

# Fishery Ecosystem Plan Appendix & Ecosystem Initiatives

Ecosystem Workgroup  
Presentation for D.1.a.

September 11, 2015



## A.2.10 *Coordinated Ecosystem Indicator*

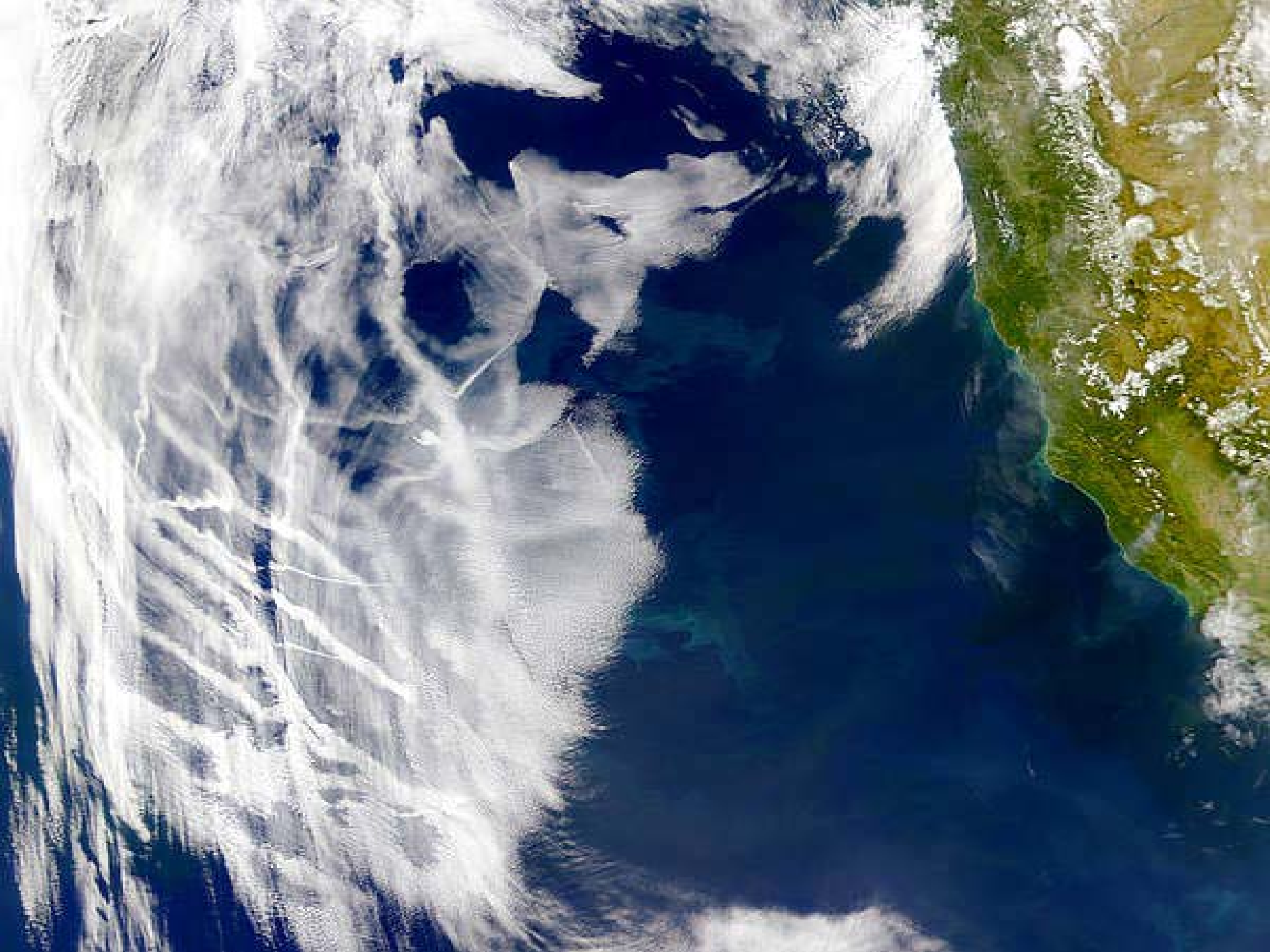
- *Review* ✓
- D.1.a. at 2.1 ✓
- D.1.a. at 3.2 ✓
- D.1.a. at 3.1 ✓

D.1.a. at 2.2 through 2.4 ??



















