

New Hampton Hatchery Modernization Informational Session



Dianne Timmins Inland Fisheries Division Chief

2/27/2024

Stocking History and Need

- ▶ Poor Water Chemistry-Ca Deficient
- ▶ Overfishing- (NE 1600's)
- ▶ 1700's Discussions
- ▶ NHFGD established 1865-our Mission
- ▶ Angling-Recreation and Economics
- ▶ Improve Water Quality



A Fair Angler
H. S. Watson
1907

Hatchery 101

Rectangular
Raceways



Circular Tank





Intake pipe



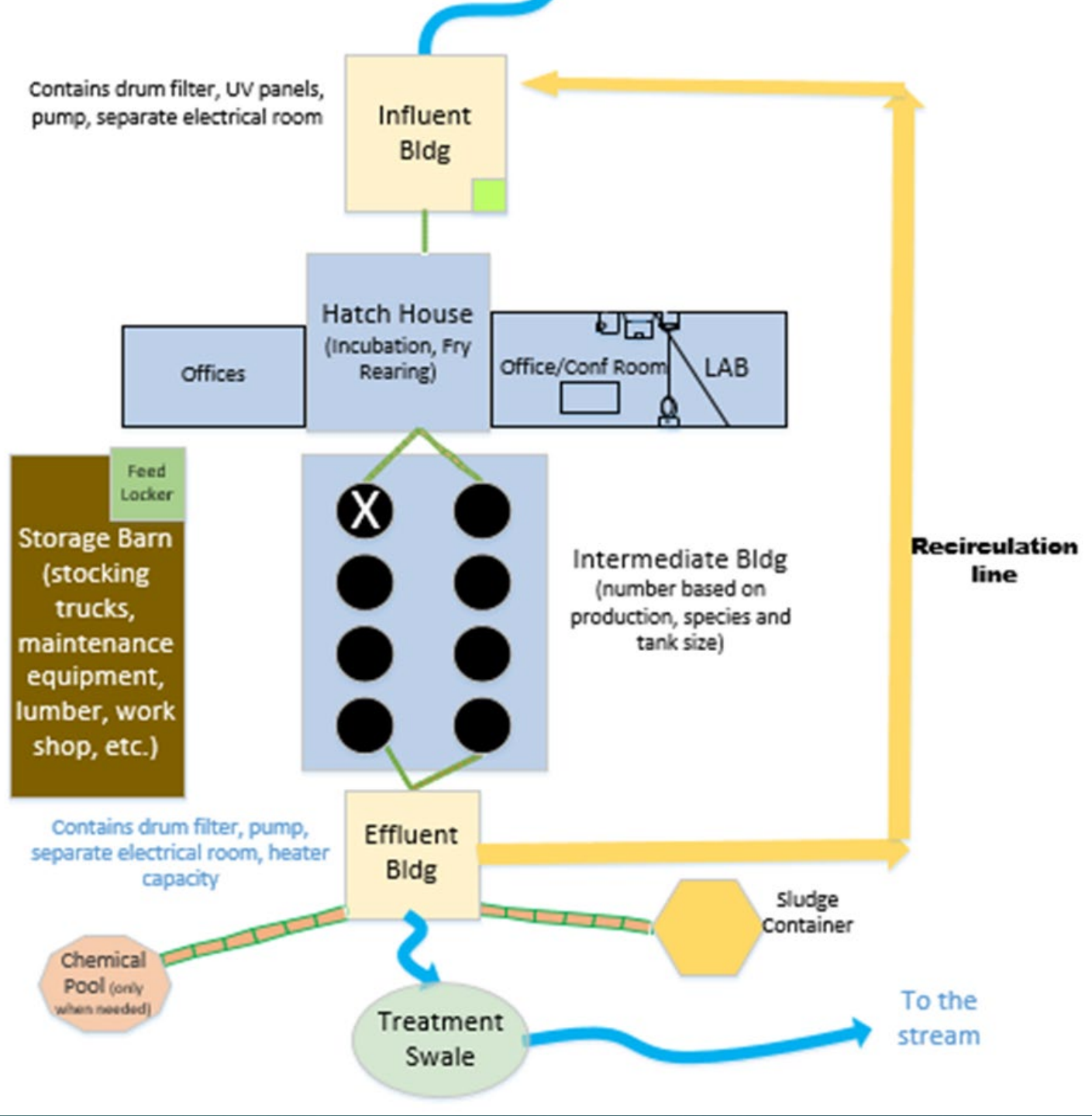
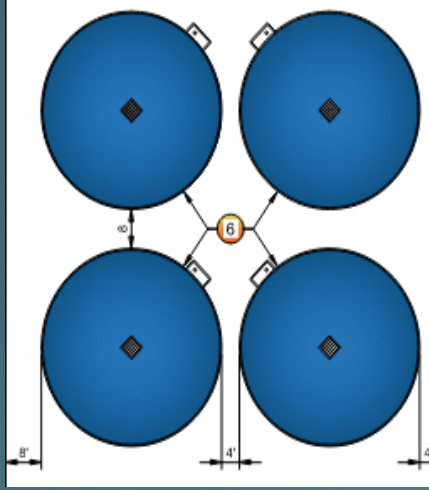
Phosphorus

