

Revised Hawaii Coral Reef Strategy Objectives and Activities (July 2016)

(**Bolded Activities are FY17-18 Priorities**)

Objective #1: Reduce key anthropogenic threats to two priority near- shore reef areas by 2015 and five by 2020 using ahupua'a based management

1. **Implement pollution control activities outlined in one of the following conservation action plans or watershed plans in the priority sites. Activities may also include conducting a situation analysis.**
 - [*Wahikuli-Honokowai Coastal Conservation Action Plan*](#)
 - [*Wahikuli-Honokowai Watershed Management Plan*](#)
 - [*Kahana-Honokahua-Honolua Strategies and Implementation Report*](#)
 - [*Kahana, Honokahua & Honolua Watershed Planning- Characterization Report*](#)
 - [*South Kohala Conservation Action Plan*](#)
 - [*Wai'ula'ula Watershed Plan*](#)
 - [*Pelekane Bay Watershed Plan*](#)
2. **Conduct Land-Based Sources of Pollution (LBSP) appraisals especially where data gaps exist to further identify hot spot for erosion, nutrient, and contaminants.**
3. Identify and quantify marine resource and other environmental violations in representative areas.
4. Identify, assess, and to the extent possible, standardize public monitoring efforts. Compile the data in an accessible database within a site with the ability to transfer the monitoring protocols and database across different sites.
5. Complete marine and land use-pattern maps showing things such as: existing and future permits, recreation activities location and intensity, moorings, temporal and seasonal use and projected future use.
6. Work with Department of Health (DOH) to design an implementation plan for their substrate standards. Sub-activity: Identify barriers for implementation of DOH substrate standards and evaluate opportunities.
7. Initiate planning phase in another priority site.

Objective #2: Prevent new AIS introductions and minimize the spread of established AIS populations by 2020

1. **Support an Alien and Invasive Species (AIS) coordinator to work with Division of Aquatic Resources (DAR) and Department of Agriculture (DOA). A sub-activity may include, but is not limited to collecting baseline data and developing prevention policy and operational plans in partnership with federal and state agencies.**
2. **Institutionalize a marine debris coordinator for the state. Sub-activities may include, but is not limited to monitoring AIS transported through marine debris vectors and creating a molecular database of harbor species in order to facilitate eDNA sampling and early detection.**
3. **Conduct an AIS triage workshop to identify top marine AIS species and update DOA restricted species list. Identify vulnerable sites for increased monitoring.**
4. Conduct biological and ecological assessments of existing AIS. Identify vectors and pathways of AIS with regard to likelihood of transmission and their establishment.
5. Develop targeted community based social marketing outreach to prevent the introduction and spread of marine AIS.
6. Draft a business plan (i.e., cost benefit analysis) for the prevention of AIS into and across the state of Hawaii. The plan should include a revenue neutral program that includes funding for prioritized projects and an emergency response fund for AIS.
7. Conduct a risk assessment on top marine invasive species (focus on things cultured in the nearshore waters).

Objective #3: Increase the abundance and average size of ten targeted coral reef fisheries species critical to reef health and ecological function by 2020