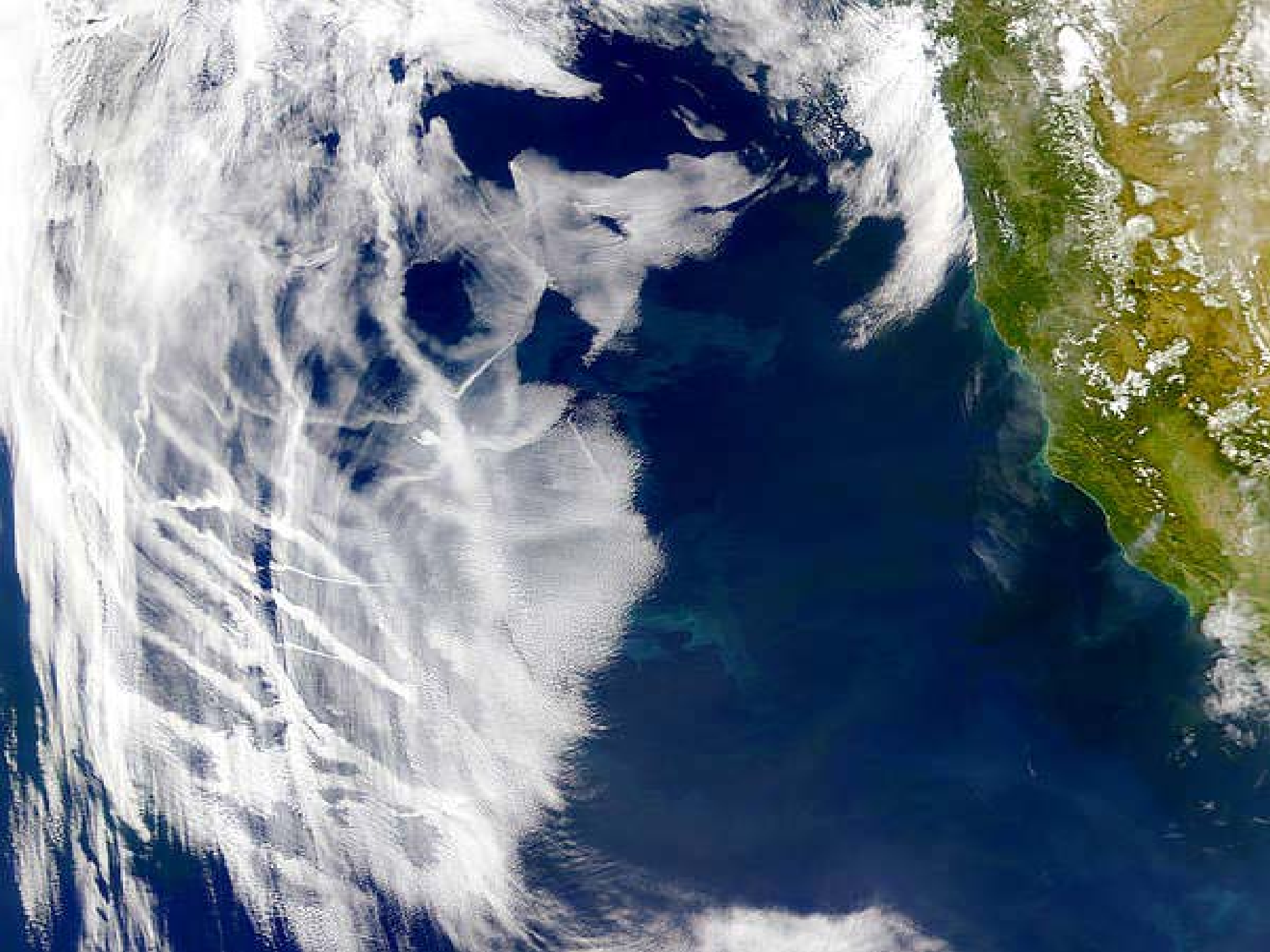
# March 2016







Work with the SSC Ecosystem Subcommittee and with NMFS's Integrated Ecosystem Assessment team to **begin assessing Ecosystem Report's potential to inform decision-making under each FMP and to evaluate consistency with the purposes of the FEP.**





Effects of temperature change, ocean acidification, and hypoxia on Council-managed species?

Identify West Coast fishing communities with dependency on Council-managed resources and vulnerability to changes in harvest availability of those resources.

Physical effects of climate change (sea level rise, storm surges, etc.) on coastal communities?

Which fishing communities depend upon the species that are most likely to be affected by changes in temperature, ocean acidification, and hypoxia?

Where do these overlap?  
Double-jeopardy communities that are vulnerable to physical effects of climate change, AND to changes in fish harvest availability.

Council able to develop mitigation measures for predicted effects of climate change, for example:

- Managing harvest amounts or allowable fishing areas to buffer for effects of temperature change, or to avoid areas of increased ocean acidification or hypoxia or other expected effects from climate change;
- Alerting double-jeopardy communities to the potential long-term effects of changes in harvest availability;
- Planning for harvest effects on particular runs of salmon to account for expected upstream effects of climate change;
- Managing CPS harvest times and areas to minimize effects of boom-and-bust harvest cycle;
- Managed longer-lived species, such as rockfish, to build more age diversity into populations;
- Better predicting HMS migratory patterns and albacore availability off the U.S. West Coast;
- Better predicting how effects on Council-managed species will affect other components of the ecosystem.





For those images where sources are not shown directly on image, all are courtesy of the U.S. National Oceanic and Atmospheric Administration, except:

Slides 2 and 9: Sacramento River, City of Sacramento.

Slides 2 and 14: FEP cover image, Blue Marble: Next Generation, Reto Stöckli, NASA Earth Observatory

Slide 5: Austin Pass, Idaho Panhandle, USDA Forest Service

Slides 6, 12, and 14: Northeast Pacific Ocean; NASA/Goddard

Space Flight Center  
Slide 8: Monterey Bay fishing boats, Deborah Wilson-Vandenberg, CDFW

Slide 10: Forest floor with trilliums, U.S. Department of Energy

Slide 14: Steller sea lions, USFWS; Clock, U.S. Naval Observatory