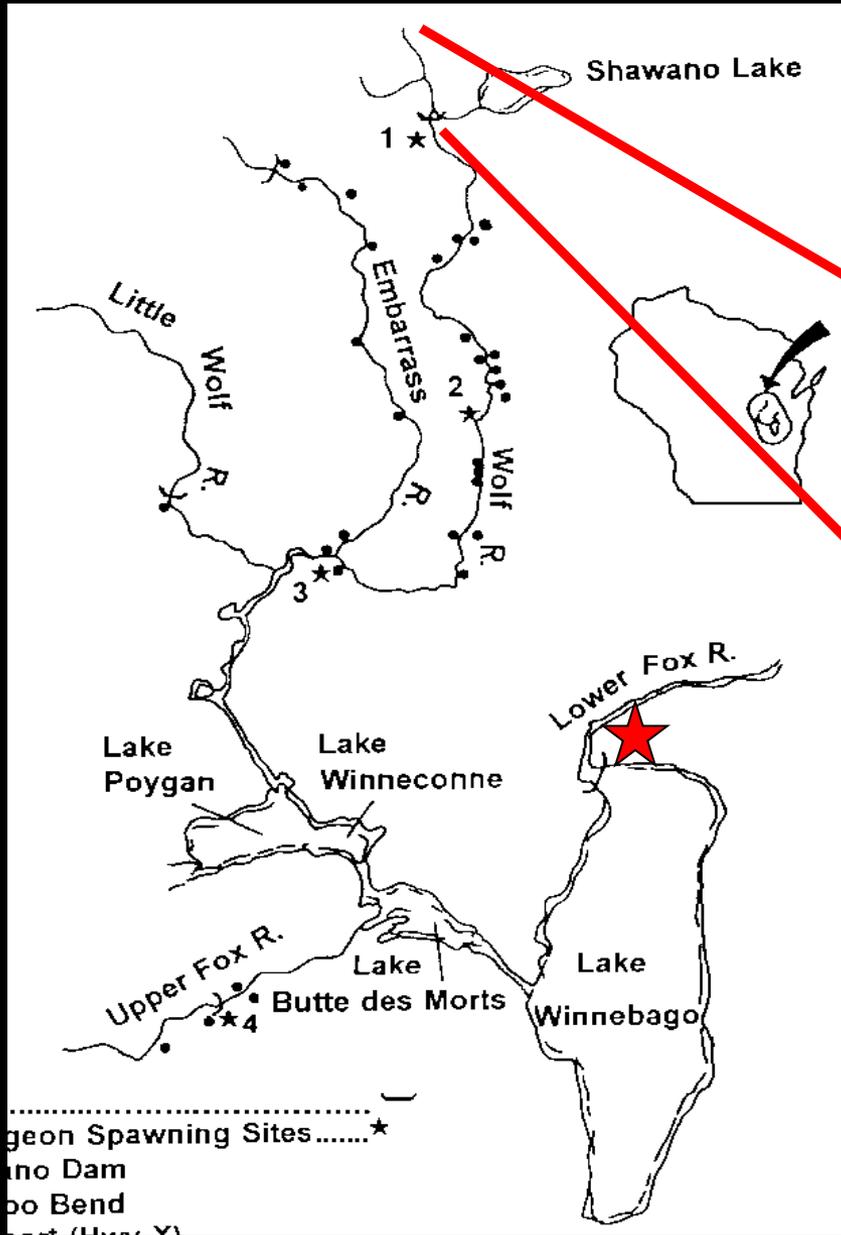


Informational Public Meetings

Balsam Row Project



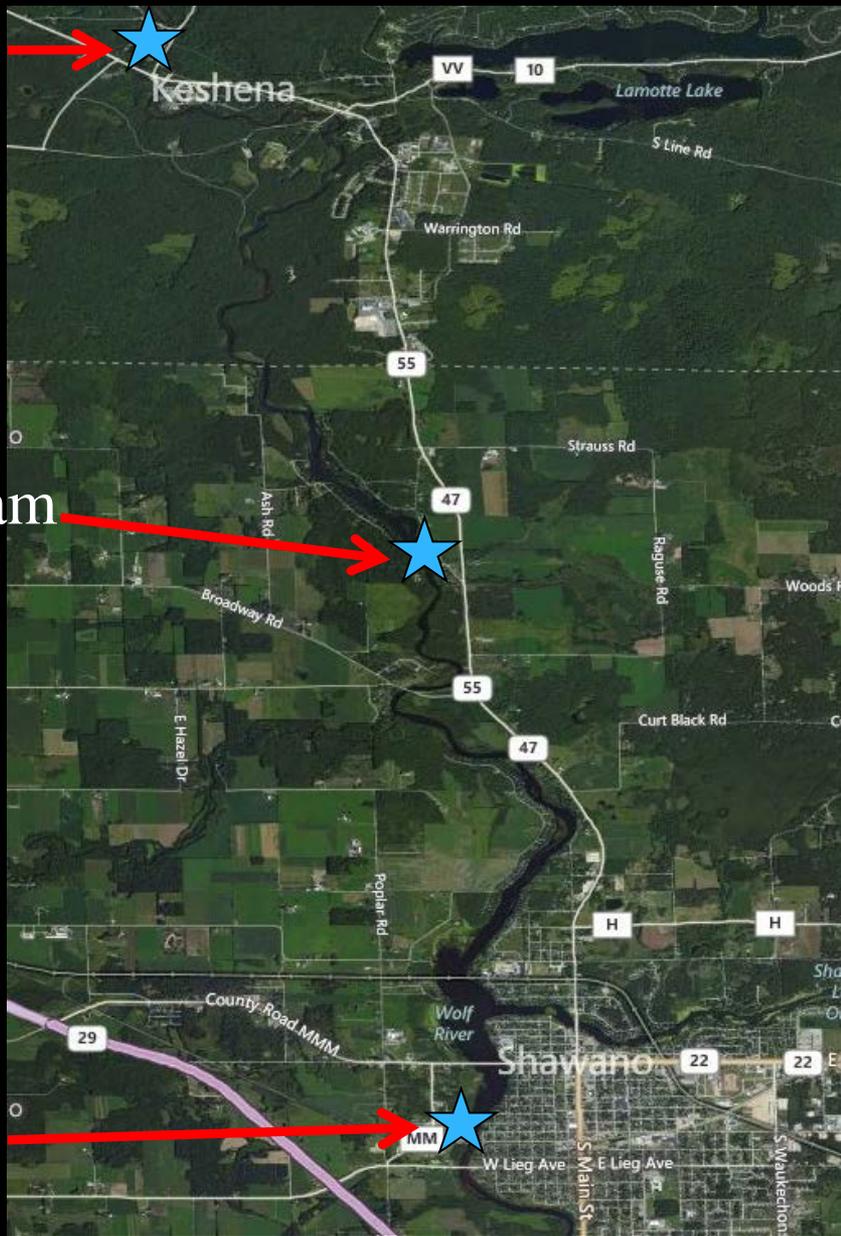
Study Area





Study Area

Keshena Falls



Balsam Row Dam

Shawano Dam

Who's at the table?

- Federal Energy Regulatory Commission
- Bureau of Indian Affairs
- US Fish & Wildlife Service
- Wisconsin Department of Natural Resources
- Menominee Tribe of Wisconsin
- Licensee Holder / Owner
- NGO's such as River Alliance & Sturgeon for Tomorrow





History of License and Settlement

- 1977 - Original License expired
- 1993 – Issuance of Environmental Assessment
- 1997 - New License issued to Wis Power & Light
- 2000 - Plant purchased by Wolf River Hydro, Ltd.
- 2001 - License amendment issued
- 2003 to 2005 -MITW filed in DC Circuit Court
- 2006 - Settlement Agreement signed through court ordered mediation
- 2006 - License amendment issued by FERC



History of the Project

▣ Balsam Row license

- Menominee Indian Tribe of Wisconsin
- Department of Interior – BIA
- United States Fish and Wildlife Service
- Wisconsin DNR

▣ Stakeholders authority and role

- Wisconsin Dept of Natural Resources
- Tribe and Bureau of Indian Affairs
- US Fish and Wildlife Service



Details of the Settlement Agreement

▣ Balsam Row Settlement Agreement

- Menominee Indian Tribe of Wisconsin
- Signed by WRHL, BIA, USFWS and the Tribe
- SA resulted in the 2006 FERC License amendment
- Outlines specific details of all articles in the 2006 license amendment
- Allows the parties another mechanism to carry out activities and are protective to each's interests



Whats in the FERC License?

- Frazil Ice
- Operations
- Debris Mgt
- Water Quality
- Fishery Mgt
- Fishery Enhancement
- Purple Loosestrife Mgt
- Land Use
- Trap & Transport of Sturgeon
- Resource Enhancement Fund
- Gaging Stations
- **Upstream & Downstream Fish Passage**
- Mussel Restoration
- Bald Eagle Mgt

Balsam Row License Requirements

Article 414: Menominee Reservation – Lake Sturgeon Management Plan

- Participate in the May 1995 Menominee Reservation-Lake Sturgeon Management Plan
- The licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis to discuss ongoing trap and transport operations and to assess the continuing need for such operations.
- The licensee shall contribute \$1,500 annually to the Fund established in article 415 of this license, to be used for the purpose of trap and transport of lake sturgeon in accordance with the Plan. The payment each year shall continue until an upstream fish passage facility is installed and operational; OR until the Commission determines, following consultation, that trap and transport is no longer necessary, at which time the licensee's annual \$1,500 contribution for trap and transport of lake sturgeon shall cease.

