



# **Hawai'i Marine Debris Action Plan:**

## **Third Hawai'i Marine Debris Action Plan Workshop Summary**

### **July 2014**





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All images are courtesy of the NOAA Coral Reef Ecosystem Program.

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# HI-MDAP History

In January 2010, the original Hawai'i Marine Debris Action Plan (HI-MDAP) was finalized. Thirty representatives from government, academia, nongovernmental organizations, and private businesses joined together to address the issue of marine debris in Hawai'i. The overall purpose of the HI-MDAP was to establish a comprehensive framework for strategic action to reduce the ecological, health and safety, and economic impacts of marine debris in Hawai'i by 2020, with activity plans updated every two years.

In April 2012, the second HI-MDAP workshop expanded to include sixty-one partners and organizations involved in marine debris mitigation efforts. The second HI-MDAP summarized previous accomplishments from 2010 to 2011 and included the activity plans from 2012 through 2013. Both action plans can be found and downloaded at <http://marinedebris.noaa.gov/report/hawaii-marine-debris-action-plan>.

In July 2014, the third HI-MDAP workshop included thirty-four participants from across the state who shared their marine debris accomplishments from the past two years and discussed gaps and priorities to address in the future. Due to limited space in the venue, not all HI-MDAP stakeholders were able to attend. However, their accomplishments from the previous action plan were captured in this document. The following document summarizes the 2014 HI-MDAP workshop.

## 2012-2013 HI-MDAP Update

### Accomplishments

The same four goals have been carried out through each Action Plan:

GOAL 1: Backlog of Marine Debris at Sea Reduced

GOAL 2: Incidence of Illegal Discharge of Fishing Gear and Solid Waste at Sea Decreased

GOAL 3: Number of Abandoned and Derelict Vessels Decreased

GOAL 4: Land-based Debris in Waterways Reduced

In 2012 and 2013, HI-MDAP stakeholders focused on removing and preventing marine debris (Goals 1 and 4), which are two main pillars in strategically reducing marine debris. HI-MDAP partners were successful in making progress towards these two goals, which are described in detail in the appendix. All accomplishments reported from the 2012-2013 timeframe are included in the appendix of this document.

### Challenges and Opportunities

During the 2014 HI-MDAP workshop, several sessions were set aside to discuss challenges and opportunities from the 2012-2013 HI-MDAP. See appendix for detailed descriptions.

# 2014 HI-MDAP Summary

At the 2014 HI-MDAP workshop, participants discussed the four goals. For each goal, they voted on the strategy that held the most importance to their personal interest or respective organization. The strategy with the highest number of votes was then further discussed and priorities were created to help achieve it. The following sections are organized by goal and describe the breakdown of votes by strategy and priority.

## Goal 1: Backlog of Marine Debris at Sea Reduced

- **Strategy 1.1** – Develop effective methods to locate marine debris accumulations.
- **Strategy 1.2** – Develop effective systems for reporting marine debris accumulations.
- **Strategy 1.3** – Develop capacity and coordination mechanisms for marine debris removal.

In Goal 1, Strategy 1.3 had the most votes (see Figure 1 for voting distribution for each strategy). Priorities were therefore created to focus on this strategy; these included “Ocean Ownership,” “New Cleanup Campaigns,” and “Clarify Cleanup Roles.”

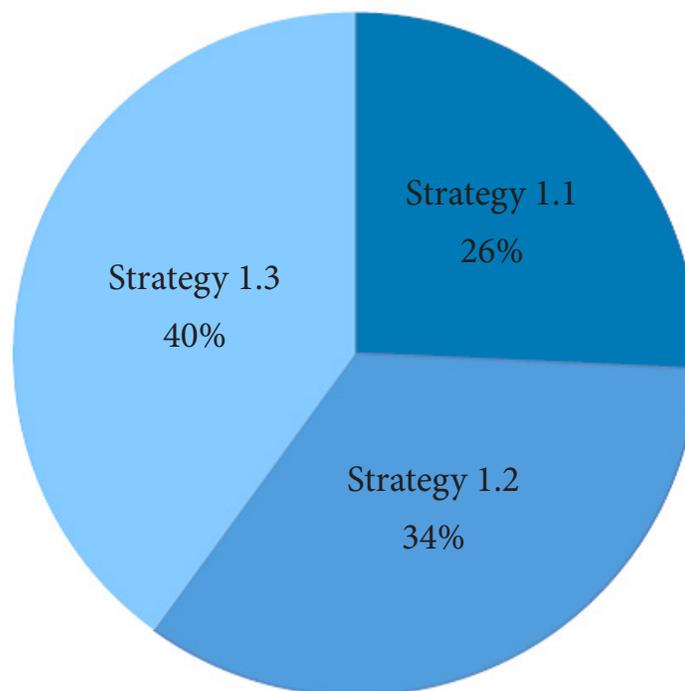
Over half of the workshop participants felt there was a need to instill an “Ocean Ownership” ethic into individuals and organizations to encourage them to take responsibility for the health and aesthetics of our coastal resources. The lack of “Ocean Ownership” was a common concern at all levels - federal, state, county and non-governmental organizations (NGOs). To stimulate an “Ocean Ownership” lifestyle and mindset change, marine debris cleanup campaigns would need to generate fresh and creative perspectives. The “two-minute cleanup” was a suggested campaign that would encourage ocean and beach users to spend the last two minutes of their beach visit picking up debris in the surrounding area. If this simple activity was implemented by all beachgoers, cleaner and healthier beaches could be created with minimal effort.

The third priority, “Clarify Cleanup Roles,” stemmed from all participants wanting a better understanding of organizational roles and responsibilities for removals and/or cleanup efforts. Many NGOs expressed concern about debris that was found or collected at beach parks and wanted clarification on which organization is ultimately responsible for removal and disposal. By understanding and clarifying federal, state, and county jurisdictions, as well as what resources each organization has available, communication and removal efforts could be streamlined. One suggested action was the creation of a point of contact list with an associated map to help outline jurisdictions and responsibilities. This action will be discussed at the 2016 Workshop.

## New priorities and interests within Goal 1 include:

- Using effective new technologies such as Unmanned Aircraft Systems (UAS) for at-sea detection of marine debris.
- Determining a data system that is most effective to better coordinate outreach and cleanups.
  - Data reporting should be compiled in a single location.
  - Minimal data requirements should include location (latitude and longitude) and photographs.
  - Data should be available to all agencies and the public.
  - Maintenance of this data system and the designation of who will manage it should be a priority for better coordination and collaboration between organizations, as well as for targeting education and outreach to the community.
    - Similar data collections have been shown to be useful for the establishment of bans (e.g. cigarette and plastic bag use).
- Establishing a standard monitoring protocol in Hawaii with minimal data requirements.
  - Since each organization has individual goals, objectives and resources, a standardized protocol is needed to make data useful for all.
  - Streamlined data collection simplifies data reporting.
  - Removed debris can be sub-sampled and then extrapolated to provide an estimate of metrics (e.g. number of people or volume and type of debris collected).

### Goal 1 Strategy Votes



**Figure 1:** This figure shows the voting distribution of strategy for Goal 1 strategies from the 2014 HI-MDAP Workshop. Strategy 1.1 – Develop effective methods to locate marine debris accumulations. Strategy 1.2 – Develop effective systems for reporting marine debris accumulations. Strategy 1.3 – Develop capacity and coordination mechanisms for marine debris removal.

## Goal 2: Incidence of Illegal Discharge of Fishing Gear and Solid Waste at Sea Decreased

- **Strategy 2.1** – Conduct education and outreach to ocean users on marine protection laws, including laws to prevent pollution from ships, ocean dumping laws and proper waste management at sea.
- **Strategy 2.2** – Provide low-cost and convenient disposal options for gear and solid waste.
- **Strategy 2.3** – Increase use of fishing materials and practices designed to reduce impacts of marine debris.
- **Strategy 2.4** – Strengthen marine protection laws, including ship pollution prevention and ocean dumping laws.
- **Strategy 2.5** – Build capacity to monitor and enforce against illegal discharge of solid waste at sea.