- ▶ Fish Food and Waste
- ▶ Impacted by Predation
- ▶ Increases lead to Algal Blooms (cyano)
- ▶ Human illness
- ▶ Important to Manage

Proposed Summary of Production by Facility (*impaired waters)

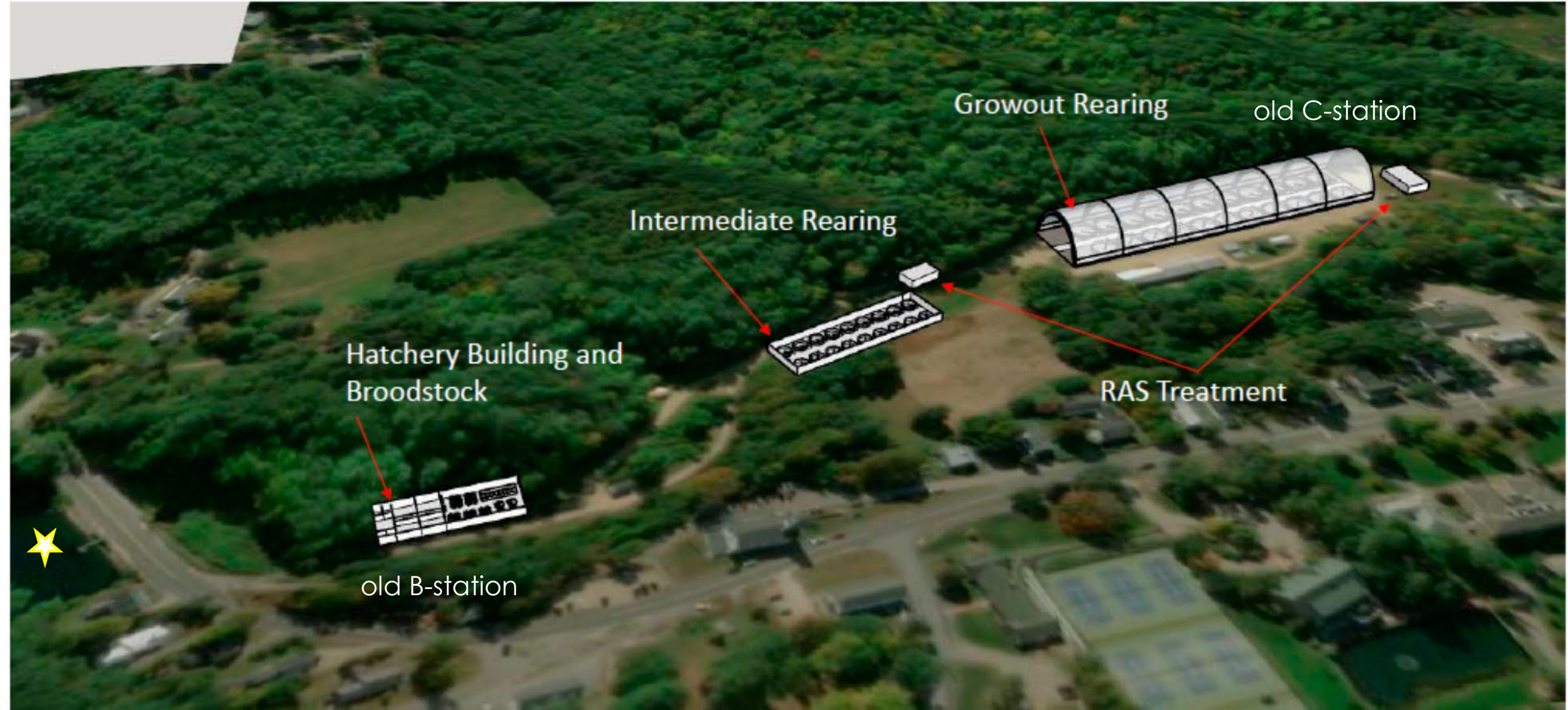
Hatchery	Existing lbs (2024)	Proposed lbs (*2025 & 2026+)
Powder Mill*	124,097	30,000
Berlin*	74,336	74,336
New Hampton	71,792	150,000
Milford	68,124	68,124
Twin	20,698	23,000
Warren	26,742	26,742
Total	385,789	372,202