Early Efforts to Reintroduce Lake Sturgeon

- 1992 – Renewal of sturgeon feast (ceremonial fish)
- First sturgeon released below Keshena Falls in 1995
- 1995-2006: small numbers of fish (10-20) transferred each year



Current Efforts

- 10-year MOU between Wisconsin DNR and Menominee Tribe
- Restore sturgeon spawning to upper Wolf River
- Create resident sturgeon population within the upper Wolf River
- Capture and transfer of >100 sturgeon per year



Keshena Falls

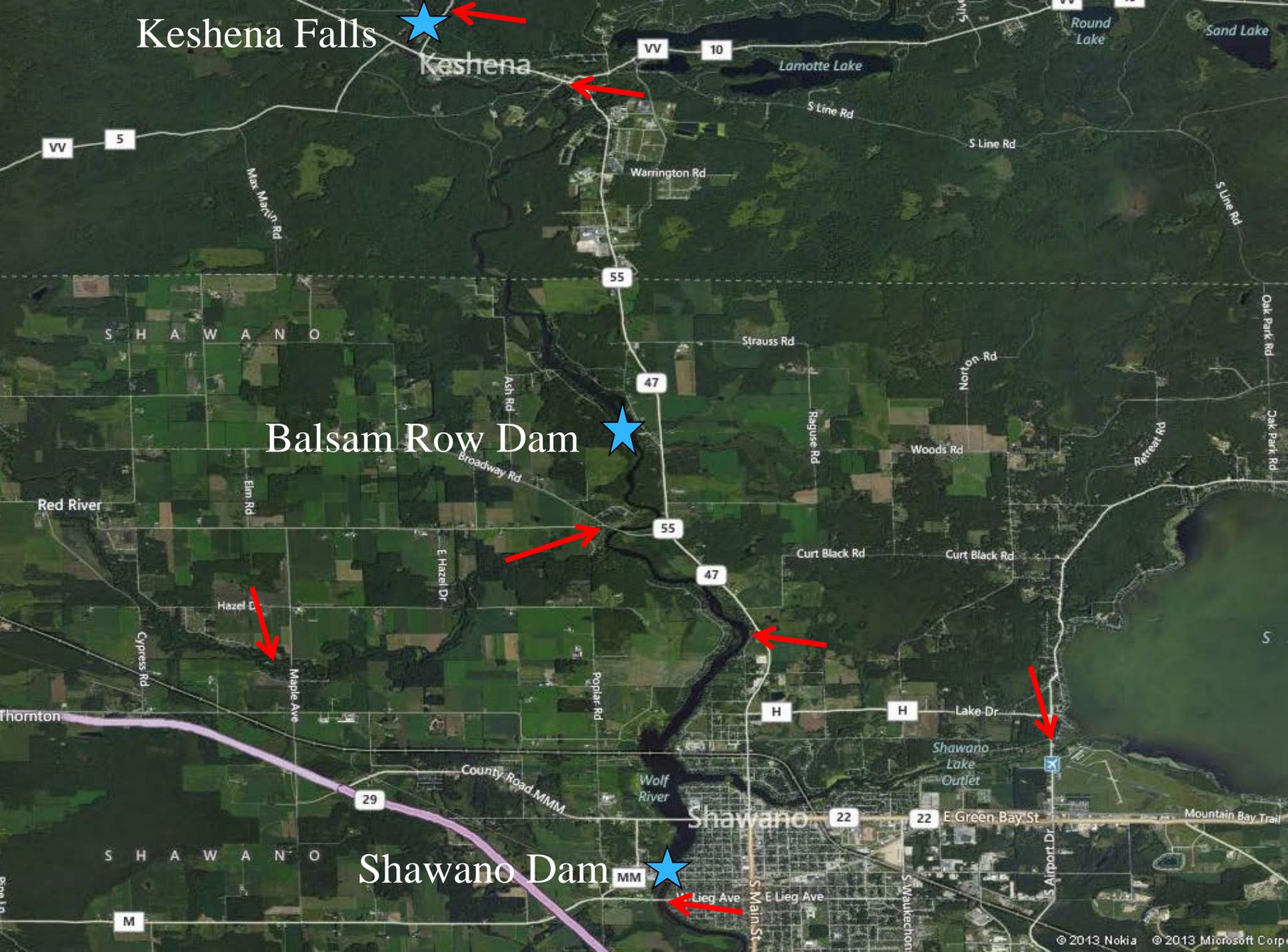


Keshena

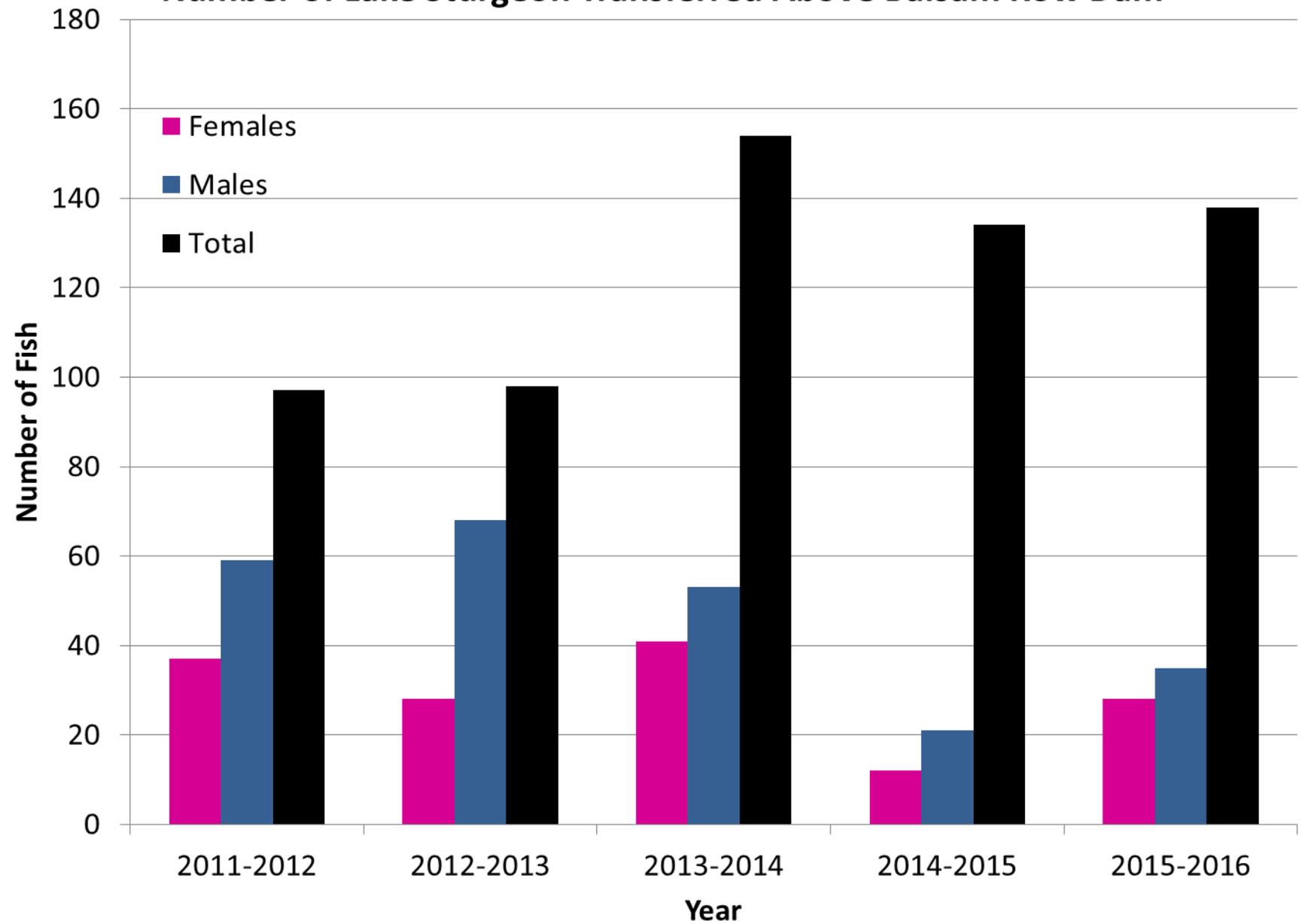
Balsam Row Dam



Shawano Dam

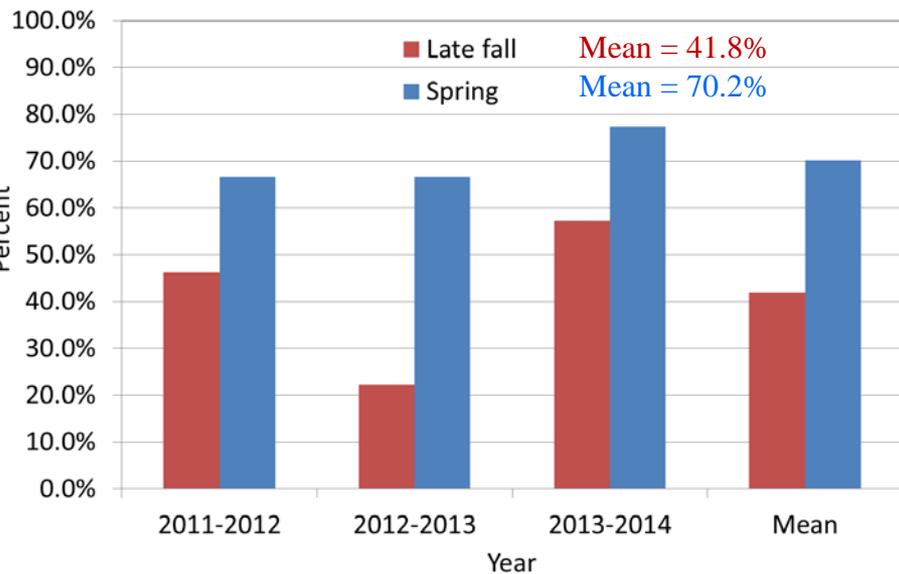


Number of Lake Sturgeon Transferred Above Balsam Row Dam

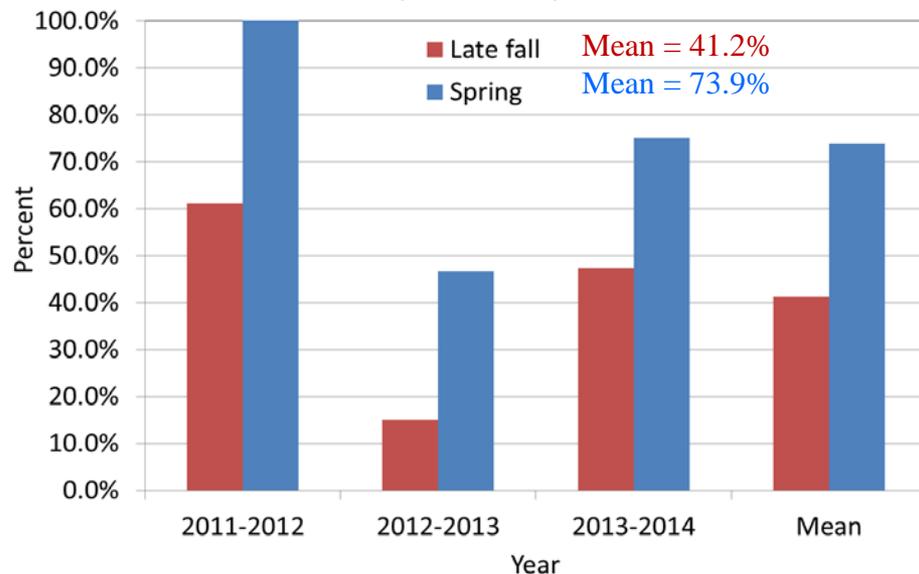




Percent of Females Spawning Above Balsam Row
(2012-2014)

