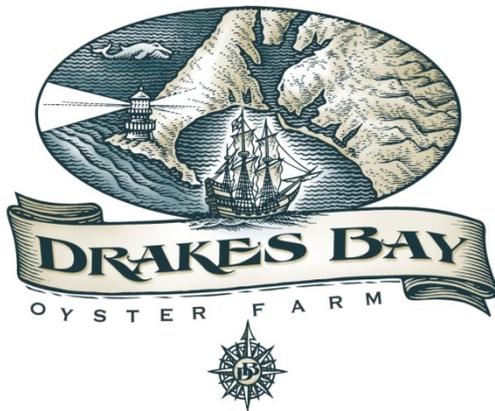


Aquaculture in Drakes Estero

for the Marine Mammal Commission



Kevin Lunny
Drakes Bay Oyster Farm
February 21, 2010



HISTORY

- 4 generations of cattle ranching on Point Reyes
- Founded Lunny Grading & Paving in 1979
- Purchased Johnson's Oyster Company in 2005





CONTINUITY

The stewardship of Point Reyes maintains continuity through the generations of farmers that live and work on the land and water.





PHILOSOPHY

Our goal is always to produce local, sustainable food for our community with a net benefit to the environment.





THE RANCH

- The 1st and only certified organic and certified grassfed beef herd in Marin County
- The 1st beef ranch in California to be certified Salmon Safe for the management of our riparian areas, pastures, and manure
- Award for Excellence in Rangeland Management by the Society of Rangeland Managers (2009)
- The 1st beef ranch in California to receive the Animal Welfare Approved seal for humane treatment of animals





THE RANCH





THE OYSTERS

- Oysters require no feed, no fertilizers, no chemicals, no pesticides, and almost no fresh water
- Oysters typically have largely beneficial biogeochemical functions in estuarine and lagunal ecosystems (National Academy of Sciences)
- The waters of Drakes Estero are some of the cleanest shellfish growing waters in the state
- Won the Most Beautiful Pacific Oyster Award from the National Shellfisheries Association





COMMUNITY LEADERSHIP

- Board member of Marin Organic
- President of Marin Agricultural Institute
- Board Member of the Pacific Coast Shellfish Growers Association
- Founding Member of the Point Reyes Seashore Ranchers Association
- Board Member of West Marin Chamber of Commerce



**Point Reyes Seashore
Ranchers Association**



OYSTER BAR DONATIONS

Drakes Bay Oyster has donated both oysters and time to put on oyster bars for a variety of charitable organizations on a regular basis:

- Disaster Relief Benefits
- Environmental Cause Benefits
- Non-Profit Organization Benefits
- Church Benefits
- Community Group Benefits
- School Fundraisers
- Countless More...





NATIVE OYSTER HABITAT RESTORATION



NOAA FISHERIES:
Restoration Center

Drakes Bay Oyster has donated, to date, \$20,000 worth of oyster shell to NOAA Fisheries for the San Francisco Bay Native Oyster Habitat Restoration project.





NATIVE OYSTER HABITAT RESTORATION

Drakes Bay shells were arranged to form reefs in the San Francisco Bay to encourage recruitment of native Olympia oysters.





SNOWY PLOVER HABITAT ENHANCEMENT



SAN FRANCISCO BAY BIRD OBSERVATORY

Drakes Bay Oyster donated shell to cover over 15 hectares of plover plots, providing excellent camouflage for the adults, eggs, and chicks.



“This past breeding season we observed our highest density of nesting plovers in the shell plots, and the nests in shell plots were statistically more likely to hatch than those outside the shell plots.”

- Caitlin Robinson Nilsen, SF Bay Bird Observatory



POINT REYES NATIONAL SEASHORE

- PRNS was established through a partnership between agriculture, mariculture, government, and environment.
 - With the purpose of preventing irresponsible development
 - With a commitment to protect the historic food-producing families
- This symbiotic relationship has survived the test of time. Both natural and cultural resources have been protected.
- Today, some individuals and agencies are working to undo this mutual commitment and seek now to make it impossible for the historic family farms to continue.
- By pitting agriculture and mariculture versus environment, decades of collaborative conservation are being undermined.



HISTORY OF THE OYSTER FARM

- For thousands of years, Native Americans harvested shellfish from Drakes Estero.
- In 1875, commercial shellfish farming began in nearby Tomales Bay and production in Drakes Estero followed shortly thereafter
- In 1934, California Dept of Fish & Game issued a 6,000 acre shellfish water bottom lease in Drakes & Limantour Esteros
- In the 1960s, when PRNS was established, CDFG agreed to limit the shellfish growing areas to only Drakes Estero
- The Drakes Estero lease, now reduced to 1,060 acres, still represents 55% of CDFG state shellfish water bottoms



COUNTY OF MARIN'S ROLE IN AGRICULTURE



The County of Marin has been a consistent supporter of agriculture and the environment, understanding the dynamic nature of the industry and the new challenges that are facing our family farmers.

- Reduced effort and fees for small scale processing
- Provide permit assistance
- Provide organic certifications
- Professional consulting
- National leader in sustainable agriculture



1992 SEAL PROTECTION PROTOCOLS

May 15, 1992

Map of
DRAKES ESTERO

scale 1:24,000

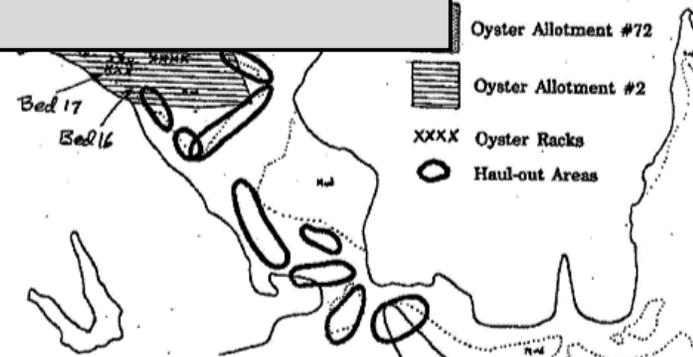


Protocol Discussions:

- 2004: Tom Johnson (previous owner)
- 2005: Tom Moore (CDFG)
- 2005: Jorge Mata (27 year manager)
- 2005: DBOF asked Sarah Allen (NPS)

As a result of a meeting with the National Park Service (NPS), the California Department of Fish and Game (CDFG), and Johnson's Oyster Company, an agreement was agreed upon to protect the oyster beds resulting from JOC's operations. The following protocols were mutually agreed upon:

- During the pupping season, the main channel (figure 1) should be used for boat traffic.
- The "lateral channels" (figure 1) are to be used on June 1.
- Oyster seeding between Creamer's Bay and Searles Bay, to commence on June 1, if possible. Earlier commencement dates, if any, should be coordinated between JOC and NPS.
- The "lateral channel" should be used as little as possible between June 1 and June 30. Oyster beds #2 and #3 should be approached from the north at low speed, and the beds should be themselves planted from north to south so that disturbance near the "lateral channel" will occur toward the end of the pupping season.





SEALS

- Our oyster bags are not on seal haulouts
- Oyster bags are on historically used and approved oyster beds.
- The 1992 protocols are followed





SOLUTIONS

- Openly and honestly correct the record
- Mutual collaboration between DBOF, CDFG, & NPS
 - Open dialogue and communication
 - Mutual trust and respect
 - Honesty and transparency
- Continue to protect the natural environment (including the harbor seals) of Drakes Estero