Flow Regime in RAS Facility



New Hampton 150,000 lb Concept

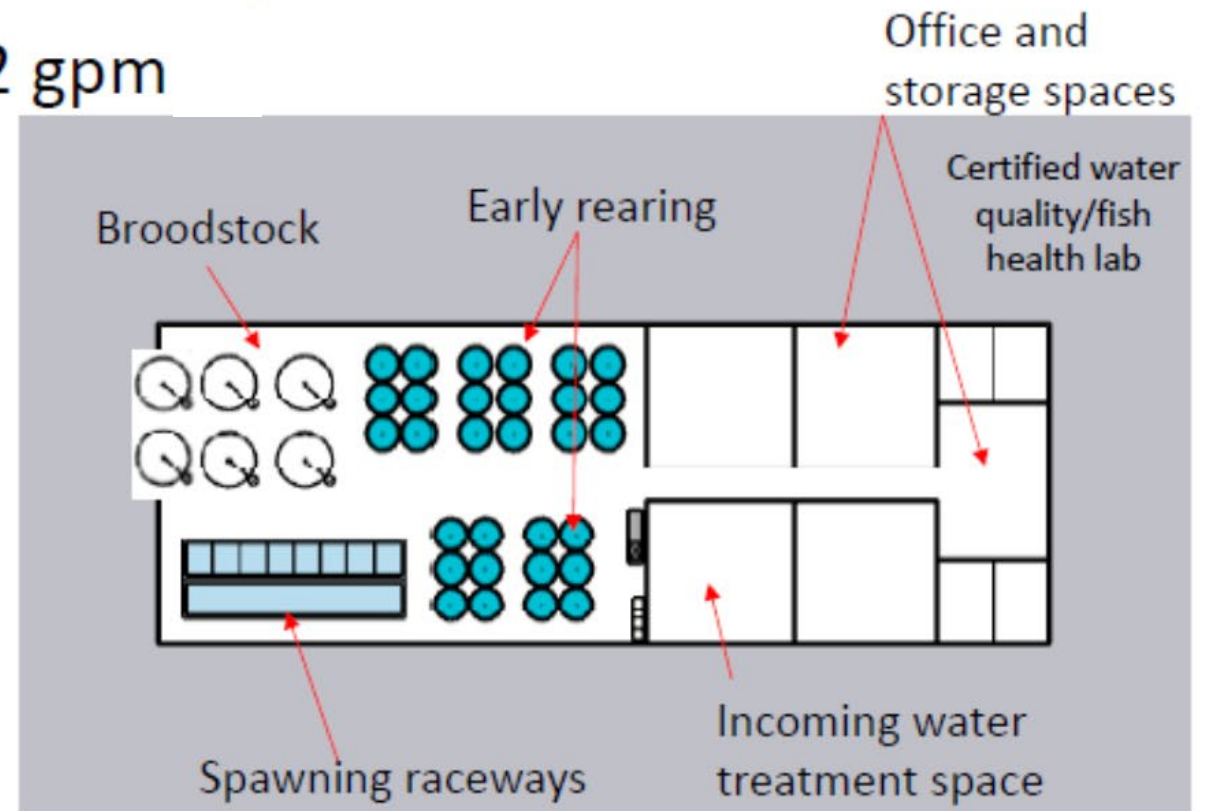
