

**Walleye Population Objectives – Options
Worksheet**

Worksheet Directions: Review each population objective option. Choose your preference level and make notes on reasons. Be prepared to suggest alternative text or option if opposed.

Gill Net Catch Rates: 7.5 - 8.87 walleye per net or higher.

Note that this long-term average will vary with annual recruitment rates. This range represents the 2nd – 3rd quartile and would characterize a good/above average walleye fishery. Refer to Leech Lake Population Metrics (pp. 8 – 9).

Questions: Should the 3rd quartile be used (8.87 walleye per net)?

- 1. Go for it – I like it

- 2. Go for it – I like it with a few reservations

- 3. Go for it – I'm neutral

- 4. Go for it – I don't like it but I won't stand in the way of the wisdom of the group.

- 5. Opposed – there are problems that need sorting out before proceeding.

Creel Census Metrics (*Note that there are 5 different options for creel census metrics.*)

This objective measures a “product” - catchable size walleyes during the open water season. Not all of the four options described below are necessary for this objective.

Question: Which options are best for an angler metric?

1. All Angler Harvest Rate: 0.10 walleye/hour. Refer to Leech Lake Population Metrics (p. 16).
 - a. **Pro-** This would allow comparison to long term data.
 - b. **Con-** This measure is directly affected (lowered) by any special/experimental regulation. This measures all anglers even if fishing for muskies, bass, and crappies.

1. Go for it – I like it

2. Go for it – I like it with a few reservations

3. Go for it – I’m neutral

4. Go for it – I don’t like it but I won’t stand in the way of the wisdom of the group.

5. Opposed – there are problems that need sorting out before proceeding.

Creel Census Metrics

2. Target Harvest Rate: 0.2 walleye/hour. Refer to Leech Lake Population Metrics (p. 16).
 - a. **Pro-** This is a measure of harvest for anglers actually fishing for walleye. Harvested fish are actually counted and measured by the creel clerk and it doesn't rely on angler recall.
 - b. **Con-** This metric is not as good as other options for historical comparisons. Do we want a harvest rate (harvest goal)?

1. Go for it – I like it

2. Go for it – I like it with a few reservations

3. Go for it – I'm neutral

4. Go for it – I don't like it but I won't stand in the way of the wisdom of the group.

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Creel Census Metrics

3. Target Catch Rate: 0.5 walleye/hour. Refer to Leech Lake Population Metrics (p. 17).
 - a. **Pro** - This is a measure of catch for anglers specifically fishing for walleye. This is a measure and goal that is not harvest orientated but focuses on the catch rate. Regulations influence catch and harvest rates.
 - b. **Con**- This metric relies on angler recall. It includes released fish that might be too small to be acceptable and released fish due to experimental regulations. Reported rates may be inflated due to inaccurate recall; during a hot bite, anglers may not have accurate recall. Creel clerks don't actually see these fish.

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Creel Census Metrics

4. Total Walleye Harvest: 140,000 pounds of walleye per year. Refer to Leech Lake Population Metrics (p. 15).
 - a. **Pro** – The total harvest or “yield” is measurable and can estimate what might be sustainable.
 - b. **Con** – This metric is not comparable to earlier years because of the variable use of special regulations. Special regulations are used to reduce harvest of highly reproductive fish. Do we want a goal based on harvest?

1. Go for it – I like it

2. Go for it – I like it with a few reservations

3. Go for it – I’m neutral

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Creel Census Metrics

5. Proportion of fish in slot (protected slot may change): 30 - 35%. Refer to Leech Lake Population Metrics (p. 18)
 - a. **Pro** – Catch and release protect female fish. Protecting 1 of 3 fish caught seems to be a reasonable approach.
 - b. **Con** -

1. Go for it – I like it

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3. Go for it – I'm neutral

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5. Opposed – there are problems that need sorting out before proceeding.

Biological Performance Indicators: BPIs are not approaching “stress levels.”

Note that these metrics could be used to indicate if “stress” levels are being approached. “Hard” or quantitative objectives may not be desirable. These indicators would serve as “red flags” that would result in additional consideration or evaluation in the subsequent year. Refer to handout.

Key BPIs include:

1. Female length at 50% maturity: threshold 440 mm (17.3 inches)
2. Female age at 50% maturity: threshold 4 years of age
3. Female age diversity: threshold 0.6 (Shannon index to age 15 years)

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5. Opposed – there are problems that need sorting out before proceeding.

Year Class Strength: Average or above average strength year class is produced every three years.

Refer to Leech Lake Population Metrics (p. 5).

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3. Go for it – I'm neutral

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5. Opposed – there are problems that need sorting out before proceeding.