In Goal 2, Strategy 2.3 had the most votes (see Figure 2 for voting distribution for each strategy). Priorities were therefore created to focus on this strategy; these included “Source Identification,” “Incentive for Fishermen,” and “New Method for Net Return.”

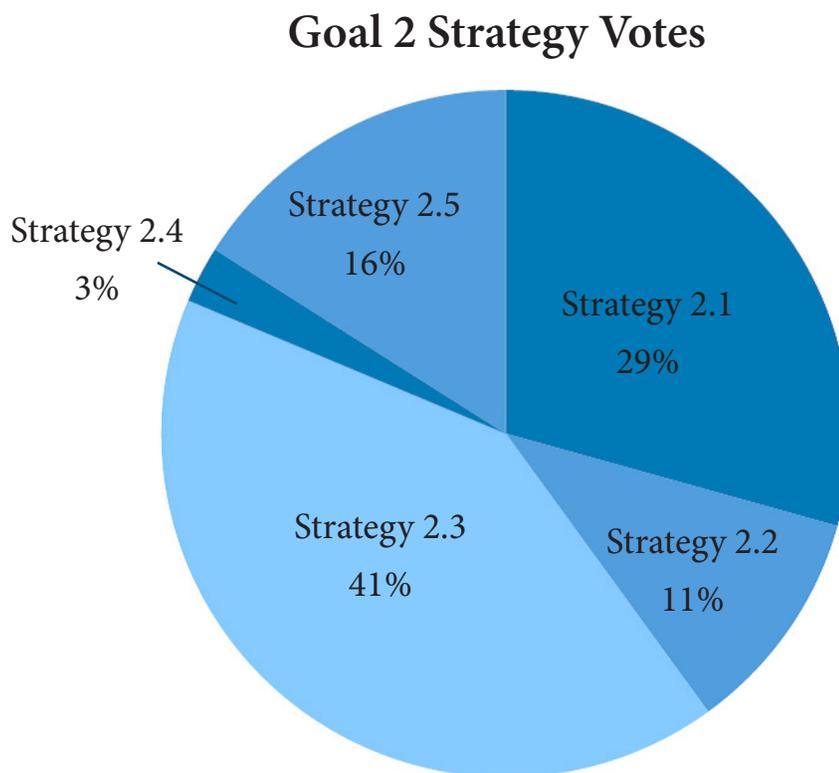
Over half of participants agreed that the greatest priority within Strategy 2.3 was to identify the source of marine debris, closely followed by the priority to create incentives for fishermen to remove marine debris (primarily derelict fishing gear) while out at sea. Many participants expressed the difficulties of source identification and discussed potential solutions such as:

- If possible, utilizing fishery observer data for identifying where debris has been lost or accidentally discarded and from what specific fishery
- Utilizing university students or professors to conduct modeling or mathematical algorithms to determine the origin of debris
- Creating a better tagging or tracking system for gear within each specific Pacific fishery

To address the creation of incentives for fishermen, participants discussed creative motivations and challenges for local fishermen to remove marine debris while operating at sea. Participants referenced successful incentive programs in other regions around the world like the plastic bank in Chile or net incentive program in South Korea. However, one primary challenge in Hawaii would be creating ownership within the longline fishery, considering the main derelict fishing gear removed in Hawaii comes from other Pacific fisheries (e.g. trawl, seine). Another fundamental challenge would be determining the funding mechanism to provide incentives for local fishermen. Despite the difficulties, participants felt strongly about educating and motivating Hawaii’s fishermen to lead the effort in removing marine debris (primarily derelict fishing gear) at sea.

New priorities and interests within Goal 2 include:

- Creating a strategic campaign on “good practices” and “impacts of marine debris” that targets various demographics (e.g. tourist, general public, commercial fishermen, etc.). This campaign should highlight notable debris items (e.g. oyster spacers used in the aquaculture industry) and bring attention to producers and consumers. A public figure or key spokesperson for each demographic group should be chosen. Funding and resources to promote the campaign should be identified.
- Providing convenient recycling and disposal options and educating the general public on proper recycling and disposal strategies.
- Advocating for more MARPOL signatories.



**Figure 2:** This figure shows the voting distribution for Goal 2 strategies from the 2014 HI-MDAP Workshop. Strategy 2.1 – Conduct education and outreach to ocean users on marine protection laws, including laws to prevent pollution from ships, ocean dumping laws and proper waste management at sea. Strategy 2.2 – Provide low-cost and convenient disposal options for gear and solid waste. Strategy 2.3 – Increase use of fishing materials and practices designed to reduce impacts of marine debris. Strategy 2.4 – Strengthen marine protection laws, including ship pollution prevention and ocean dumping laws. Strategy 2.5 – Build capacity to monitor and enforce against illegal discharge of solid waste at sea.

## Goal 3: Number of Abandoned and Derelict Vessels Decreased

- **Strategy 3.1** – Educate vessel owners on maintenance and maritime preparedness.
- **Strategy 3.2** – Develop capacity and coordination mechanisms for abandoned vessel removal and disposal.
- **Strategy 3.3** – Develop sustainable funding mechanisms and resources for vessel removal and disposal.

In Goal 3, Strategy 3.3 had the most votes (see Figure 3 for voting distribution for each strategy). Priorities were therefore created to focus on this strategy; these included “Liability Trust Fund” and “Abatement Fund Incentive for Fishermen.”

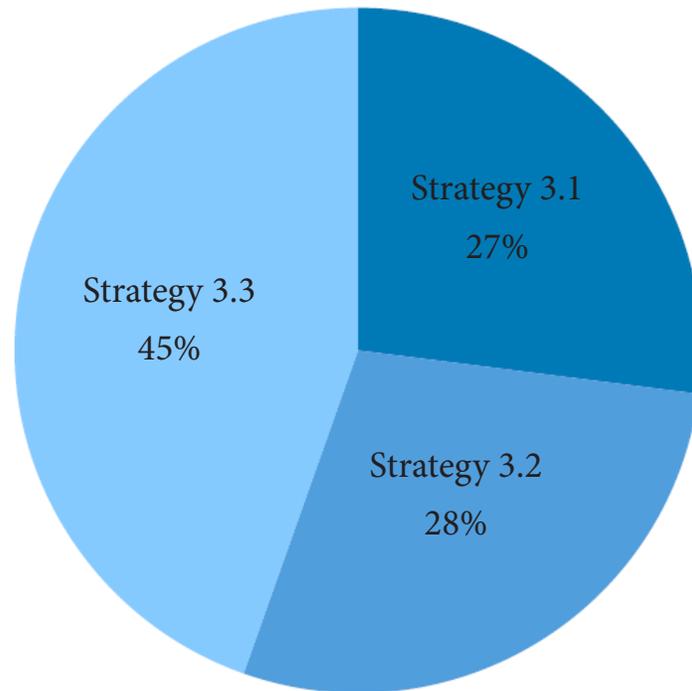
The participants discussed the international nature of the marine debris problem in the Pacific and noted that funds to address the issue should come from all stakeholders. They discussed possible funding sources for the “Liability Trust Fund” and suggested that these potential sources, such as national and international producers of plastics, should contribute funds to support marine debris removal efforts within the Pacific. Another suggested funding source was registered boat owners and the fishing industry, through a specified registration or tax fee. However, the “Liability Trust Fund” is not meant to give a justification to continue production of products such as plastics without looking into alternative options that are more environmentally friendly.

The abatement fund was identified as a more realistic funding source. This idea stemmed from the “Abandoned Watercraft and Abatement Fund” in California that provides funds to support local public agencies to remove, store, and dispose of abandoned, wrecked, or dismantled vessels (October 1997, Senate Bill 172). The main concern was determining the mechanism (state tax, disposal fee, etc.) to create the fund, as well as the need to involve and inform politicians for the creation of improved legislation.