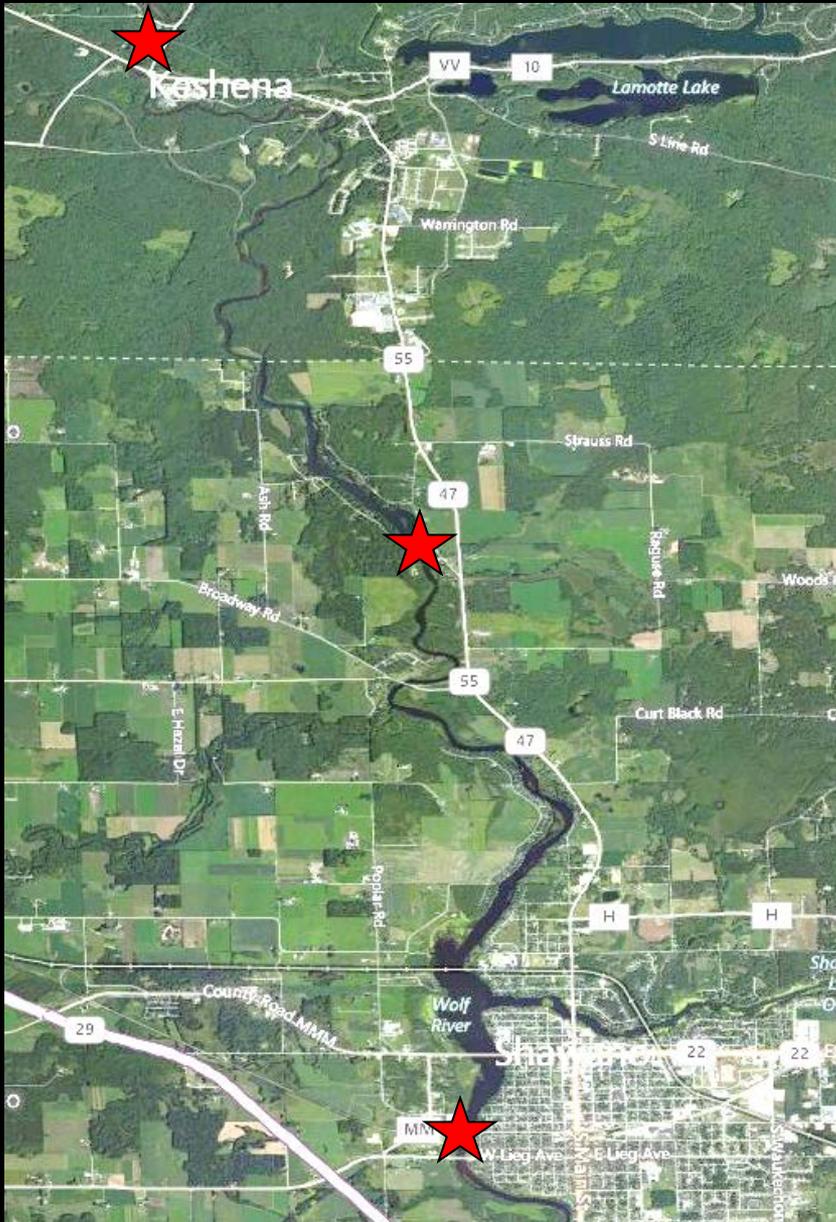


Percent of Males Spawning Above Balsam Row
(2012-2014)





June 2015 Download



Early Fall Transfer

Last Contact	Mean %
Above Balsam Row	12.5
Between Dams	32.8
Winnebago System	53.5
No Contacts	1.2

Late Fall Transfer

Last Contact	Mean %
Above Balsam Row	3.4
Between Dams	6.3
Winnebago System	81.9
No Contacts	8.3

Spring Transfer

Last Contact	Mean %
Above Balsam Row	6.9
Between Dams	18.1
Winnebago System	68.7
No Contacts	6.4

LAKE SURVEY MAP

WOLF CREEK FORD
LAKE
SEC. 24, T33N, R. 10E, S10W
DANE COUNTY

Hunt Fish Camp Wisconsin .Com 2005



ALL T & L symbols are of natural size unless
an asterisk is placed before the
symbol. The symbol
indicates the symbol
shown. Symbols
shown: Symbols
shown: Symbols
shown: Symbols

EQUIPMENT RELATIONS SHOWN MAPS

- | | | | |
|-----------------------|-----------------------|---------------|-----------------------|
| ① Water | ② Shaded Islands | ③ Access | ④ Access with Parking |
| ⑤ Shaded Islands | ⑥ Access | ⑦ Boat Launch | |
| ⑧ Access | ⑨ Access with Parking | | |
| ⑩ Boat Launch | | | |
| ⑪ Shaded Islands | | | |
| ⑫ Access | | | |
| ⑬ Access with Parking | | | |
| ⑭ Boat Launch | | | |
| ⑮ Shaded Islands | | | |
| ⑯ Access | | | |
| ⑰ Access with Parking | | | |
| ⑱ Boat Launch | | | |

Scale: 1" = 2000'
 0 200 400 600 800 1000 1200 1400 1600 1800 2000
 FEET
 0 200 400 600 800 1000 1200 1400 1600 1800 2000
 METERS
 Scale for 1:25,000
 and use for 1:50,000, 1:100,000

WATER AREA

Area	Depth
1000	10
2000	20
3000	30
4000	40
5000	50
6000	60
7000	70
8000	80
9000	90
10000	100

WATER AREA 222 ACRES
 UNDER 2 FT. 12 %
 OVER 2 FT. 5 %
 MAX. DEPTH 10 FEET
 TOTAL VOL. 22,000,000 GALLONS
 VOLUME UNDER 2 FT. 1,000,000 GALLONS
 ISLAND SHORELINE 1000 FT.
 WOOD SHORELINE 1000 FT.

Wolf River Aquatic Resources Management Plan





Balsam Row License Requirements

Article 406: Fishery Management Plan

