



WAUBETEK
Business Development Corporation
Investing in the Aboriginal Business Spirit
A Community Futures Development Corporation



Getting Started in Aquaculture Information Session

Walleye Culture



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Fundamentals of Walleye Culture



**Basic fundamentals for rearing Walleye and Whitefish in
Aquaculture**

Paul F. Methner

Egg Collection

Correct # adult spawners to collect



To Pool or Not to pool
Families



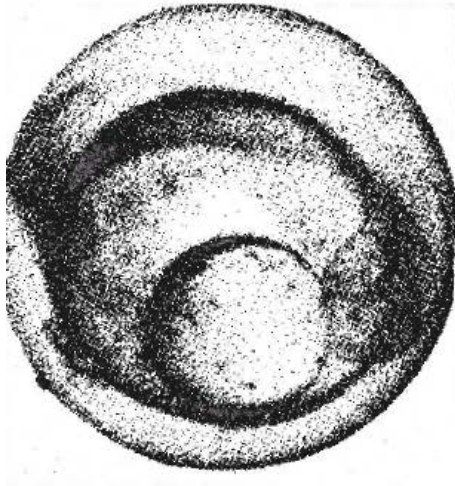
Sampling & Egg Conditioning

Preparing eggs for incubation

Mudding and stripping agents

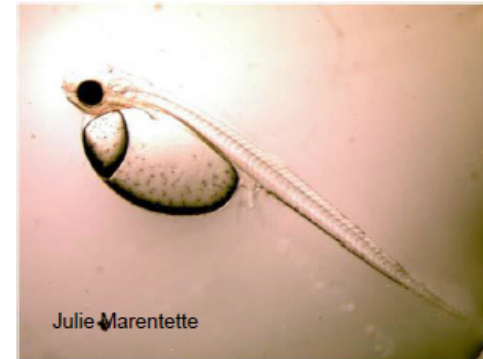


Incubation



Larval Culture

- Size of mosquito larvae at hatch.
- Cannibals!
- Production of fish relies on attention to detail
- Ponds are expensive and production per unit area is relatively low
- Intensive culture of 24-36 hour old walleye fry



Pond Production



Intensive Culture (Flow-through or Recirculation)

Special Challenges

- Temperature
- Clay turbidity
- Managing turbidity
- Managing temperature
- Managing water quality (O_2 and NH_3)
- Managing fungus and pathogens



Fry Culture (24-36 hours old)

Key

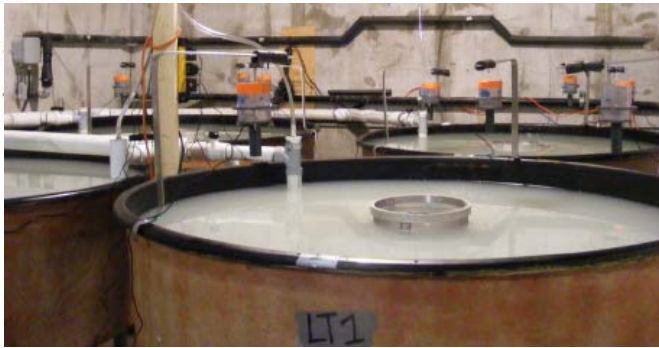
Stronger fish to start on diet

Weak fish have perished



Early & Advanced Rearing

Recirculation



Flow Through

- When temperature profile is adequate



Advanced Fingerlings



Shawanaga First Nation



❖ Shawanaga First Nation's involvement in walleye culture and restoration dates back to the late 1970s

- Habitat improvement & river watch program
- Construction of a hatchery in 1996
- Release approximately 3 to 5 million walleye fry annually



Hatchery Expansion at Shawanaga First Nation

- ❖ The Shawanaga First Nation walleye program is expanding
 - Larger hatchery with recirculating aquaculture system (RAS) for intensive production of advanced fingerlings

