

## Big Fish Lake Experimental Regulation Review

Joe Stewig | Area Fisheries Manager



#### Outline



- ➤ Lake History
- ➤ Northern Pike Data
- **≻**Timeline
- **≻**Questions



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#### Lake Stats



- ➤ Big Fish Lake
  - ≥558 acres
  - ➤ Avg. Depth 26.4' (Max. 70')
  - ➤ Total P 3 ppb
  - ➤ Chl-a 12 ppb
  - ➤ Secchi 16.5'
- ➤ Impaired for Aquatic Consumption (MPCA 2007)
- ➤ Walleye stocked during odd numbered years (368 lbs.)



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### Lake History

- ➤ 1909 First stocking records
- ➤ 1947 First lake survey
- ➤ 1950 Walleye stocking begins
- ➤ 1975 NPSA purchased (1975-93)
- ➤ 1980 NOP catch 17.5/net
- ➤ 1986 WAE catch 9.8/net
- ➤ 1987 PA purchased and developed

- ➤ 1988 Angling effort (32 hrs./ac)
- ≥2005 NOP Regulations put in place
- ≥2007 Fish consumption advisory
- ≥2010 NOP catch 20.1/net
- ≥ 2015 Most recent fish surveys (Iceout, BLG, Standard Summer)
- ➤ 2018 NOP Regulation Review; New NOP Zone Regulations enacted



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### Sampling History

#### **≻**Pop. Assessments:

▶1947, 1975, 1980, 1986, 1991, 1997, **2005**, 2010, and **2015** 

#### **≻Ice-Out Assessments:**

- **≥2005**, 2010, and **2015**
- > Experimental Regulations (2005):
  - ➤ Northern Pike: 24" 36" protected slot; 3 fish bag limit; 1 fish > 36" allowed in possession.





### Objectives

#### **≻Pike Problem**

- ➤ Competition slows growth
- ➤ Decline in forage base (YEP)
- ➤ Reduces effectiveness of Walleye stocking

#### **≻**Goals of regulation

- ➤ Decrease GN catch to <7/net
- ➤Increase % of NOP > 21 inches to 40%
- ➤ Increase the average size of NOP to 24 inches