- The licensee shall cooperate with the WDNR, the FWS, and the Tribe to develop and implement a comprehensive river/fisheries management plan for the Wolf River.
- If, upon completion of the management plan, the licensee, the FWS, the WDNR, and the Tribe identify a need for modifications of project operations and/or structures to accommodate fish passage, the Commission may direct the licensee to file with the Commission an amendment to the license to modify project operations and/or structures.

Assessments for Management Plan

Fisheries Surveys

- Spring netting I (Northern Pike, Walleye, Black Crappie, Yellow Perch)
- Spring electrofishing I (Walleye)
- Spring netting II (Muskellunge)
- Spring electrofishing II (Bass, Panfish)
- Summer netting (Panfish)
- Fall electrofishing (Young of Year Walleye, Muskellunge)

Assessments for Management Plan

Water Resource Surveys

- Non-wadeable electrofishing/IBI (All Species)
- Wadeable electrofishing/IBI (All Species)
- Beach seining (All species)
- Macroinvertebrate and microinvertebrate sampling
- Habitat sampling in wadeable streams
- Water quality parameters
- Freshwater mussels
- AIS monitoring
- Aquatic plants

Draft Management Plan Outline

- Section 1: Background, Location, Purpose
- Section 2: Water Levels, Flows and Water Quality
- Section 3: Fisheries Management Assessment
- Section 4: Aquatic Invasive Species
- Section 5: Mussels
- Section 6: Overall Management Plan to Achieve the Greatest Ecological Benefits for the River

Public Input Schedule

- **October 2016** – Meeting to inform interested publics about FERC-related items at Balsam Row Dam that are occurring
 - Discuss the various sampling that has occurred
 - Data will be used for the development of a Comprehensive Resource Management Plan for Upper Wolf River
- **Oct. '16 – March '17** – Data summary and analyses
- **Spring 2017** – Public meeting to discuss management issues/recommendations for consideration in the resource management plan and finalize the plan.



