Aquacultural Research Corporation, Inc.

Coastal location

ARC is situated on a 39 acre parcel located within the coastal dunes on Cape Cod Bay.

Saltwater pools

Saltwater pool

Two saltwater pools are capable of impounding seawater at high tide for use by the hatchery and also function as storage for remaining shellfish.

Warehouse

Towns receiving stock

Cooperative Extension project day at ARC – Cape Cod towns in the to pick up their quahog seed and oyster mantle set bags.
Growing Shellfish

Shellfish must:
- have clean, fresh, aerated seawater to survive.
- be kept warm and fed during the winter months in order to reach planting size within the year.

Shellfish species grown at ARC

- American Oyster
- Pacific Oyster
- Muscovy Oyster
- Soft Shell Clam
- Razor Clam
- Blood Ark Clam
- Bay Scallop

Sorted Shellfish

- Sorted by size and species
- Kept in tanks with flowing seawater
- Seawater is pumped from an onsite seawater well
- Subsurface seawater well is critically important for this facility.

Seawater well in action

- Crates of oysters in ARC warehouse packed for sale through their national wholesale distribution system.
- Seawater tanks with preheated water for fast storage and have always tested clean.

Algae started in carboys

Algae grow-out

- Algae are grown-out in tanks to feed the shellfish.
- As with shellfish, the seawater for growing algae must be maintained within the proper temperature range and kept aerated and well-lit to promote growth.
- Fresh seawater is obtained from onsite seawater well.
Greenhouse tanks used for remote set oysters

Background
- ARC supplies every Barnstable County town and 90% of local/regional shellfish farmers with oyster and quahog seed.
- All commercial (1,200+) and recreational (~17,000) shellfisherman depend on ARC for shellfish propagation.
- ARC hatchery was constructed in 1961 and is owned by three partners.
- ARC is the only commercial shellfish hatchery in Massachusetts

Project Benefits
- Project has both regional environmental and economic benefits
- Preserves 36.7 acres of barrier beach in perpetuity
- Shellfishing on Cape Cod is a native, historic ‘Green Industry’
- Filter-feeding shellfish help to alleviate the nitrogen burden on coastal ecosystems
- Several towns have included shellfish in their nitrogen removal plans, reducing the cost of wastewater infrastructure

Project Benefits
- 18 year round jobs at ARC
- Shellfish seed to sustain 1200+ commercial diggers
- Shellfish seed to sustain 17,000 recreational permit holders
- Construction jobs during hatchery rebuild
- Shellfish seed for the majority of the Cape’s 235 shellfish farms.
- Indirect jobs for wholesalers, restaurants, retail markets, equipment sales

Project Cost Estimates
- $3 mil Conservation Restriction purchase price to be paid with state, county, Dennis CPC, Yarmouth CPC, Dennis Land Trust, Nature Conservancy funds.
- ~$3mil hatchery reconstruction from private investors