#### Outline

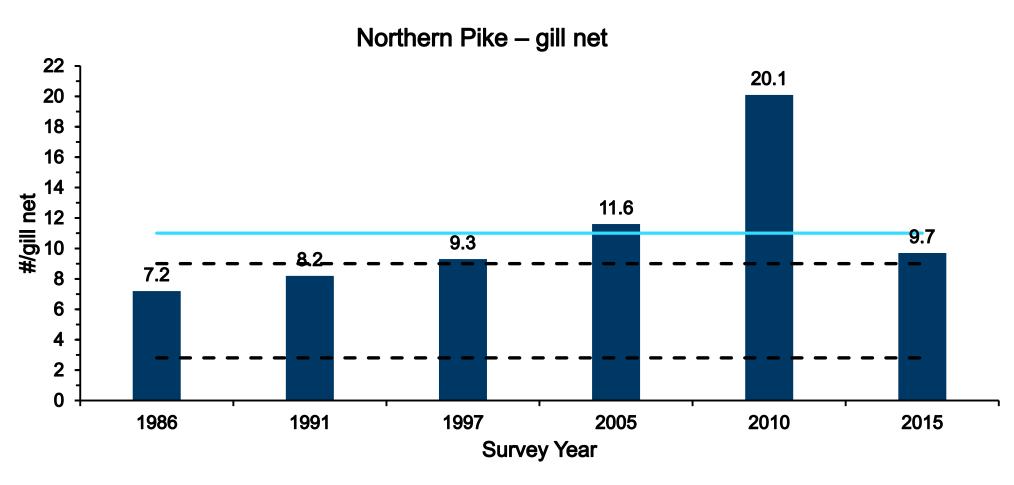


- ► Lake History
- **➤**Northern Pike Data
- >Timeline
- **Questions**





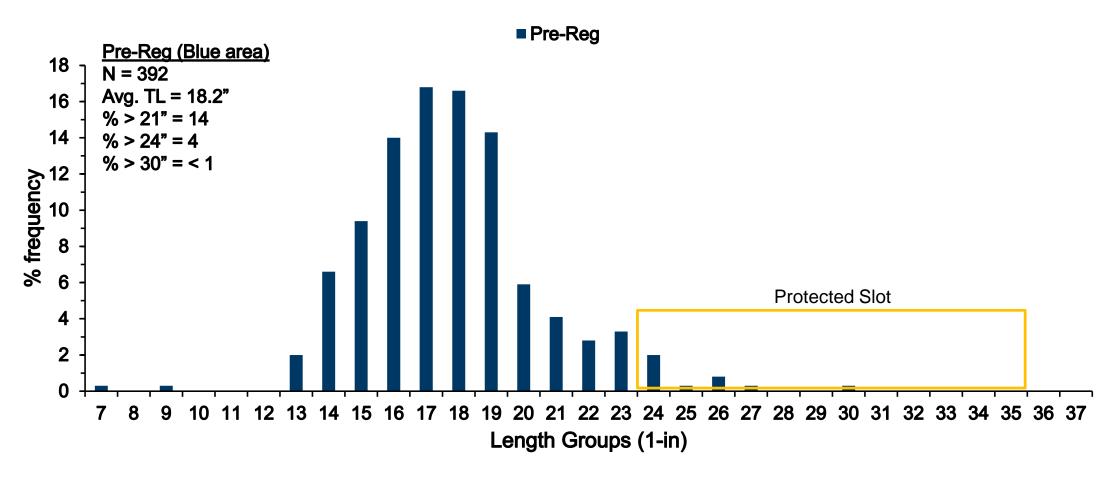
### Northern Pike CPUE







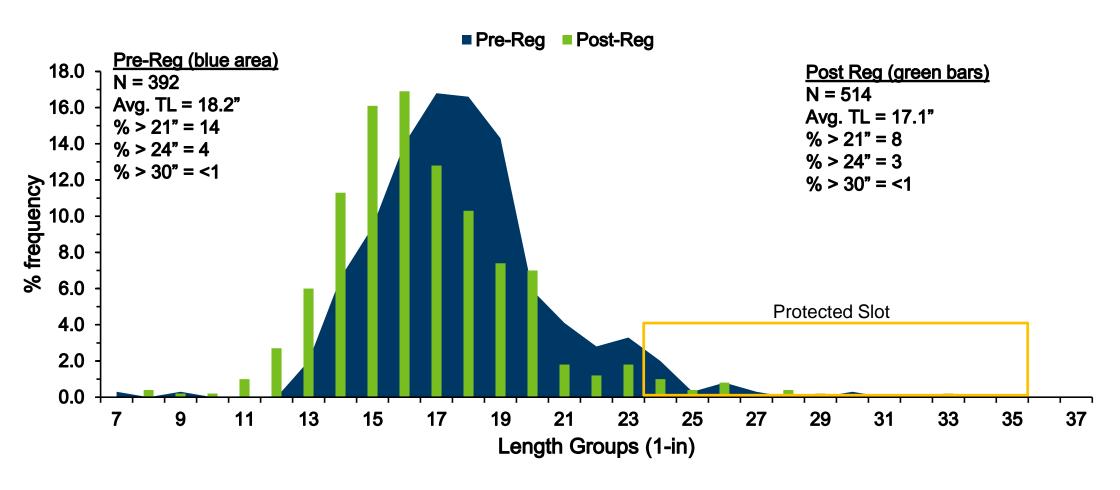
#### Ice-Out L-F





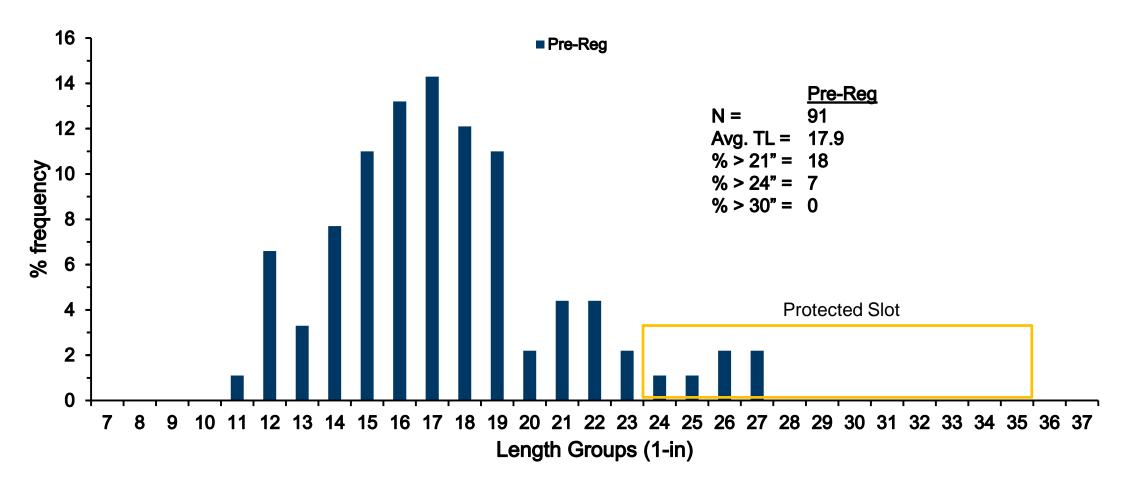


#### Ice-Out L-F



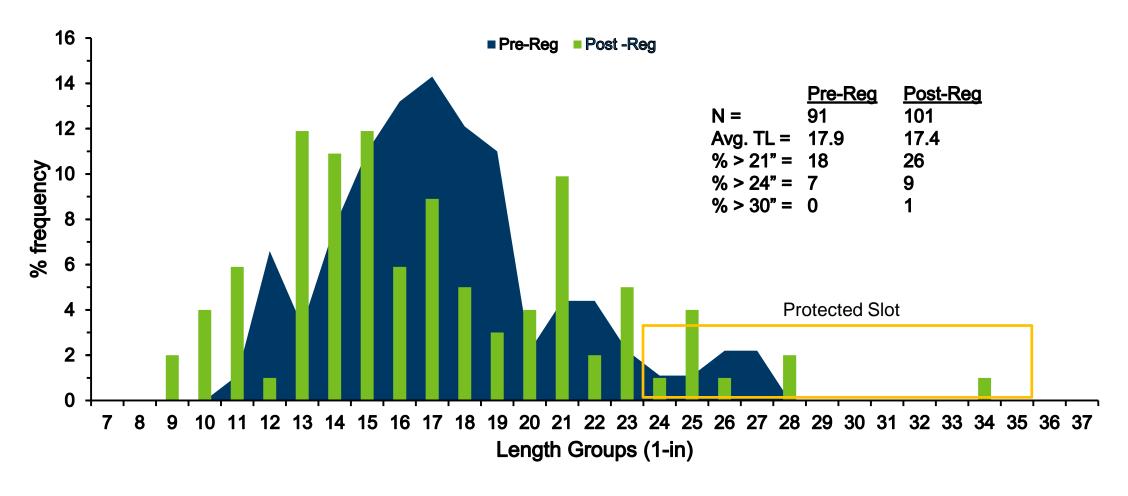


#### Gill Net L-F





#### Gill Net L-F





### Size Structure

	Ice-Out			Gill Net	
	Pre-Reg	Post-Reg		Pre-Reg	Post-Reg
N	392	514	N	91	101
Avg. TL (in)	18.2	17.1	Avg. TL (in)	17.9	17.4
Avg. Wt. (lb.)	1.3	1.1	Avg. Wt. (lb.)	1.3	1.4
% > 21"	14	8	% > 21"	18	26
% > 24"	4	3	% > 24"	7	9
% > 30"	<1	<1	% > 30"	0	1





### Summary

- ➤ Population still high!!!
- ➤GN catch still >7/net
- ➤ Ice-Out Data
  - ➤ Decreased avg. size
  - > Decreased size structure
- ➤ Gill Net Data
  - ➤ Decreased avg. size
  - ➤ Slight increase in % >21"







### Regulation Goals

#### **≻**Goals of Regulation

- → Decrease GN catch to <7/net</p>