1. Institutionalize DAR and DOCARE legal fellowships.
2. Institutionalize the DLNR Makai Watch program, including the coordinator position.
3. Increase enforcement capacity and effectiveness for fishing regulations.
4. Create a licensing program plan, looking at other state's models for fisheries management in the state of Hawaii. This may include, but not limited to benefits management, cost/benefit analysis, and balancing program costs and revenue.
5. Conduct ongoing assessment of target species and provide a forum for managers to review stock assessments.
6. Improve compliance with fishing regulations.
7. Support development and collection of scientific information, including basic science on the ecology, biology, life history of targeted species to create effective DAR regulations.
8. Support and expand the NOAA Fishery Extension Agent program to neighbor islands. Activities may include, but not limited to: a) Determine the most effective and respectful ways to contact or communicate with fishermen; b) Develop and implement a decentralized and consistent communication process/plan. c) Determine top subjects/issues that fishermen/stakeholders are interested in and develop outreach information and materials, d) Translate fisheries rules into more than one language priority Pacific Island languages, Filipino, Samoan, etc. e) Develop target outreach to increase community understanding of top 10 fisheries species and make readily available this info (translation science of target species for public audiences)
9. Support long-term monitoring projects that provide essential management information on the top 10 targeted species to support effective DAR rule changes.
10. Assess and revise DAR commercial sale and dealer regulation with the intent to collect robust commercial catch data.
11. Identify gaps, needs and opportunities in nearshore non-commercial fishery monitoring to increase the utility of data for local management efforts.
12. Identify, integrate, and assess the Biological, Social and Economic (BSE) impacts and benefits of implementing five pono and five non-pono fishery management practices. Use various community outreach strategies to promote these practices, including Community Based Social Marketing (CBSM) for each island based on guidance from cultural experts, kupuna and other culturally recognized sources of information.
13. Implement civil resource violation system.
14. Support and update an education and outreach program on fishery rules, including Makai Watch and Community Based Social Marketing.
15. Increase number of extension/outreach staff and/or roving naturalist.
16. Develop standard protocol for CREEL survey (stratified sampling process) for communities to use.
17. Continue to support semiannual and monthly fishers forum for consistent reliable information exchange
18. Effectively track enforcement capacity including, but not limited to disposition of citations.
19. Develop and implement target outreach to increase community understanding of top 10 fisheries species.
20. Support the establishment of a natural resource court through the DLNR Land Board, including administrative fines.
21. Use existing shore-based surveys to estimate and report the state's non-commercial recreational catch.
22. Continue "Fish flow" studies to better show where catches are showing up.

Objective #4: Designate a sufficient area of marine waters under effective conservation by 2020 to ensure sustainable and resilient coral reef ecosystems

1. Quantify fishery benefits of Hawaiian Marine Managed Areas (MMA) in terms of spillover and stock replenishment. A sub-activity may include, but not limited to quantifying the benefits of different types MMAs.
2. Support communities interested in establishing MMAs.
3. Institutionalize Community Based Subsistence Fishing Area (CBSFA) program, including a coordinator.
4. Advocate policy to enable MMA implementation.
5. Evaluate how much area, under what level of protection is needed to meet DAR's manage mandate.

6. **Conduct assessment of Biological, Social and Cultural Economic (BSCE) effectiveness of marine co-managements areas, including community based subsistence fishing area (CBSFA).**
7. Fully implement Act 306 (West Hawaii FMA).
8. Identify and characterize areas in the main Hawaiian island (MHI) for MMA designation, based on biological and ecological components and qualities of coral reef resilience.
9. Develop and implement targeted outreach and education to inform stakeholders and decision makers on the value of MMAs.
10. Implement existing plans (less than 10 years old) for established MMAs.
11. Assess the ecosystem condition, function and service benefits of MMA.
12. Identify areas socially, economically and culturally appropriate for spatial management; prioritize sites based on output.
13. Quantify fishing violations in MMA.
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15. Review, assess, update as needed, and implement "*Hawaii's Marine Managed Areas: Development of a Marine Protected Areas Network*"
16. Assess the recovery process of MPA impacted by natural and anthropogenic disturbance.

Objective #5: Reduce anchor damage and trampling of coral reefs through the implementation of no-anchor zones, utilization of day-use mooring buoys and other methods by 2020

1. **Ground truth, map and chart all moorings DMBs and make information available online and at vessel registration.**
2. **Implement community based social marketing (CBSM) to change behaviors to minimize trampling and anchoring damage.**
3. Identify sensitive areas vulnerable to anchor damage and trampling and implement most appropriate tool for that area.
4. Install informational signage at high use sites to discourage trampling.
5. Evaluate off shore mooring areas and revise to protect coral reefs.