New priorities and interests within Goal 3 include:

- Tracking and monitoring the ownership of vessels. This should include the continuation of mandatory education for boaters, as well as the creation of multi-lingual procedures to ensure clear communication and understanding for all boaters.
- Clarifying and strengthening agency mandates at the federal, state, and county levels, and developing contracts within the private sector (e.g. hiring towers).
- Enhancing maritime security to help track vessels out at sea.
- Educating vessel owners about maintenance programs and storm readiness training to prevent the loss of vessels.

## Goal 3 Strategy Votes



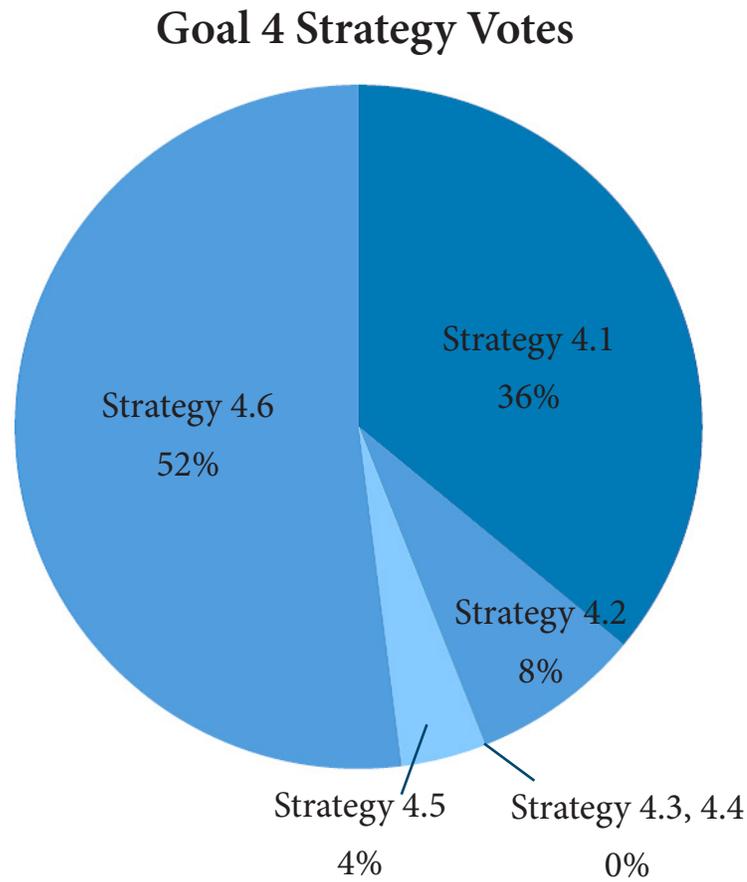
**Figure 3:** This figure shows the voting distribution for Goal 3 strategies from the 2014 HI-MDAP Workshop. Strategy 3.1 – Educate vessel owners on maintenance and maritime preparedness. Strategy 3.2 – Develop capacity and coordination mechanisms for abandoned vessel removal and disposal. Strategy 3.3 – Develop sustainable funding mechanisms and resources for vessel removal and disposal.

## Goal 4: Land-based Debris in Waterways Reduced

- Strategy 4.1 – Conduct education and outreach targeted to specific audiences.
- Strategy 4.2 – Improve effectiveness of stormwater permits.
- Strategy 4.3 – Build capacity to enforce all appropriate laws to reduce land-based discharge of solid waste.
- Strategy 4.4 – Employ structural controls and best management protocols (BMPs) to prevent land-based debris from entering the ocean.
- Strategy 4.5 – Increase coordination and targeted cleanups in watersheds and beaches.
- Strategy 4.6 – Decrease use of potential debris items.

In Goal 4, Strategy 4.6 had the most votes (see Figure 4 for voting distribution for each strategy). Priorities were therefore created to focus on this strategy; these included “Quantifying Baseline,” “Data Collection System,” and “Ban Plastic or Decrease Use.”

In order to see a decrease in debris items, a reference point needs to be established. Although data is collected from various organizations, a standard system is needed in order to compile and compare all the data for a baseline analysis. However, challenges lie in agreeing upon one system to meet the needs at all levels - federal, state, county, and NGOs. Continued support is needed for decreasing the use of plastics and debris items through education and outreach as well as through legislative change (e.g. plastic bag ban). Action can be taken by all stakeholders to have an overall decrease on debris items.



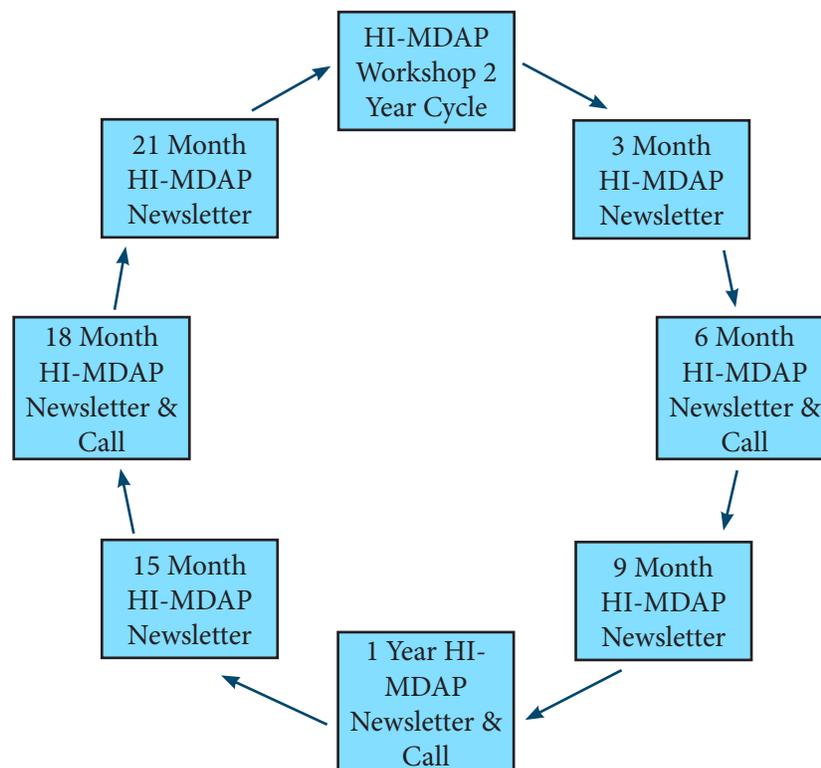
**Figure 4:** This figure shows the voting distribution for Goal 4 strategies from the 2014 HI-MDAP Workshop. Strategy 4.1 – Conduct education and outreach targeted to specific audiences. Strategy 4.2 – Improve effectiveness of stormwater permits. Strategy 4.3 – Build capacity to enforce all appropriate laws to reduce land-based discharge of solid waste. Strategy 4.4 – Employ structural controls and best management protocols to prevent land-based debris from entering the ocean. Strategy 4.5 – Increase coordination and targeted cleanups in watersheds and beaches. Strategy 4.6 – Decrease use of potential debris items.

# Future Priorities

Planned activities for the next two year cycle (2014-2016) include the creation of a Hawai'i marine debris quarterly newsletter, bi-annual calls, an event calendar, and working groups to promote focused discussion. The creation of a HI-MDAP quarterly update will provide a mechanism for HI-MDAP partners to summarize and share accomplishments. Links to their organizations' websites can be provided for more information and details if readers are interested. The creation of bi-annual calls will provide a mechanism for regular communication between all stakeholders during the two-year cycle. The agenda for the bi-annual call will be announced in the previous HI-MDAP quarterly. These calls will create open discussions on hot topics or allow new material to be presented via webinar (Figure 5).