- →Increase % of NOP > 21 inches to 40%
- ➤Increase the average size of NOP to 24 inches





### **Options**

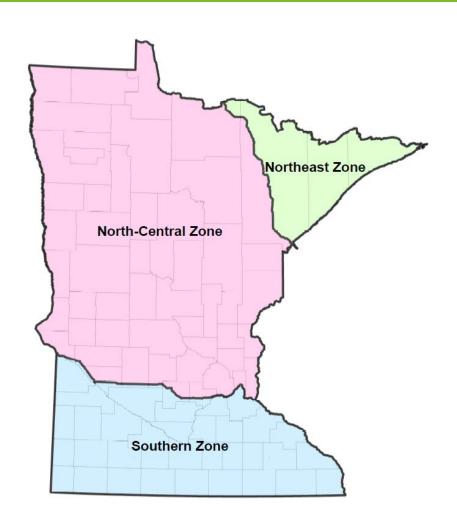
➤ Continue with existing regulations

**≻\*\*Drop current regulation and revert to statewide regulation\*\*** 





### "New" Pike Regs



Zone	Angling Reg	Spearing Reg	
North Central	10 fish bag limit 22-26" PSL 2 fish allowed over 26"	10 fish bag limit 1 fish between 22- 26" and 1 over 26" or 2 over 26"	
Northeast	2 fish bag limit 30-40" PSL 1 fish allowed over 40"	2 fish bag limit 1 fish allowed over 26"	
Southern	2 fish bag limit Min. Size Limit – 24"	2 fish bag limit Min. Size Limit – 24"	

More Info: www.dnr.state.mn.us/pike/index.html



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#### Timeline

- ➤ Public Input Meeting Sept. 26, 2018
- ➤ Decision December 2018
- ➤ Implementation March 1, 2019
- ➤ Continue to monitor the fish population every 5 years







# Questions???

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9/26/2018