Upstream Passage Requirements

FERC License Article 417 Upstream Fish Passage Requirements:

- ▣ Starting in 2008, the licensee shall contribute financially to a fund for the purpose of installing an upstream fish passage facility.
- ▣ The licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR to discuss construction plans and designs, the target species for passage, and a schedule for fulfilling this license obligation.
- ▣ Requires approval of the FWS and the WDNR regarding the functional and technical feasibility of the construction plans and designs prior to installing an upstream fish passage facility.
- ▣ The fish passage facility shall be conditioned on design criteria indicating that total reduction in generation from this requirement, when combined with any reduction relating to the downstream fish protection facility requirement contained in article 418, does not exceed more than 5 percent of average annual generation.



Balsam Row License Requirements

Upstream Fish Passage Settlement Agreement Requirements:

- Includes planning, design, engineering, construction and clean up.
- MITW will be responsible for O&M
- Wolf River Hydro has first option to Contract for construction
- Funding terms between WRH and MITW

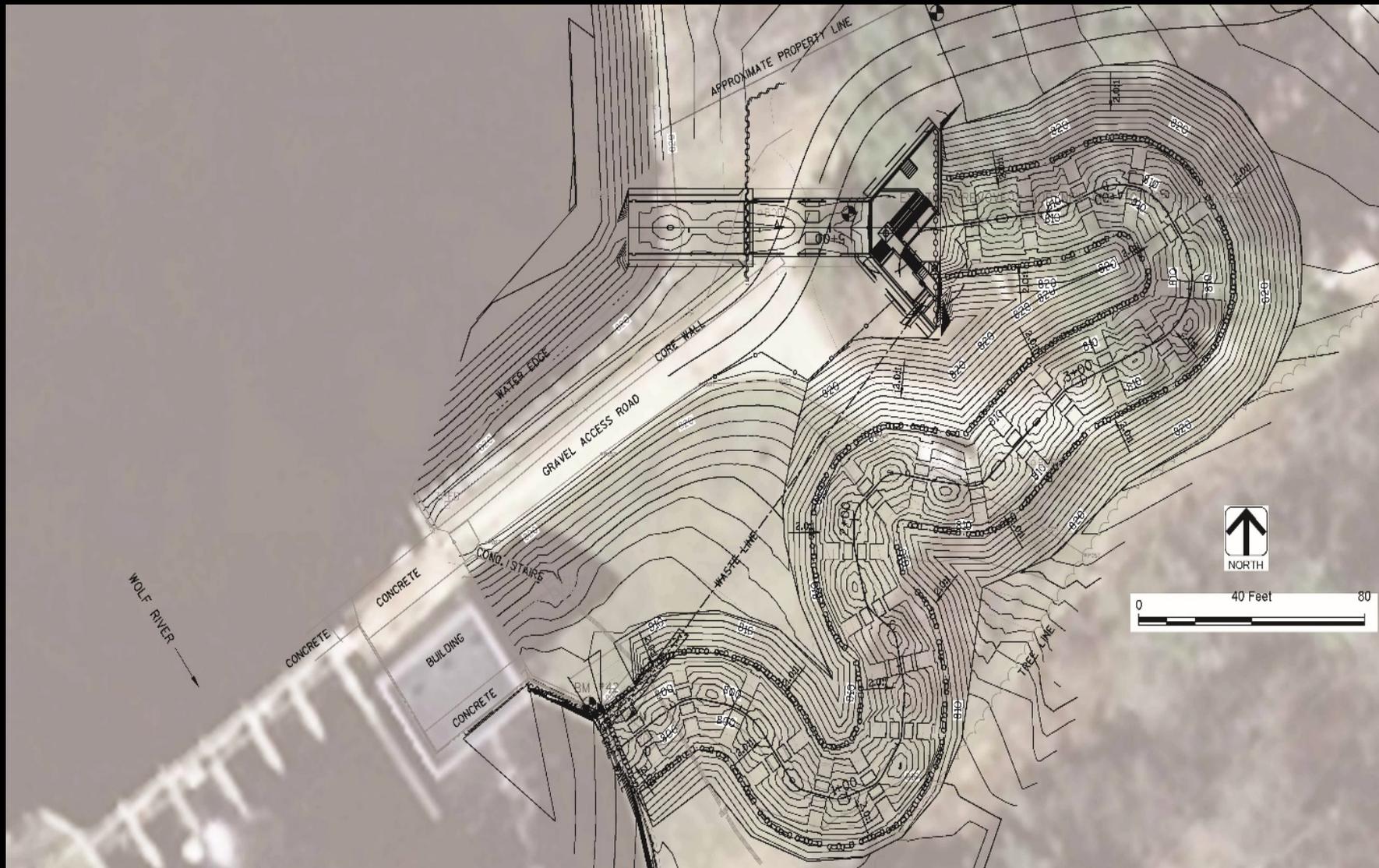


Balsam Row License Requirements

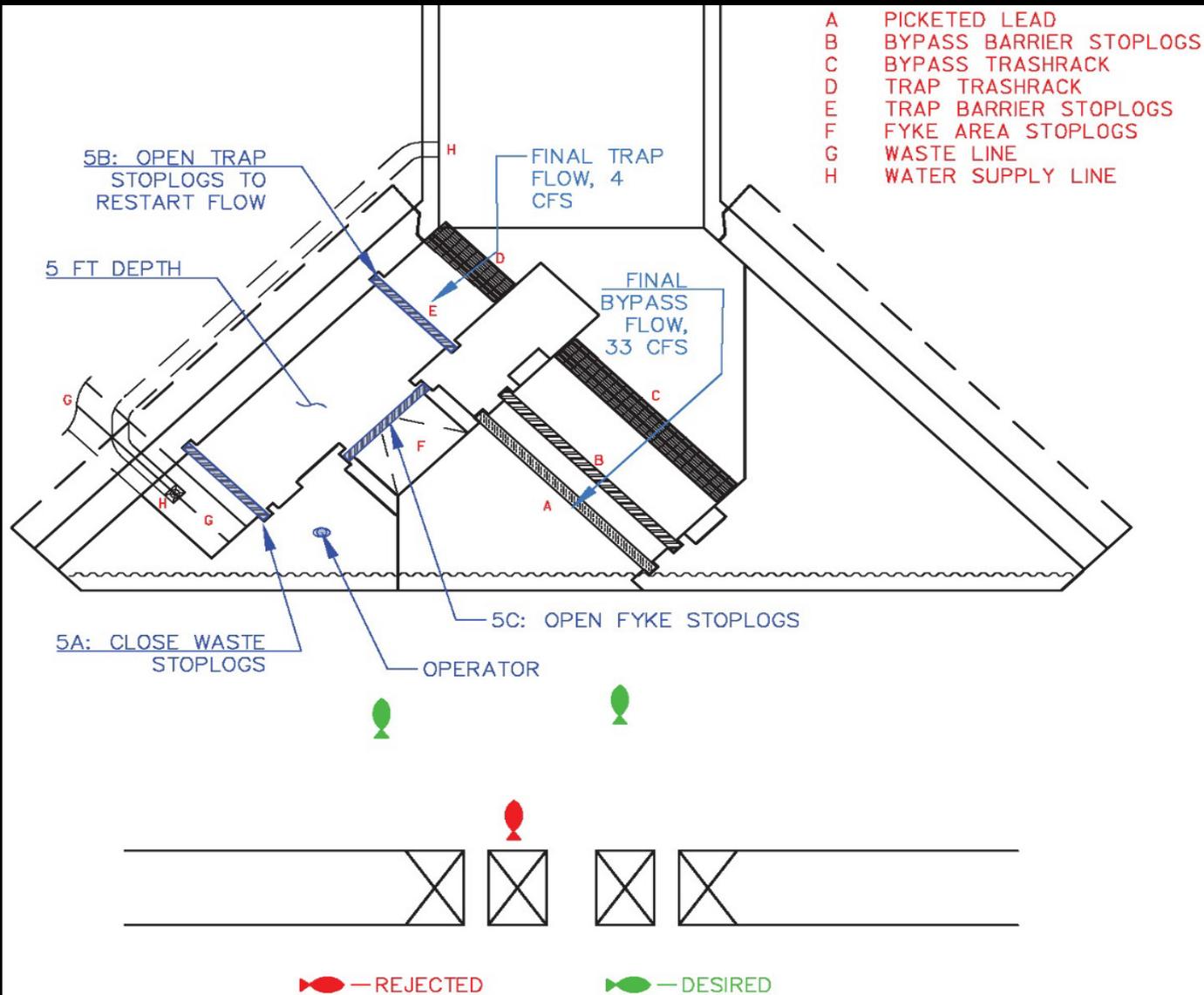
Upstream Fish Passage Settlement Agreement Requirements Continued:

- Status of design – FERC approved on June 30, 2016
- How the design works – Trap and sort facility with option for removal in future (see next slide for design)
- FERC submittal and status of review process – outlined in June 30, 2016 order

Submitted Design



Trap Facility Details



Winter Dam Nature Like Fishway



Questions?