The creation of working groups for each goal is needed to provide a mechanism for detailed discussion between and within goals. A representative from each working group will be designated to provide input for bi-annual calls. Additionally, the creation of a new goal, marine debris research, and therefore another working group, was discussed as being needed and so will be added to the next action plan. The creation of a marine debris event calendar can also help to better coordinate with partners and avoid the scheduling of cleanups or outreach and education events too close together.

All new priorities and interests will be followed up on and discussed in future working groups and in the 2016 HI-MDAP Workshop.



*Figure 5: HI-MDAP two-year communication cycle.*

# Appendix

## 2012-2013 HI-MDAP Reported Accomplishments

Accomplishments (2012-2013)	Organization/ Point of Contact	Location
GOAL 1: Backlog of Marine Debris at Sea Reduced		
Strategy 1.1: Develop effective methods to locate marine debris accumulations		
19 net recovery patrols were conducted in SE Hawai'i, covering 115 miles and removing 8,568 pounds of debris from our shoreline (90.69% of this marine debris (MD) was derelict fishing gear (DFG)). In total, 15 US tons of debris were shipped to Honolulu for the NOAA Nets-to-energy program during these two years.	Hawaii Wildlife Fund - Megan Lamson	Hawaii
GPS monitoring did not occur. Monthly shoreline surveys on North Beach ceased because base access was lost.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Bob Westerman is in charge. Water safety officers have been appointed and reported. Ocean safety concerns include safety, shark sightings, and reporting ocean conditions to weather services.	County of Kauai, Parks and Recreation - Lenny Rapozo	Kauai
Pictometry (one meter imagery resolution) was used to review marine debris. E911 funds for all counties. Fixed wing aircraft flies over transects and can observe larger objects, like abandoned automobiles. Training is lacking on identifying debris in pictometry imagery.	County of Kauai, Civil Defense - Mark Marshall	Kauai
GET system was set up to stream video back into the emergency report system. The Pacific Disaster Center has good imagery of coastlines and can produce imagery without cloud cover. Coastal imagery is still needed for Ni'ihau and Kauai.	County of Kauai, Civil Air Patrol	Kauai

<p>NOAA MDP implemented opportunistic and targeted detection from satellite, aerial and vessel assets in the Japan Tsunami Marine Debris (JTMD) response effort. All sightings reported/detected were tracked using the JTMD Sightings Tracker, maintained by NOAA MDP and translated into an online sightings map. The majority of sightings were from opportunistic sources based on the very large and remote target area within the North Pacific. Lessons learned in detection technique development/application are being captured in an overall report (see below).</p>	<p>NOAA Marine Debris Program</p>	<p>National</p>
<p>The NOAA MDP, working with TetraTech, has drafted a report on actions and lessons learned in at-sea debris detection efforts for JTMD. This report is in final revisions.</p>		
<p>Immediately following the tsunami, debris was in high enough densities that it could be detected by lower-resolution (15-20 m) satellite sensors. However, by April 2011, the debris had dispersed such that these sensors could no longer detect it. Since then, NOAA worked with NOAA NESDIS Satellite Analysis Branch (SAB) to request and analyze high-resolution imagery (1-5 m resolution) from the National Geospatial Intelligence Agency (NGA). So far, no debris has definitively been detected from satellite sensors. Early efforts used debris modeling to identify target areas in the likely debris pathways, and have now shifted to long term monitoring areas where satellite imagery can be compared over time to identify any changes in target signatures. NOAA NESDIS SAB has continued to develop and test new techniques to analyze data, and has found that visual and multispectral sensors are most applicable for debris detection, since RADAR (SAR) requires a high-floating and large target made of reflective material. Since most debris objects are awash and made of low-reflectance plastic materials, they do not generate sufficient return.</p>		
<p>In 2012, CRED conducted operations in the Northwestern Hawaiian Islands (NWHI) that resulted in the removal of 52 MT of DFG from six islands and atolls. In 2013, CRED conducted a survey and removal of MD at Midway that resulted in the removal of 13 MT of debris from the waters and shorelines of Midway Atoll.</p>	<p>NOAA Coral Reef Ecosystem Division - Kelley Sage</p>	<p>Northwestern Hawaiian Islands</p>
<p>Monitoring efforts at Kure are on-going.</p>	<p>US Fish and Wildlife Service - Lee Ann Woodward, State of Hawaii - Cynthia Vanderlip</p>	<p>Northwestern Hawaiian Islands</p>

There were no monitoring efforts in marine debris source identification except assistance in identifying debris suspected to be JTMD.	NOAA Papahānaumokuākea Marine National Monument - Scott Godwin and David Graham	Northwestern Hawaiian Islands
Supported NASA Ikhana and NOAA UAS Puma platform testing for MD detection in the NWHI in 2014. Will continue to support research and development of the effectiveness of marine debris technologies.		
No observation data was provided for improving ocean modeling.	PacIOOS - Heather Kerkering and Chris Ostrander	N. Pacific
Data management support to show where marine debris is located and its projected path of travel was not provided.		
Continued to work with yacht sailors on at-sea visual surveys for floating marine debris in the North Pacific (PRA-approved data collection form). No data has been submitted.	TransPacific Marine Debris Survey - James Callahan	N. Pacific
Hokulea has been trained on submitting reports from the NWHI. The NOAA Office of Marine and Aviation Operations worked with NASA and RIMPAC to do unmanned aircraft systems (UAS) surveys to improve shallow coral reef work and identify marine debris at sea.	NOAA Office of Marine and Aviation Operations	N. Pacific
NOAA MDP is a partner in the Main Hawaiian Islands (MHI) Contingency Response Plan for JTMD and assists in the removal of debris by providing financial and logistical support.	NOAA Marine Debris Program, NOAA Papahānaumokuākea Marine National Monument	Statewide
Partnered with 11 organizations around the state (e.g. HIHWNMS, Pacific Whale Foundation, CRED, Kupu, Pulama Lanai, SCH, HWF, etc.) to establish 13 monitoring sites. The MDP provides a database in which partners can enter their data. These monitoring sites will help provide baseline data and quantify accumulations, debris types, etc. at these locations. Through this monitoring program, we can track the progress of mitigation/prevention efforts.	NOAA Marine Debris Program	Statewide
Observing systems include on shore and at sea in situ and remote observations.	University of Hawaii, International Pacific Research Center- Nikolai Maximenko	N. Pacific

Strategy 1.2: Develop effective systems for reporting marine debris accumulations		
We have a call-in number for marine debris on Hawai'i Island (808-769-7629) that allows people to report any unusual, large, new, or particularly abundant debris to us and also provides the contact info for DLNR's marine debris report line (808-587-0400).	Hawaii Wildlife Fund - Megan Lamson	Hawaii
We have shared hotline information with all of our project partners and on all of our outgoing press releases and media. Also, we have uploaded the JTMD guideline PDF onto our website.		
The website to report on marine debris collections in and around HI includes images from the IPRC Marine Debris reporting website. The marine debris response form is not in use.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Boating and Ocean Recreation - Clifford Inn	Honolulu
People are able to report marine debris issues via the website, but no one has.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Kauai Net Patrol is ongoing.	Surfrider Foundation, Kauai Chapter - Carl Berg	Kauai
Continuing to model general marine debris (including JTMD) pathways and distributions globally and regionally.	University of Hawaii, International Pacific Research Center - James Potemra and Nikolai Maximenko	N. Pacific
Led JTMD update calls with West coast and Hawaii partners to keep them informed of all confirmed and reported items. Continued to support NGO's in identifying or confirming possible JTMD items. Informed the public through oral presentations about JTMD safety and reporting mechanisms.	NOAA Marine Debris Program, NOAA Humpback Whale Sanctuary, Dept. of Land and Natural Resources, City and County of Honolulu's Dept. of Emergency Management	Statewide
Strategy 1.3: Develop capacity and coordination mechanisms for marine debris removal		
Conducted 19 net recovery patrols in SE Hawai'i, covering 115 miles and removing 8,568 pounds of debris from our shoreline (90.69% of this MD was DFG). In total, 15 US tons of debris were shipped to HNL for the NOAA Nets-to-Energy program during these two years.	Hawaii Wildlife Fund - Megan Lamson	Hawaii
In 2012, CRED conducted operations in the NWHI that resulted in the removal of 52 MT of DFG from six islands and atolls. In 2013, CRED conducted a survey and removal of MD at Midway that resulted in the removal of 13 MT of debris from the waters and shorelines of Midway Atoll.	NOAA Coral Reef Ecosystem Division - Kelley Sage	Northwestern Hawaiian Islands

