its incorporation into NIPSCO's proposed license modification is entitled to no deference by the Commission. *N. Spotted Owl v. Hodel*, 716 F. Supp. 479, 483 (W.D. Wash. 1988) (A tribunal should "reject conclusory assertions of agency 'expertise' where the agency spurns unrebutted expert opinions without itself offering a credible alternative explanation," *citing Am. Tunaboat Ass'n v. Baldrige*, 738 F.2d 1013, 1016 (9th Cir. 1984)). *See also Clairton Sportsmen's Club v. Pennsylvania Tpk. Comm'n*, 882 F. Supp. 455, 464 (W.D. Pa. 1995) (deference is not justified when the agency has no special expertise in an area, *citing Dept. of the Navy v. FLRA*, 840 F.2d 1131, 1134 (3d Cir. 1988), *cert. dismissed*, 488 U.S. 881 (1988)).[31]

III. The Opinions Of Two Experts In The Science Of Hydrology Confirm That FWS/NIPSCO's Determination That The Oakdale Dam/Lake Freeman Are Harming Mussels Is Invalid Under Either Standard

The TAL claims that low flow is being exacerbated by the Oakdale Dam in a way that would not occur naturally, based solely on the theory of "linear scaling," which the TAL describes as:

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[30] As late as January 31, 2014, Scott Pruitt of FWS advised his Field Supervisor, Forest Clark, to consider identifying a hydrologist to work with them. App. 76A to 76B. It does not appear, however, that Mr. Clark did so in subsequently preparing the TAL.

[31] Even if FWS's foray into hydrology could somehow be seen as within its area of expertise (which it is not), no deference is owed to an agency even when acting within its area of expertise where the agency's explanation for its action lacks any coherence. *Fox v. Clinton*, 684 F.3d 67, 75 (D.C. Cir. 2012). Here, FWS's application of linear scaling simply does not support FWS's conclusion.

> the approach [FWS] and NIPSCO have used in this TAL to determine an *approximation* of the run-of-the-river during ALF conditions. In sum, [FWS] and NIPSCO used Linear Scaling to predict that in a *comparatively homogenous* watershed (*i.e.*, one without *large* changes in elevation, *large* urban areas, or *major* differences in land cover) flow in sub-watersheds scale to one another linearly. Simply put, *if the above conditions prevail*, a point in a river where the watershed is twice the area, will have twice the flow as a point in the river upstream where the watershed is half the area.

App. 145 (emphasis added). The results developed by FWS/NIPSCO in the TAL have been incorporated into the pending proposed license modification. The Protest Coalition has requested that two experts in hydrology, Drs. Robert Criss and Bernard Engel, review the TAL and related documents to evaluate whether the use of the theory of linear scaling was valid. The Expert Reports are being filed separately with the Commission.

A. The Conclusions Of Dr. Engel's Expert Report

Dr. Engel's report establishes, by using sound hydrological science, that contrary to the underlying assumptions and conclusions of the TAL:

- Linear scaling does not represent the best science available to determine whether the existence of the Oakdale Dam/Lake Freeman alters the natural flow of the Tippecanoe River during periods of low flow;

- FWS/NIPSCO's attempt to apply linear scaling here is not supported by the research of Professor Galster;

- No studies show that linear scaling is an accurate means of assessing, let alone predicting, low flow rates on a daily basis at a particular point on a river;

- No studies have used linear scaling to assess or predict what "natural" run-of-river rates would be during periods of low flow in the absence of a dam;

- FWS/NIPSCO's underlying and unwarranted assumptions in arriving at the conclusion that the scaling value between the Winamac and Oakdale gauges is 1.9 is wholly unwarranted and renders the TAL little more than the product of "junk" science;

- The best available science for assessing whether the existence of the Oakdale Dam/Lake Freeman may be impacting the natural run-of-river during periods of low flow

demonstrates that evaporation (plus any precipitation that falls) accurately accounts for the negligible effect of Lake Freeman on the flow of the Tippecanoe River, even during periods of protracted drought;

- Because the Oakdale Dam/Lake Freeman are not appreciably altering the natural run-of-river and therefore do not impact the mussels, Professor Engel's view is that the elevations of Lake Freeman required by the current License should not be changed; and

- To the extent that changes in the run-of-river are shown to result from NIPSCO's generation of electricity, those operations should be curtailed or halted before they result in harm to listed mussels.