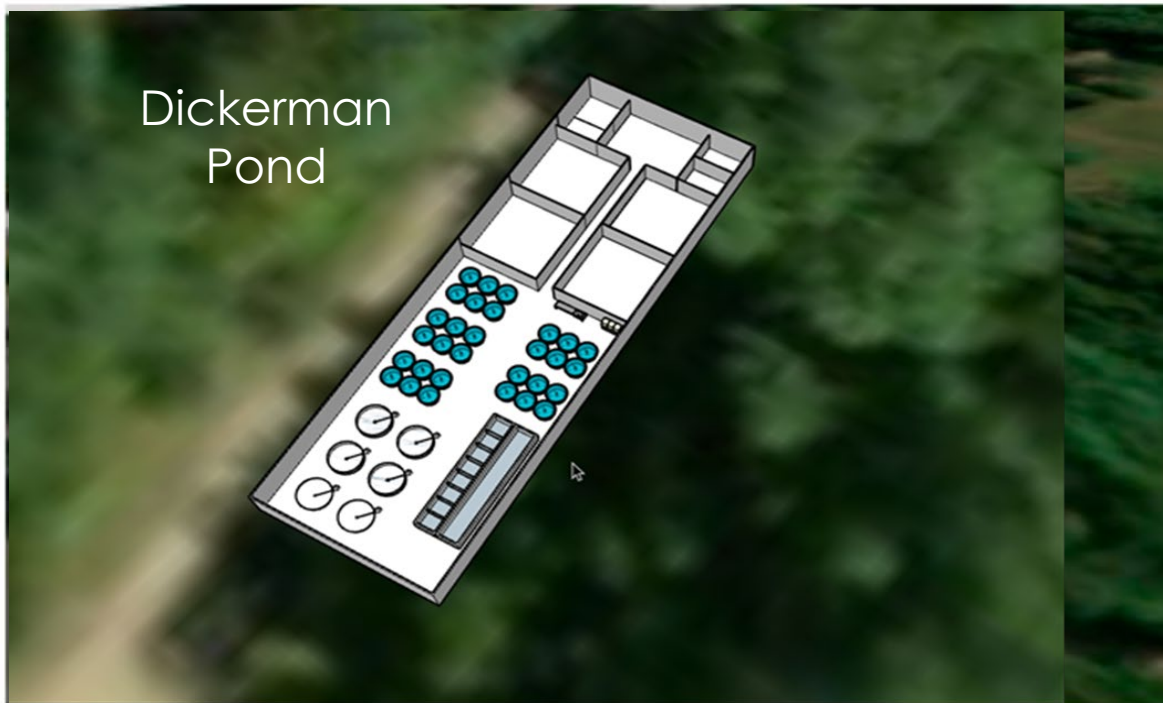
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Hatchery Building Conceptual Layout