<p>A JTMD Response Plan Draft was completed through a partnership with NOAA ORR (Ruth Yender), NOAA MDP (Carey Morishige) and NOAA-ONMS-PMNM (Scott Godwin). This plan is included as Appendix M within the PMNM Emergency Response Plan.</p>	<p>NOAA Marine Debris Program, NOAA Papahānaumokuākea Marine National Monument</p>	<p>Northwestern Hawaiian Islands</p>
<p>The MDP provided financial support to CRED for removal of marine debris in the NWHI. The MDP also provided logistical support by helping to prioritize marine debris removal activities related to JTMD, shoreline monitoring, and general debris. The PMNM participated in MD Removal planning for FY 10-14 with NOAA MDP, NOAA PIFSC/CRED, and NOAA DAARP and maintained the line item money within the PMNM budget to support this effort.</p>		<p>Statewide</p>
<p>The NOAA MDP worked with state, federal, and local agencies to respond to JTMD. The MDP also worked with the Japan Consulate to identify potential JTMD and when requested, sent the item back to its owner.</p> <p><b>PMNM Part 1:</b> Provided funding and support to allow on-site engagement by NOAA MDP with Midway Atoll National Wildlife Refuge for radiation safety training, JTMD Response and marine alien species response. <b>Part 2:</b> Partnered directly with NOAA MDP to provide assistance to MHI efforts by developing guidelines for radiation safety, interagency coordination and producing a field guide for marine alien species identifications.</p>	<p>NOAA Marine Debris Program</p>	
<p>Debris removal was completed at Midway Atoll with JTMD funding.</p> <p>The NOAA MDP planned a JTMD workshop in May 2013 for state and federal partners to discuss the details of JTMD response, identify gaps in the framework (i.e., what worked, what didn't), and develop methods and approaches to ensure effective communication and response in the event of another natural disaster that generates marine debris.</p>		<p>National</p>
<p>Conducted 17 Ka'ehu Cleanups, which removed, counted and classified 61,014 marine debris items.</p>	<p>Hawaii Wildlife Fund - Cheryl King</p>	<p>Maui</p>
<p>A JTMD Response Plan Draft was completed through a partnership with NOAA ORR (Ruth Yender), NOAA MDP (Carey Morishige) and NOAA-ONMS-PMNM (Scott Godwin). This plan is included as Appendix M within the PMNM Emergency Response Plan.</p>	<p>Scott Godwin</p>	<p>Northwestern Hawaiian Islands</p>

Participated in MD Removal planning for FY 10-14 with NOAA MDP, NOAA PIFSC/CRED, and NOAA DAARP and maintained the line item money within the PMNM budget to support this effort.	Scott Godwin	Northwestern Hawaiian Islands
Provided funding and support to allow on-site engagement by NOAA MDP with Midway Atoll National Wildlife Refuge for radiation safety training, JTMD Response and marine alien species response.		Main Hawaiian Islands
Partnered directly with NOAA MDP to provide assistance to MHI efforts by developing guidelines for radiation safety, interagency coordination and producing a field guide for marine alien species identifications.		
<b>GOAL 2: Incidence of Illegal Discharge of Fishing Gear and Solid Waste at Sea Decreased</b>		
<b>Strategy 2.1: Conduct education and outreach to ocean users on marine protection laws, including laws to prevent pollution from ships, ocean dumping laws and proper waste management at sea</b>		
Provided outreach to Transpac and Pacific Cup yacht race participants on the N.Pacific "Garbage Patch" as well as best practices for on board waste management. Participating crews recorded visual observations of marine debris in transit between Oahu and the West Coast.	TransPacific Marine Debris Survey - James Callahan	N. Pacific
Work to integrate DOBAR, NMFS, and others into beach cleanup activities is ongoing.	Sustainable Coastlines Hawaii - Kahi Pacarro	Statewide
Partnered with Wanderlust, Triple Crown (Hale'iwa, Sunset, Pipeline), TedX, and Volcom Pipe Pro to educate about waste diversion.		
MARPOL Annex V revision was entered into force on Jan. 1, 2013 and implemented stronger restrictions on waste discharge from vessels. NOAA MDP continued to inform vessels and boaters about the new regulations. Also, MARPOL was incorporated into general outreach. Metrics were the same as outreach event metrics.	NOAA Marine Debris Program, Div. of Boating and Ocean Recreation	Statewide
HAR 13-244-15.5 (marine debris and abandoned derelict vessel education) was signed by government in Oct 2012.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Boating and Ocean Recreation - Clifford Inn	Statewide

Strategy 2.2: Provide low-cost and convenient disposal options for gear and solid waste		
The NOAA MDP assisted Hawai'i Nets to Energy partners by ensuring regular communication and providing support for media opportunities to highlight partner efforts and project sustainability in the Pier 38 port reception bin and program.	NOAA Marine Debris Program	Statewide
GOAL 3: Number of Abandoned and Derelict Vessels Decreased		
Strategy 3.1: Educate vessel owners on maintenance and maritime preparedness		
Provided signatures of support for DLNR DOBOR proposed legislation, HAR 13-244-15.5, at the last MD action plan meeting in April 2012.	Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Statewide
	Sustainable Coastlines Hawaii - Kahi Pacarro	
	Hawaii Wildlife Fund - Megan Lamson	
GOAL 4: Land-based Debris in Waterways Reduced		
Strategy 4.1: Conduct education and outreach targeted to specific audiences		
Hawai'i Wildlife Fund continued to set up outreach and educational booths several times a year and give classroom/public presentations at least twice per year, including to the UH Hilo upper-division marine debris class. Hawai'i Wildlife Fund Maui continued to set up outreach and educational booths several times a year and give classroom/public presentations, including at UH MC.	Hawaii Wildlife Fund - Megan Lamson and Cheryl King	Hawaii
A 1-hour presentation was given to elementary-aged students.	Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Honolulu
Continued education and outreach at schools' and neighborhoods' meetings focusing on marine debris and plastics.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Incorporated outreach activities and events on single-use plastics, cigarette butts, and water bottles into the program.	Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Honolulu
Continued school and community organization outreach efforts, public service announcements, and cleanups.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Continued outreach events and partnerships.		

