

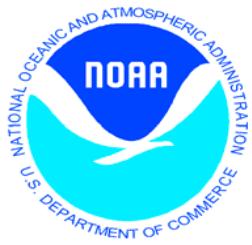
NOAA's National Marine Fisheries Service

Southwest Regional Office – Habitat Conservation Division

Recovering Endangered Species Act Listed Salmon and Steelhead Trout: A Role for Viticulture

Addressing the Impacts of the Past and
Looking Forward to Ecological Sustainability

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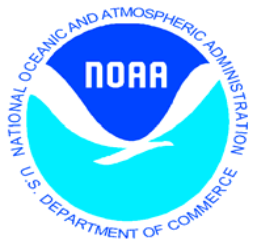
NOAA Fisheries Background

The Mission of the National Marine Fisheries Service

(NOAA Fisheries) is the stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems.

Anadromous fish such as salmon (Chinook, coho, pink, chum and sockeye salmon), Steelhead trout, and green and white sturgeon are considered marine resources.

Numerous populations are threatened with extinction and are protected by the Endangered Species Act (ESA). Commercial species, including some salmon, are managed under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).



The Endangered Species Act

The ESA provides for the conservation of species that are endangered or threatened throughout all or a significant portion of their range, and the conservation of the ecosystems on which they depend.

Conservation means to use and the use of all methods and procedures which are necessary to bring endangered species or threatened species to the point at which measures provided pursuant to the ESA are no longer necessary.



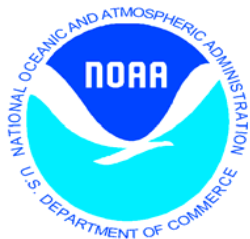
The Endangered Species Act

NOAA Fisheries works with Federal Agencies by consulting on Federal actions that may affect listed species. This may result in project modifications that avoid or minimize “take” of listed species and potential extinction.

“Take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct

Harass means a significant disruption of normal behavioral patterns and,

Harm means significant habitat modification or degradation that impairs normal behavioral patterns.

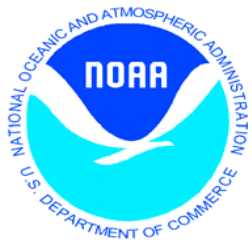


The Endangered Species Act

NOAA Fisheries also works with non-Federal entities (e.g. State and local agencies, private companies and individuals) to conserve listed species.

These processes may be rather formal (Habitat Conservation Plans) or a less formal form of Cooperative Conservation (e.g. the Fish Friendly Farming program).

In the Southwest Region of NOAA Fisheries, recovery plans for listed salmonids are under development with the release of the public review plan for coho salmon planned March 2009. This will be followed by plans for Chinook salmon and steelhead trout which are targeted for release by the end of 2009.



The Magnuson-Stevens Act

The purpose of the Magnuson-Stevens Act is to take immediate action to conserve and manage the fishery resources found off the coasts of the United States, and the anadromous species and Continental Shelf fishery resources of the United States.

The Magnuson-Stevens Act established Essential Fish Habitat (EFH) which has been defined in the implementing regulations as “Those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.”



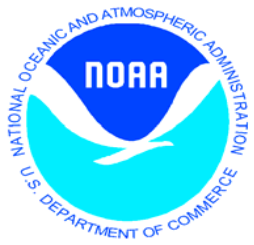
The Magnuson-Stevens Act

“Waters” include aquatic areas and their associated physical, chemical, and biological properties that are used by fish.

“Substrate” includes sediment, hard bottom, structures underlying the waters, and associated biological communities.

“Necessary” means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem; and

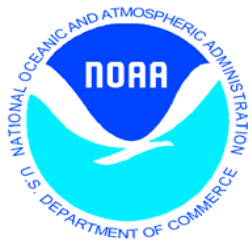
“spawning, breeding, feeding, or growth to maturity” covers a species’ full life cycle.



NOAA Fisheries Southwest Region - Working with North Coast Vineyards for Many Years

NOAA Fisheries Southwest Region has a history of working with vineyards to protect and recover listed salmonids through our participation in the Fish Friendly Farming program.

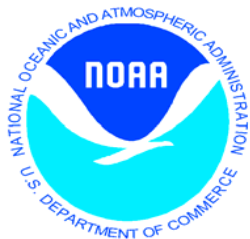
We sat on the Technical Advisory Committee that organized the program along with numerous other agencies, organizations and vineyard representatives. This gave the program an increased focus on the ecological impacts of vineyard development and operation compared to many other programs at that time.



NOAA Fisheries - Southwest Region – Habitat Conservation Division

NOAA Fisheries SWR has reviewed all the major vineyard sustainability programs in California that we are aware of and that are utilized in areas supporting salmonids (Code of Sustainable Winegrowing, Lodi Rules, Fish Friendly Farming, Sustainability In Practice/CCVT). We have also reviewed Salmon Safe and LIVE certification from the Pacific Northwest.

These programs have their strengths, but there are significant differences when addressing physical impacts to salmonid habitat (e.g. riparian area width and quality) from existing vineyards and the water system infrastructure of the vineyard system. These differences should be addressed to the benefit of both aquatic resources and industry fairness and consistency.