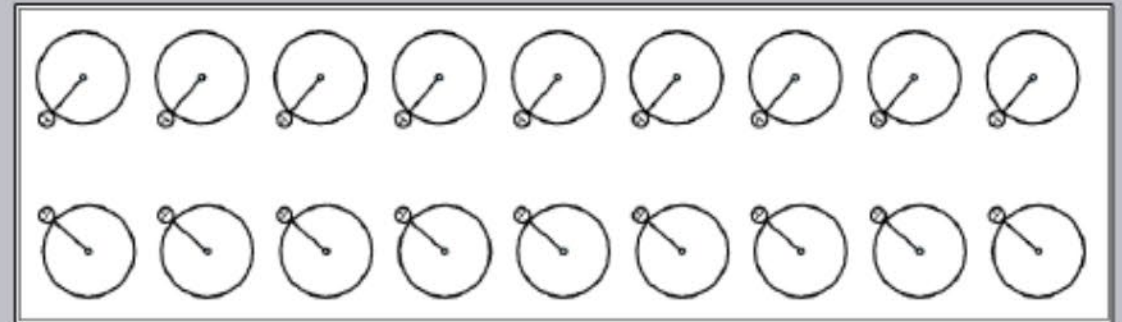
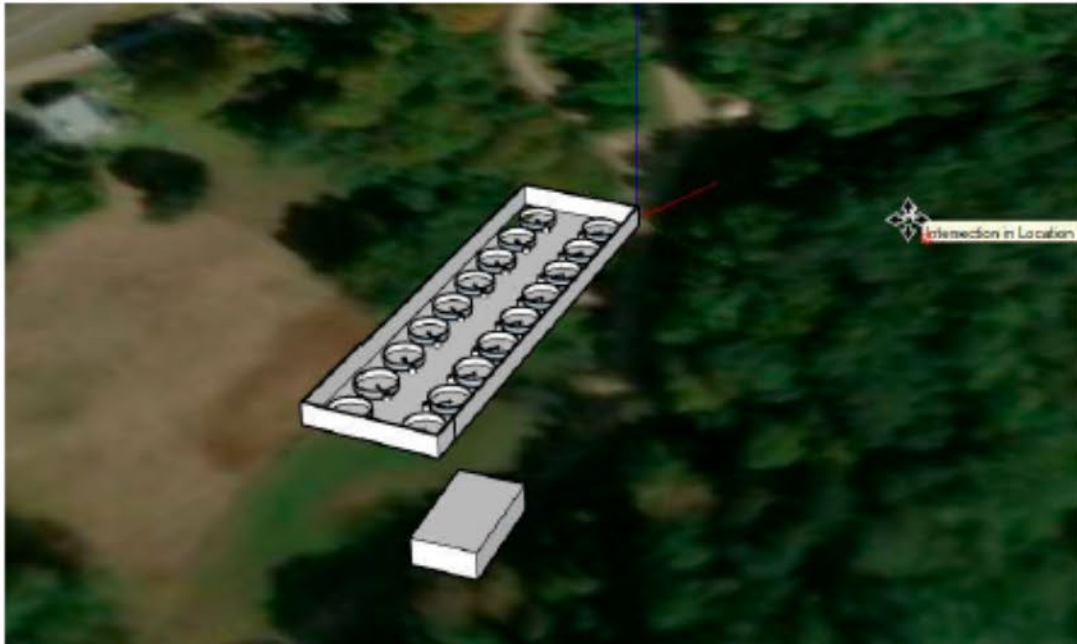
- 9,600+ SF Building with conditioned office areas
- 30 Early Rearing tanks @ 6' dia – allows for fish to 3"
- 6 Broodstock Tanks @ 10' dia
- 2 Linear Spawning raceways (interment use)
- First use Dickerman Pond water 652 gpm





Intermediate Building Conceptual Layout

- Pavilion style cover – 16,000 sf building
- 18 Rearing tanks @ 20' dia – 3" to 6" Fish
- Dual drain tanks
- 95% RAS treatment building
- Flow rate 3,172 gpm Total (3,014 gpm RAS with 159 gpm makeup)