Completed 22 beach cleanups from Jan 2012 to March 2014.	Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Honolulu
Continued to facilitate coordination of beach cleanup groups.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Hosted 78 beach cleanup events (mini cleanups with school/community groups & large community cleanups). A total 1,945 people participated, and 2,353 bags of marine debris were collected and removed, weighing 111,049 pounds (33.4% DFG by weight). HWF Maui conducted an additional 17 Kāʻehu Cleanups, removing, counting and classifying 61,014 marine debris items.	Hawaii Wildlife Fund - Megan Lamson and Cheryl King	Hawaii
Continued outreach to yacht clubs.	TransPacific Marine Debris Survey - James Callahan	N. Pacific
Marine Educator's Night was held at Waikiki Aquarium (~150 teachers), which provided curriculum and education materials to teachers interested in integrating MD into their classes. -The MDP also collaborated with CRED to conduct interactive activities with 2nd grade students from Waialae Elementary (~90 students) to show how they can prevent MD from getting into the ocean, and wildlife impacts of MD.	NOAA Marine Debris Program	Statewide
Publicized scientific information about marine debris modeling (JTMD), pathways and distribution, life cycles, balances, sinks, and impacts of the main types of marine debris.	University of Hawaii, Interational Pacific Research Center- Nikolai Maximenko	Statewide
Implemented an e-permitting system for NPDES permits in mid 2013. Over 700 general NPDES permits were processed in October 2013. Online permits are available at: <a href="https://eha-cloud.doh.hawaii.gov/epermit/View/default.aspx#dfd063d4-4358-4697-8d85-29f0b123d9c5">https://eha-cloud.doh.hawaii.gov/epermit/View/default.aspx#dfd063d4-4358-4697-8d85-29f0b123d9c5</a>	State of Hawaii, Dept. of Health	Statewide
The City and County of Honolulu expected to provide the baseline trash loading study plan to the Hawaii Department of Health by October 2014 for review and approval. The baseline trash loading study was one component of the trash reduction plan and was to be used to evaluate progress in reducing stormwater-related discharges of land-based trash loads.	US EPA, Region 9 - Hudson Slay State of Hawaii, Dept. of Health	Statewide

Strategy 4.3: Build capacity to enforce all appropriate laws to reduce land-based discharge of solid waste		
Continued to propose land use conditions to consider, and in cases where the condition was adopted, enforced water quality permits.	State of Hawaii, Dept. of Business, Economic Development, and Tourism, Coastal Zone Management Program - Leo Asuncion	Statewide
Strategy 4.4: Employ structural controls and BMPs to prevent land-based debris from entering the ocean		
The Hawaii CZM Program continued to review proposed projects and encouraged the use of its <i>Hawaii Watershed Guidance</i> .	State of Hawaii, Dept. of Business, Economic Development, and Tourism, Coastal Zone Management Program - Leo Asuncion	Statewide
Strategy 4.5: Increase coordination and targeted cleanups in watersheds and beaches		
Hosted 78 beach cleanup events (mini cleanups with school/community groups & large community cleanups). A total 1,945 people participated, and 2,353 bags of marine debris were collected and removed, weighing 111,049 pounds(33.4% DFG by weight). HWF Maui conducted an additional 17 Kaēhu Cleanups, removing, counting and classifying 61,014 marine debris items.	Hawaii Wildlife Fund - Megan Lamson and Cheryl King	Hawaii
Organized 22 cleanups throughout Oahu since Jan 2012.	Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Honolulu
Continued existing cleanup efforts and expanded cleanups to watersheds/canals.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Purchased beachcleanups.org and .com. Worked on creating an all-encompassing website that others can update.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Worked with other NGO's, including Kokua Hawaii Foundation, to educate kids about marine debris.	Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Honolulu
Continued to partner and improve coordination among varying groups/agencies.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
The NOAA MDP provided cleanup materials (i.e. gloves, trash bags, clipboards, etc.) as well as giveaways (i.e. shirts, water bottles, reusable bags, etc.) to various NGO's and other partners to assist in marine debris cleanup activities.	NOAA Marine Debris Program	Statewide

Strategy 4.6: Decrease use of potential debris items		
A ban on cigarettes at state run beaches was approved	Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Honolulu
A proposed ban on styrofoam was in legislation.		
Used feed bags from a local stable during clean-ups.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Provided education and outreach on the reduction of single-use plastic products through community events and school presentations.	Sustainable Coastlines Hawaii, Kahi Pacarro	Honolulu
	Surfrider Foundation, Kauai Chapter - Carl Berg Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Kauai and Honolulu
Worked on legislation targeting cigarette butts through education and outreach.	Sustainable Coastlines Hawaii - Kahi Pacarro	Statewide
Bans on smoking at beaches and parks were passed.	Surfrider Foundation, Oahu Chapter - Tim Tybuszewski	Statewide
A new Honolulu law that banned smoking at all city beaches, parks, pools and athletic facilities on Oahu took effect on New Year's Day 2014. The State Department of Health was working on a bill that would ban smoking on beaches statewide.	State of Hawaii, Dept. of Health - Maile Sakamoto	Statewide

## 2012-2013 HI-MDAP Challenges and Opportunities

During session 4, 5, and 6 (see appendix for agenda) on Day 1 of the 2014 HI-MDAP, challenges and opportunities were brainstormed by participants and summarized in the table below.

<b>Challenges</b> ( <i>listed in order offered</i> )	<b>Opportunities</b> ( <i>listed in order offered</i> )
1. Unclear accumulation rates and quantities.	1. Assess statewide accumulation.
2. Incomplete Styrofoam Polystyrene foam ban efforts.	2. Renew support for Polystyrene foam ban. Cite public health issues, scientific studies, and expert testimony.
3. Lack of MD-focused staff positions within State DLNR (shared responsibility/team); challenging process to create new positions within State government; bureaucracy difficult to work with.	3. Create new, dedicated MD-focused staff position in DLNR.
4. Lack of funding.	4. Create new funding partnerships. Leverage other/non-traditional donor funding.
5. Lack of communication between partners; overlapping/unclear jurisdiction among agencies on MD.	5. Renew partnerships to increase communication among partners and increase continuity of efforts. The HI-MDAP quarterly was designed for this reason.
6. Insufficient collaboration with industry on MD prevention efforts.	6. Work with manufacturing partners to build support for MD prevention at source.
7. Unclear MD contributions/scale from Japan Tsunami; public misinformation.	7. Raised public awareness and interest in MD issues from Japan Tsunami.
8. Lack of data sharing and coordination among entities.	8. Expand existing data clearinghouses to share information openly and easily.
9. Absence of microplastics/micro-debris from current HI-MDAP Strategy.	9. Include microplastics/micro-debris into 2013-2014 strategy and action plan.
10. Lack of volunteers for marine debris efforts.	10. Encourage and grow volunteer base; avoid disenfranchisement/attrition of public support.
11. Lack of marine debris support from consistent agencies.	11. Outreach with senior leaders to re-engage and build their support, increase agency credibility.
12. Negative impact by marine debris from international sources. Hawai'i is unable to solve the issue alone. A regional scope and urgency is needed.	12. Engage international community to address MD issues in Hawai'i. Build international partnerships with Pacific Rim nations; work within MARPOL convention process; SPREP, Australia, France; convene foreign fishing nations to clean up derelict fishing gear and prevent gear loss/dumping; engage State Department, request support.
13. Large presence of complex, associated issues and contributing threats that exacerbate MD.	13. Use Hawai'i MD action plan to leverage support on related, ocean management issues (e.g. seabed mining); raise awareness of public health issues (toxicity of fish) via 'scare factor' of toxins in food supply via microplastics.

## 2014-2015 HI-MDAP Planned Activities

Planned Activities (2014-2015)	Organization/ Point of Contact	Location
<b>GOAL 1: Backlog of Marine Debris at Sea Reduced</b>		
<b>Strategy 1.1: Develop effective methods to locate marine debris accumulations</b>		
Continue to conduct net patrols along southeast Hawaii Island coasts.	Hawaii Wildlife Fund - Megan Lamson	Hawaii
Continue to conduct net patrols along Kauai east coasts.	Surfrider Foundation, Kauai Chapter - Carl Berg	Kauai
Use pictometry (1 m resolution imagery) to look for marine debris in all counties.	County of Kauai, Civil Defense	Kauai
Obtain coastal imagery for Niihau and Kauai.	County of Kauai, Civil Air Patrol	Kauai
Continue to opportunistically support the advancement of at-sea detection for marine debris through remote sensing.	NOAA Marine Debris Program	National
Continue to support marine debris removal in the Northwestern Hawaiian Islands.	NOAA Coral Reef Ecosystem Program, NOAA Marine Debris Program, NOAA Papahānaumokuākea Marine National Monument - Scott Godwin	Northwestern Hawaiian Islands
Continue monitoring efforts at Midway Atoll, Tern Island (French Frigate Shoals), and Kure Atoll in the Northwestern Hawaiian Islands.	US Fish and Wildlife Service - Lee Ann Woodward State of Hawaii - Cynthia Vanderlip	Northwestern Hawaiian Islands
Provide assistance in marine debris source identification for monitoring efforts by DLNR-DOFAW in the Northwestern Hawaiian Islands and Kure Atoll.	NOAA Papahānaumokuākea Marine National Monument - Scott Godwin	Northwestern Hawaiian Islands
Partner with NOAA-UAS Program for continued development of UAS platforms for at-sea detection.		
Continue to work with yacht sailors on at-sea visual surveys for floating marine debris in the North Pacific (PRA-approved data collection form).	TransPacific Marine Debris Survey - James Callahan	N. Pacific
Continue to work with NOAA Office of Marine and Aviation Operations on the reporting of marine debris at sea and continue work to expand to other Federal agencies (N. Pacific).	NOAA Office of Marine and Aviation Operations	N. Pacific
Work with partners to assist in marine debris detection across the state of Hawaii.	NOAA Marine Debris Program, NOAA Papahānaumokuākea Marine National Monument	Statewide

