



Tilapia Production Systems Evaluation

*Fingerlakes Aquaculture, LLC
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SUMMARY: Fingerlakes Aquaculture, LLC is a commercial tilapia farm that was originally designed to produce 1.2 million pounds of tilapia per year. The farm's existing recirculating production systems were operating inefficiently, yielding lower than intended production. The existing systems and unit processes were evaluated and modifications to system components were recommended and designed to improve fish culture environments and fish growth.

CHALLENGE: The farm was experiencing lower than expected production in its recirculating systems, which was attributable to poor water quality from inefficient treatment processes.

SOLUTION: Existing conditions and operational characteristics of the recirculating systems were evaluated and the primary limitations to increased production were identified. Problems identified included poor control of solids, carbon dioxide, and total ammonia nitrogen in the culture systems. Modifications to the existing systems were proposed to address the problems that compromised water quality and fish growth.

RESULTS: Recommended modifications were implemented, which resulted in improved water quality and increased fish production. Proposed system modifications included design drawings, cost estimates, and expected operational and production improvements.

SERVICES PROVIDED:

- Engineering Evaluation
- Field Testing
- Conceptual Design
- Detail Design