UTILITY BOX

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2. HYDRO-CORE

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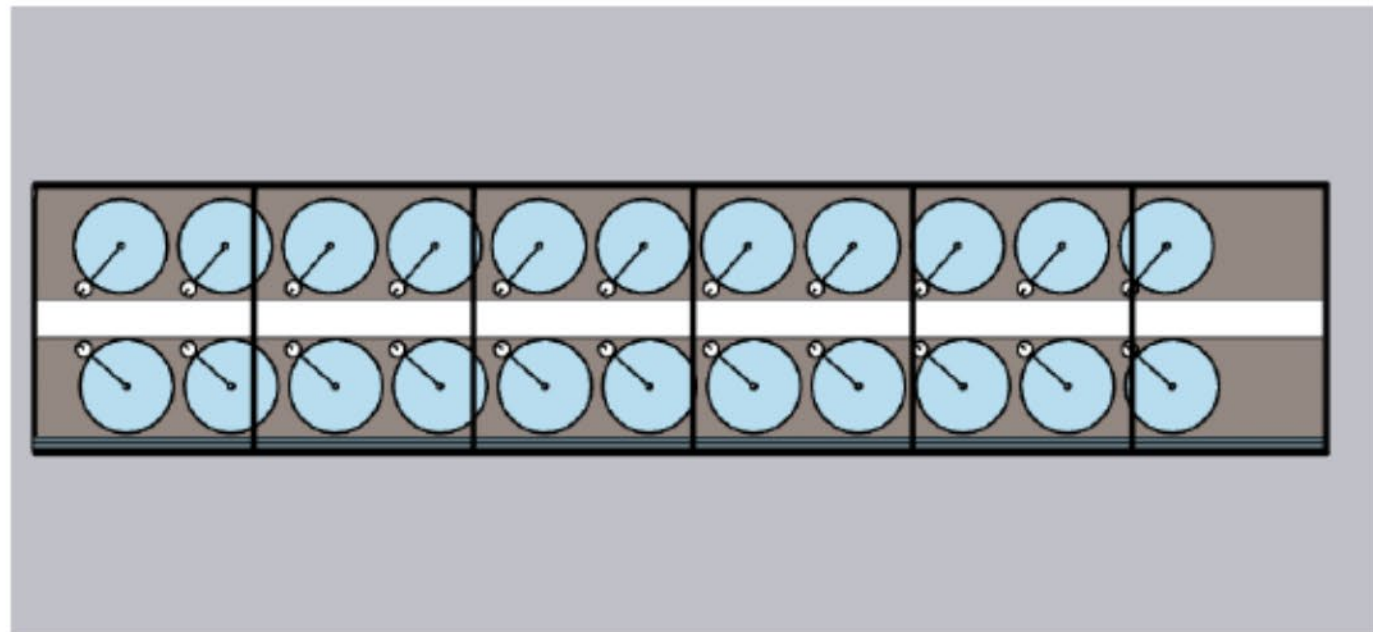
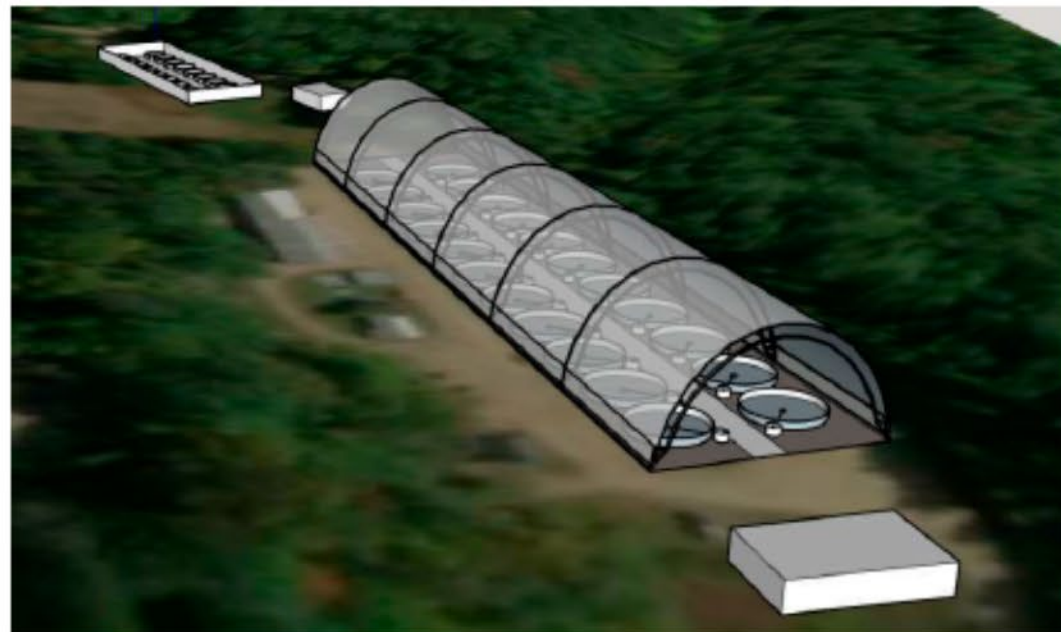
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Growout Building Conceptual Layout