Partner with NGOs, academia, and other organizations to implement standardized shoreline monitoring and data collection in order to build a baseline for various locations throughout the state. Support better partner communication by creating a Hawaii Marine Debris Newsletter, leading bi-annual calls, and creating working groups to have more focused discussions.	NOAA Marine Debris Program	Statewide
Design marine debris observing systems.	University of Hawaii, Interational Pacific Research Center- Nikolai Maximenko	N. Pacific
Conduct global assessment of marine microplastics in the oceans.	GESAMP, Working Group 40 - James Potemra	Global
<b>Strategy 1.2: Develop effective systems for reporting marine debris accumulations</b>		
Implement a marine debris “hotline” for Hawaii County.	Hawaii Wildlife Fund - Megan Lamson	Hawaii
Work with partners to promote the new hotline.		
Implement a marine debris reporting hotline for the City and County of Honolulu.	Surfrider Foundation, Oahu Chapter - Marvin Heskett	Honolulu
Use the Oahu Marine Debris Response and Removal reporting form.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Boating and Ocean Recreation - Clifford Inn	Honolulu
Add a reporting mechanism to Sustainable Coastlines’ website for the public to identify areas with specific marine debris issues.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Continue the Kauai Net Patrol Hotline.	Surfrider Foundation, Kauai Chapter - Carl Berg	Kauai
Continue to model and forecast Japan Tsunami Marine Debris (Pacific Ocean).	University of Hawaii, Interational Pacific Research Center - Nikolai Maximenko	N. Pacific
Conduct education and outreach to partners for reporting marine debris to disasterdebris@noaa.gov, dl原因.marinedebris@hawaii.gov, and (808)587-0400.	NOAA Marine Debris Program, NOAA Humpback Whale Sanctuary, Dept. of Land and Natural Resources, City and County of Honolulu’s Dept. of Emergency Management	Statewide
<b>Strategy 1.3: Develop capacity and coordination mechanisms for marine debris removal</b>		
Design/build net collection bins and place them at harbors on the Big Island.	Hawaii Wildlife Fund -Megan Lamson	Hawaii
Evaluate the effectiveness of those bins.		
Conduct meetings with the Hawaii County Civil Defense and Department of Defense to investigate opportunities to build removal capacity for Hawaii County.		

Start a Japan tsunami debris response team (smaller items will be dealt with by volunteer groups).	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Develop a website/webpage on which to post a reporting forum and schedule cleanups.		
Continue to support marine debris surveys and removals in the Northwestern Hawaiian Islands.	NOAA Coral Reef Ecosystem Program	Northwestern Hawaiian Islands
Provide financial and logistical support for MD removal in the Northwestern Hawaiian Islands.	NOAA Marine Debris Program, NOAA Papahānaumokuākea Marine National Monument - Scott Godwin	Northwestern Hawaiian Islands
Provide coordination assistance with Japan Tsunami Marine Debris response agencies and organizations.	State of Hawaii, Dept. of Land and Natural Resources, NOAA Marine Debris Program, NOAA Papahānaumokuākea Marine National Monument - Scott Godwin	Statewide
Support planned response contingency planning workshops and efforts across the West Coast, Hawaii, and Alaska.	NOAA Marine Debris Program	National
Conduct coastal cleanups on Maui.	Hawaii Wildlife Fund	Maui
Conduct coastal cleanups on Kauai.	Surfrider Foundation, Kauai Chapter - Carl Berg	Kauai
<b>GOAL 2: Incidence of Illegal Discharge of Fishing Gear and Solid Waste at Sea Decreased</b>		
<b>Strategy 2.1: Conduct education and outreach to ocean users on marine protection laws, including laws to prevent pollution from ships, ocean dumping laws and proper waste management at sea</b>		
Research implementing an Ocean Protection and Cultural Awareness (OPACA) program for Kauai.	County of Kauai	Kauai
Include marine debris information in the Ocean Protection and Cultural Awareness (OPACA) program.	County of Maui - Rob Parsons	Maui
Continue outreach to yacht sailors sailing from Oahu to the West Coast.	TransPacific Marine Debris Survey - James Callahan	N. Pacific
Research the possibility of Public Service Announcements about Japan Tsunami Marine Debris to target fisheries/boaters.	Sustainable Coastlines Hawaii - Kahi Pacarro	Statewide
Integrate waste management into existing outreach efforts and online reporting mechanisms.		
Conduct general education and outreach with local fishermen.		
Conduct education and outreach about MARPOL.	NOAA Marine Debris Program	Statewide

Refresh communication with cruise ship industry.	Hawaiian Islands Humpback Whale National Marine Sanctuary - Paul Wong	Statewide
Expand Ocean Awareness Training to other islands and partnerships.		
Continue to support mandatory boater education and promote boater hurricane and tsunami preparedness.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Boating and Ocean Recreation - Clifford Inn	Statewide
Research potential locations for marine debris storage at ports or harbors on Maui.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Boating and Ocean Recreation - Clifford Inn, County of Maui - Zeke Kalua	
Continue enforcement against illegal gill nets.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Conservation and Resource Enforcement	Statewide
Continue education and outreach to fisherman related to Derelict Fishing Gear, Marine Debris and the Port Reception Facility. Print instruction brochures in Vietnamese, Korean and English.	Western Pacific Regional Fishery Management Council (WPFMC) - Sylvia Spalding & Eric Kingma	Statewide
Expand distribution and posting of Fisherman Code of Conduct signs and posters at more harbors throughout Hawaii.		
Continue education and outreach about marine debris and community and education events.		
<b>Strategy 2.2: Provide low-cost and convenient disposal options for gear and solid waste</b>		
Continue to support the Honolulu Harbor Port Reception Facility for collecting Derelict Fishing Gear and Marine Debris.	Western Pacific Regional Fishery Management Council (WPFMC) - Sylvia Spalding & Eric Kingma	Honolulu
Continue to support and partner in the Hawaii Nets-to-Energy program.	NOAA Marine Debris Program	Statewide
Continue to support and partner in the Pier 38 port reception bin program.		
Support tour and fishing boats bringing nets ashore by picking up gear at the dock soon after arrival.	Surfrider Foundation, Kauai Chapter - Carl Berg	Kauai
<b>Strategy 2.3: Increase use of fishing materials and practices designed to reduce the impacts of marine debris</b>		
[None listed]	[None listed]	[None listed]
<b>Strategy 2.4: Strengthen marine protection laws, including ship pollution prevention and ocean dumping laws</b>		
[None listed]	[None listed]	[None listed]