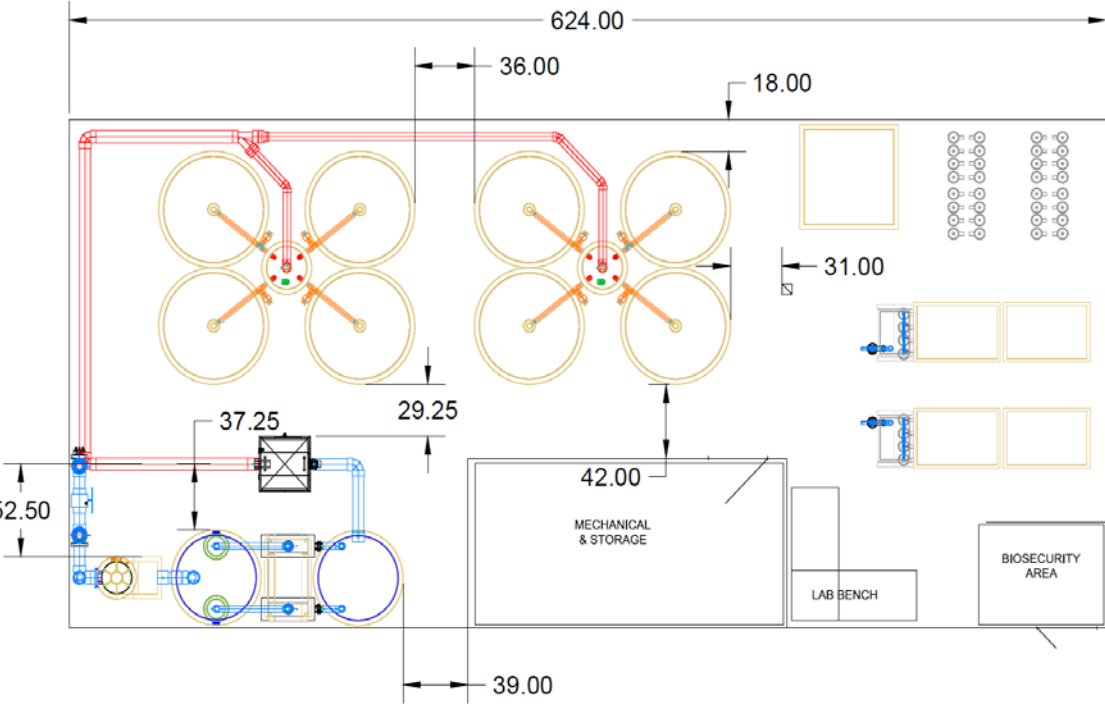


<u>Stage</u>	<u>Size of Fish</u>	<u>No. Fish</u>	<u>Time of Release</u>
Stanza 1	2-day-old fry	8,250,000	May
Stanza 2	1/2-gram spring fingerlings	150,000	early July
Stanza 3	10-gram early fall fingerlings	30,000	early September
Stanza 4	24- to 34-gram late fall fingerlings	23,000	October

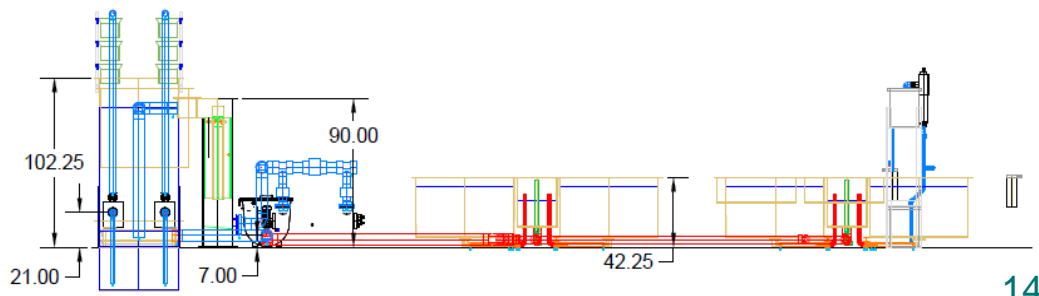
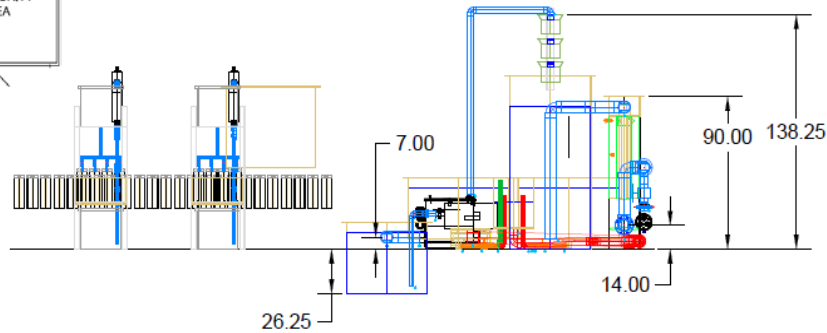
Hatchery Expansion at Shawanaga First Nation



Elevations



Plan View



Mattagami First Nation



- ❖ Constructed a walleye hatchery in 2013 for lake enhancement
- ❖ Approximately 2 million walleye fry released every spring

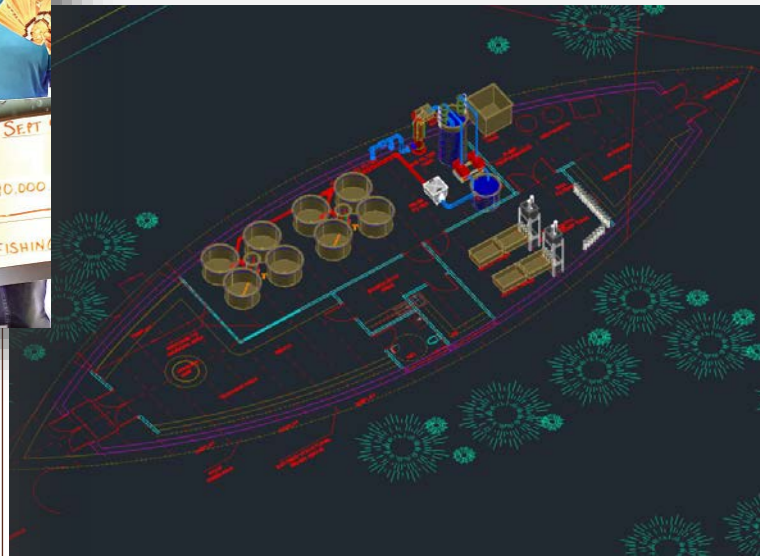


Hatchery Expansion at Mattagami First Nation

- ❖ Planning an extensive waterfront development
- ❖ Mattagami First Nation is on the Northern Ontario Walleye Trail fishing tournament



The image showcases an aerial view of the proposed development within the identified waterfront development project area.



MATTAGAMI FIRST NATION
WATERFRONT DEVELOPMENT MASTER PLAN

FedViv Canada nohfc ONTARIO NORTH KAREN JONES IN ASSOCIATION WITH: studio Architecture INC.



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