- Tension fabric structure building or pavilion style building (60,000 sf)
- 20 Rearing tanks @ 40' dia – 6" fish to target
- Dual drain tanks
- 95% RAS
- Flow 12,533 gpm (11,906 gpm RAS with 627 gpm makeup)





Updated Estimate

11/2023

New 95% RAS Facility at New Hampton

150,000 lbs

ESTIMATED EXPENSE:

HDR Design contract	\$ 7,253,000.00
DPW Oversight	\$ 500,000.00
Construction	\$47,700,000.00
Construction Mgr at Risk	TBD* may be in constr
	\$55,453,000.000

Opinion of Probable Construction Cost Summary		
	Alternative 1A - Phase 2B	EXTENSION
A. Aquaculture Water Supply		
A1	Hatchery Supply	\$176,900
B. Buildings and Rearing Units		
B1	Intake Building	\$1,138,100
B2	Hatchery Building	\$3,029,600
B3	Rearing Building	\$14,177,300
B4	Rehabilitation/Demo of other buildings on site	\$283,800
C. Site		
C1	Site Work	\$598,400.00
C2	Domestic Water	\$35,600.00
C3	Domestic Wastewater	\$71,200.00
C4	Disinfection Station	\$16,200.00
C5	Paved Access to State or Local Highways	\$270,600.00
D. Aquaculture Wastewater		
D1	Effluent Treatment	\$1,472,600
D2	Effluent Monitoring	\$46,400.00
E. Electrical and HVAC		
E1	Electrical Service	\$215,000.00
E2	Emergency Power	\$326,200.00
E3	Instrumentation and Alarm System	\$284,800.00
F. Visitor Education/Interpretation		
F1	Visitor Center Repairs	\$429,900.00

		Subtotal	\$22,572,600
Contractor's Field General Conditions	10%	\$	2,257,000
Contractor's Mobilization	2%	\$	497,000
Contractor's Overhead and Profit	10%	\$	2,533,000
Bonds and Insurance	2%	\$	557,000
Subtotal - Contractor Costs		\$	28,416,600
Contingency	44%	\$	12,390,000
Subtotal		\$	40,806,600
Escalation to Midpoint of Const. (2026)	11%	\$	4,666,000
Market Volatility Adjustment Factor	5%	\$	2,274,000
Grand Total		\$	47,700,000

Critical Project Dates

Date	Task
February 2024	Bid Request Construction Manager
May 2024	Bid Issued-Guaranteed Maximum Price
August 2024	G&C Approval - Issue Notice to Proceed
early 2025	100% Design Plans and Begin Construction
December 2025	Powder Mill EPA NPDES permit in effect
December 2026	Construction 100% complete

ANGLER SURVEY

ATTENTION ANGLERS Report your catch!

The New Hampshire Fish and Game Department is seeking fishing reports on this waterbody. Your participation will help us better manage fishing opportunities.

Scan here!



Or go to: www.fishnh.com/stocking



New Hampshire Fish and Game Department
Inland Fisheries Division • (603) 271-3421
11 Hazen Drive, Concord NH 03301