B. The Conclusions Of Dr. Criss' Expert Report

Dr. Criss' review further concludes that, contrary to the underlying assumptions and conclusions of the TAL, sound hydrological science establishes that:

- Relatively low flow rates of less than 600 cubic feet per second cfs are common on the Tippecanoe River below the Oakdale Dam;

- Such low flows occur naturally and are also common on undammed Midwestern rivers of comparable size;

- Exposure of river mussels is a natural occurrence during periods of drought;

- Losses of water from Lake Shafer and Lake Freeman due to evaporation, seepage and withdrawals are small and, on the whole, the lakes contribute more water to the Tippecanoe River than is lost through evaporation;

- In general, the theory of "linear scaling" is a poor predictor of low flows along rivers, and no available literature suggests it is valid for this purpose;

- The application of linear scaling by NIPSCO and FWS has no predictive value for low flow rates on the Tippecanoe River; and

- The levels of Lakes Shafer and Freeman would drop by no more than a few inches per month if outflows matched actual inflows during extended periods of drought, even with no rainfall.

CONCLUSION

In light of the foregoing, especially including the opinions of two highly qualified experts in hydrology, the Protest Coalition has demonstrated that FWS/NIPSCO's use of the theory of linear scaling does not establish that the Oakdale Dam/Lake Freeman are altering the natural flow of the Tippecanoe River during periods of low flow. In fact, FWS/NIPSCO's application of linear scaling is invalid regardless of whether the Commission reviews it under the ESA's "best available science" standard or the FPA's "substantial evidence" standard.

This is not to say that *NIPSCO's operations* of the dams are not contributing to fluctuations in flow rates during periods of low flow that potentially harm protected mussels. Rather, the Protest Coalition's claim, which is fully supported by the experts, is that the existence of the Oakdale Dam and Lake Freeman are not altering the natural flow of the river below the dam and therefore are not taking protected mussels. For this reason, imposing significant harm on the Protest Coalition, local businesses, communities and thousands of citizens by providing flow from Lake Freeman *over and above* what would occur naturally is required neither by law nor equity.

Accordingly, the Protest Coalition respectfully requests that the Commission:

1. Deny NIPSCO's October 2, 2014, proposed license modification and direct that operations of the dams resume as required under FERC's 2007 Original License, unless and until NIPSCO develops a valid definition of "Abnormal River Conditions" to address periods of low flow, or alternatively;

2. Direct FERC Staff, in reviewing NIPSCO's proposed modification, to develop and recommend alternative operations for the dams. In this way, a modified License can address any fluctuations in flow rates during periods of low flow caused by NIPSCO's operations that may result in take of protected mussels. Such Staff recommendations should include that the levels of the lakes not be lowered below the 0.25 foot maximum in FERC's 2007 Original License, or alternatively;

3. Set this matter for hearing, during which:

    a. The Protest Coalition will be permitted to conduct all relevant discovery, including but not limited to discovery into FWS/NIPSCO's development of the proposed license modification, and the TAL upon which it is premised; and

    b. The Protest Coalition will be permitted to present the testimony of its experts in hydrology to respond to issues that may arise for FERC and/or its Staff; and

4. During the pendency of Requests 1 thru 3 above, rescind the temporary license variance approved by FERC, App. 173 to 176, *Northern Indiana Public Service Company*, 148 FERC ¶ 62,156 (Aug. 22, 2014), and direct that operations of the dams resume as required under FERC's 2007 Original License, unless and until NIPSCO develops a valid definition of "Abnormal River Conditions" to address periods of low flow, or alternatively;

5. During the pendency of Requests 1 thru 3, and because the temporary license variance granted by FERC, App. 173 to 176, *Northern Indiana Public Service Company*, 148 FERC ¶ 62,156 at para. 8 (Aug. 22, 2014), was approved one week after having been requested (without public notice, or review and without FERC having had the opportunity to analyze its effects, which were very detrimental to the Protest Coalition, local businesses, and citizens), allow the Protest Coalition to participate in any and all implementations of the August 22, 2014, temporary variance until such time as this Protest is resolved; and

6. Provide the Protest Coalition with such other and further relief as the Commission deems necessary and appropriate.

Respectfully submitted,

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Dated: May 15, 2015

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C.,
this 15th day of May, 2015.

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