Components of Sustainability Programs that could be improved:

Riparian Zone Size Criteria - a science based, eco-zone specific size (e.g. one site potential tree height for fish bearing waterbodies plus connectivity to the floodplain) that will lead to species conservation by providing multiple functions (stream bank stability, temperature regulation, NPS pollution control, large woody debris recruitment, detritus inputs and maintenance of base flows) and that can be adjusted on a site-specific basis.

Riparian Zone Quality - most programs include invasive species removal, but do not discuss riparian zone structure in detail. Ideally we would have bank cover that provides stability (e.g. willows), followed by shade trees and appropriate understory, and then a grassy area that disperses and filters overland flow.



Components of Sustainability Programs that could be improved:

Water Infrastructure and Management - All programs should examine if water infrastructure is impeding salmonid recovery and require modifications. This means:

- * moving on-stream reservoirs that block passage to an off-stream location or alignment,
- * providing fish passage over remaining facilities,
- * protective screening of direct diversion pumps,
- * development of deep wells or non-jurisdictional ponds for supply,
- * installing bypass flow infrastructure and appropriate schedules

Water use should be further refined by:

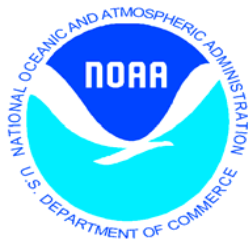
- * installing lower flow sprinkler heads for frost control,
- * using wind machines or forced cold air displacement systems,
- * examining “watershed approaches” as allowed under AB2121



Components of Sustainability Programs that could be improved:

Verification and Monitoring - Independent 3rd party certification is necessary to eliminate real or perceived conflicts of interest. Many programs are going down this route which is good. The industry should:

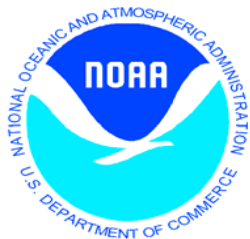
- * consider the Cooperative Conservation approach of getting routine input and review from the environmental, regulatory agencies on the overall program standards,
- * offer an “elevated” certification to those growers who open their property to agency input and commit to changes indentified by those agencies,
- * make action plans with appropriate timelines a requirement for any level of certification, and
- * strive for compliance with environmental statutes.



So what is Sustainable? - I'm not about to beat that horse!

What does the public expect regarding “sustainable” vineyards?

- * Does not export impacts or externalize costs to the environment,
- * Addresses the impacts inherited from the original footprint of the property even when that means deferring some profits,
- * Contributes to the health of the local ecosystem,
- * Aids in the conservation of listed species,
- * Compliance with the intent, if not the letter, of environmental laws
 - Clean Water Act - restore and maintain the chemical, physical and biological integrity of the Nation's waters
 - Endangered Species Act - conserve listed species and the ecosystems on which they depend
- * Sustainability standards have been reviewed and accepted by the public trust agencies

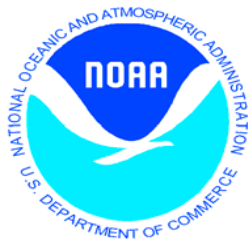


Looking Forward

This agricultural sector is doing as much as, and it seems more than, most other sectors as a whole. There are many programs that have galvanized the growers, started addressing the impacts of the past, and set the table for future success.

It is time to push forward and tackle the larger issues such as water use and infrastructure impacts, riparian area structure and management needs for habitat conservation, the need for committed action plans and independent verification and monitoring of practices and projects.

Set the bar for sustainability high and make peace with the fact that everyone will not pass. Acknowledge that economic restraints do not excuse all impacts and that properties which prevent the conservation of listed species are not “green” or “sustainable”.



Just the beginning of non-industry coverage?

How wineries are packaging their eco-credentials

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SFGate.com

How wineries are packaging their eco-credentials

Tara Duggan, Chronicle Staff Writer

Friday, November 14, 2008



Feel-good phrases like "responsible stewards of the land" and "family farmed for a sustainable world" take up a lot of real estate on the front label of Parducci's Sustainable Red. The back label features a checklist of the wine's eco-creds: locally farmed grapes, solar energy, earth-friendly packaging. A cardboard wrapping around the bottleneck seals the deal by proclaiming that it's made at the country's first carbon neutral winery.

Parducci - part of the Mendocino Wine Co. - is a dramatic example of how winemakers are choosing to communicate their sustainable practices. In the old days, wine associated with organic agriculture was left dusty on the shelf. But in this new era of eco-luxury, green is something to be proud of. Wineries are devising all kinds of ways to market their eco-practices.



We're Hoping for Increased Collaboration

NOAA Fisheries needs your help to recover ESA listed salmonids and is hoping to work with groups to review sustainability programs and give suggestions that would bring them into compliance with the mission of the agency to protect and restore living marine resources through science-based conservation and management, and the promotion of healthy ecosystems.

We expect to release a draft set of BMPs in the near future. They were developed in response to a request from the Sonoma County Salmon Coalition to explore incidental take coverage for interested members. We will welcome discussion regarding these BMPs and hope they can be used to start conversations outside of Sonoma County.



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QUESTIONS?