Salmon Enhancement in Norton Sound, Alaska
Mist Incubation and Eyed-Egg Planting

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Norton Sound Economic Dev. Corp.

- Grants 65 communities, six groups, along the coast of the Bering Sea a certain percentage of the quota for several stocks of groundfish and crab. This “CDQ quota” provides funding toward building diversified and sustainable economies and alleviating poverty.
- The northernmost 15 communities are represented by Norton Sound Economic Development Corporation (NSEDC).
NSEDC Programs

Employment, Education and Training

Community Benefits

Norton Sound Seafood Products

Fisheries Research & Development
Fisheries Research and Development

6 full-time staff

24-30 fish technicians

20-30 beach clean-up crew members

12 test fishermen

4 ADF&G interns

Pilgrim River weir
Salmon Enhancement

Salmon Lake fertilization

Sockeye salmon
Salmon Rehabilitation
How did we start?

• Declining salmon returns
• Immediate Nome Area – 100 years of habitat disruption
• Local Residents Demand Action
Earlier work

• Fishery Management
• Habitat improvement
• Instream incubation boxes
• Lake fertilization
• Hatchery
• Recirculating Incubation
• Mist Incubation and egg planting
NSEDC Shopping List

• High likelihood of success.
• A site with good visibility and likelihood for harvestable surplus. Ideally for subsistence use.
• Economic operation.
• Simple enough to utilize local labor and existing infrastructure.
• Low water consumption.
• Exportable technology to outlying communities.
• Permit worthy
Additional Advantages

• Salmon hatch in the wild...subject to most natural selection processes.
• Avoids many pathogen concerns because the protective shell is intact during fish culture work
• Egg pumps have multiple uses: breaking concretion, fry assessment, planting
Planning, Preparation and Piezometers
Match the plant to the brood stock

• Habitat
  – Substrate/gradient
  – Up/downwelling
  – ATUs
  – Available rearing area
Preparation: Site Matching

Temperature Profiles of Basin Creek and Manila Creek

- Basin Creek
- Manila Creek

Date Range: 3/29/07 to 5/19/08
Preparation: Site Matching

Temperature Profiles of Moonlight Springs, Aggie Creek, and Hobson Creek
After the planning: Go get some fish!
OK, boss, we got some fish.
A net pen full of females.
And males are important, too.
The sex part of the operation.
Planting the eggs.
Moment of Opportunity

- Problem recognition
- Support for solution
- Stakeholder buy in
- Work window
That chick is crazy!

Look at all my BEAUTIFUL eggs!
Questions?