<b>Strategy 2.5: Build capacity to monitor and enforce against illegal discharge of solid waste at sea</b>		
Continue to support legislation on reducing ocean dumping.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
<b>GOAL 3: Number of Abandoned and Derelict Vessels Decreased</b>		
<b>Strategy 3.1: Educate vessel owners on maintenance and maritime preparedness</b>		
Investigate mitigation for abandoned or derelict vessels with NASBLA to establish an abandoned and derelict vessel abatement fund through the legislature.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Boating and Ocean Recreation	Statewide
<b>Strategy 3.2: Develop capacity and coordination mechanisms for abandoned vessel removal and disposal</b>		
Investigate disposal options for abandoned vessels which may include county landfills or nonprofit organizations. Publish findings on organization websites and other suitable outlets.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Boating and Ocean Recreation	Statewide
Continue interagency coordination for addressing abandoned vessels.		
<b>Strategy 3.3: Develop sustainable funding mechanism and resources for vessel removal and disposal</b>		
[None listed]	[None listed]	[None listed]
<b>GOAL 4: Land-based Debris in Waterways Reduced</b>		
<b>Strategy 4.1: Conduct education and outreach targeted to specific audiences</b>		
Continue education and outreach at schools, universities and neighborhood meetings.	Hawaii Wildlife Fund - Megan Lamson	Hawaii
	Surfrider Foundation, Oahu Chapter	Honolulu
	Surfrider Foundation, Kauai Chapter	Kauai
	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Provide education and outreach on environmental services.	County of Kauai, Solid Waste Division	Kauai
Continue outreach events on single-use plastics, cigarette butts, and water bottles.	Surfrider Foundation, Oahu Chapter	Honolulu
Continue school and community organization outreach efforts, public service announcements, and cleanups.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu

Hold open house events at UH Manoa to showcase research (on Oahu, as well as a statewide focus).	University of Hawaii, International Pacific Research Center - James Potemra & Jan Hafner	Honolulu
Facilitate coordination of beach cleanup groups.	Surfrider Foundation, Oahu Chapter	Honolulu
	Sustainable Coastlines Hawaii, Kahi Pacarro	Honolulu
	Hawaii Wildlife Fund - Megan Lamson	Hawaii
	County of Maui - Rob Parsons	Maui
Continue outreach to yacht clubs.	Trans-Pacific Marine Debris Survey - James Callahan	N. Pacific
Continue education and outreach for schools. Continue to inform and support marine debris partners with MDP resources and materials.	NOAA Marine Debris Program	Statewide
Provide coastal zone management, measures, and mandates statewide.	State of Hawaii, Dept. of Business, Economic Development, and Tourism, Coastal Zone Management Program, Leo Asuncion	Statewide
Provide education for DOH employees (Clean Water Act).		
Incorporate marine debris into Maui Visitor's Center lectures, etc.	Hawaiian Islands Humpback Whale National Marine Sanctuary - Paul Wong	Statewide
Relay scientific information to community.	University of Hawaii, International Pacific Research Center- Nikolai Maximenko	Statewide
<b>Strategy 4.2: Improve effectiveness of stormwater permits</b>		
Continue to work on implementing e-permitting system for NPDES permits.	State of Hawaii, Dept. of Health	Statewide
Track implementation of CCH NPDES MS4 stormwater permit trash reduction plan requirements.	US EPA, Region 9 - Hudson Slay State of Hawaii, Dept. of Health	Statewide
<b>Strategy 4.3: Build capacity to enforce all appropriate laws to reduce land-based discharge of solid waste</b>		
Recommend the State Office of Planning follows proposed land-use conditions, pending review of the law.	State of Hawaii, Dept. of Business, Economic Development, and Tourism, Coastal Zone Management Program -Leo Asuncion	Statewide

Strategy 4.4: Employ structural controls and BMPs to prevent land-based debris from entering the ocean		
Implement coastal non-point pollution control systems (agriculture, forestry, marinas, wetlands) appropriated correctly.	State of Hawaii, Dept. of Business, Economic Development, and Tourism, Coastal Zone Management Program, Leo Asuncion	Statewide
Strategy 4.5: Increase coordination and targeted cleanups in watersheds and beaches		
Continue efforts to clean streams and beaches.	Hawaii Wildlife Fund - Megan Lamson & Cheryl King	Hawaii, Maui
	Surfrider Foundation, Oahu Chapter	Honolulu
	Surfrider Foundation, Kauai Chapter	Kauai
Develop a core general permit to increase the maintenance of city streams.	State of Hawaii, Dept. of Business, Economic Development, and Tourism, Coastal Zone Management Program -Leo Asuncion	Honolulu
Continue existing cleanup efforts and expand cleanups to watersheds/canals.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Continue efforts to clean harbor areas including the Ala Wai Small Boat Harbor (Sierra Club, Waikiki Yacht Club & NOAA (ICC site)).	NGOs	Honolulu
Develop a website/webpage on which to post a reporting forum and schedule cleanups.	Surfrider Foundation, Kauai Chapter	Kauai
	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
Continue engagement of OCCC workforce in cleanups.	City and County of Honolulu	Honolulu
Continue cleanup activities surrounding the Ala Wai booms.	State of Hawaii, Dept. of Land and Natural Resources, Div. of Boating and Ocean Recreation - Clifford Inn	Honolulu
Continue to partner and improve coordination among varying groups/agencies.	Surfrider Foundation, Oahu Chapter	Honolulu
	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
	County of Maui - Rob Parsons	Maui
Provide resources (e.g. educational materials and giveaways) for organizations and school groups to supplement beach cleanup efforts.	NOAA Marine Debris Program	Statewide

**Strategy 4.6: Decrease use of potential debris items**

Work with grocery stores to educate consumers on using reusable products.	Surfrider Foundation, Oahu Chapter Surfrider Foundation, Kauai Chapter - Carl Berg	Honolulu
Continue to support a Styrofoam ban. Introduce bills to County Councils.		
Use sustainable/reusable bags during clean-ups.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
	Surfrider Foundation, Kauai Chapter	Kauai
Provide education and outreach on the reduction of single-use plastic products.	Sustainable Coastlines Hawaii - Kahi Pacarro	Honolulu
	Surfrider Foundation, Oahu Chapter Surfrider Foundation, Kauai Chapter - Carl Berg	Kauai and Honolulu
Research the potential for a Waste to Energy facility on Maui.	County of Maui - Rob Parsons	Maui

# 2014 HI-MDAP Workshop Agenda: Honolulu, HI

July 22- 23, 8:30am - 4:00pm

**Workshop Goal:** Develop 2-year (2014-2015) activity plan that will support the goals and strategies of the Hawaii Marine Debris Action Plan.

## Workshop Objectives:

- Provide an opportunity for partners to share experiences and identify resources
- Identify challenges and gaps in the 2012-2013 activity plan
- Develop new short-term goals and actions for 2014-2015
- Find ways to increase communication and collaboration among partners

### Tuesday, July 22

8:30 - 9:00	Check-in and Breakfast Refreshments <ul style="list-style-type: none"> <li>• Guests sign-in at front door</li> <li>• Coffee and pastries and/or fruit will be provided in the cafeteria</li> </ul>
9:00 - 10:00	Session 1 - Welcome and Introduction <ul style="list-style-type: none"> <li>• Welcoming Remarks</li> <li>• Participant Introductions</li> <li>• Overview of workshop goal, objectives, and agenda</li> </ul>
10:00 - 10:15	Session 2 - Background <ul style="list-style-type: none"> <li>• HI-MDAP history</li> </ul>
10:15 - 10:30	Break
10:30 - 12:05	Session 3 - Sharing Lessons Learned to Date ( <i>Plenary</i> )
	PART 1: Presentations across four threat reduction goals
	Goal 1: Backlog of Marine Debris Reduced <ul style="list-style-type: none"> <li>• Coral Reef Ecosystem Division</li> <li>• Hawaii Wildlife Fund</li> </ul>
	Goal 2: Incidence of Illegal Discharge of Fishing Gear and Solid Waste at Sea Decreased <ul style="list-style-type: none"> <li>• Pacific Ocean Producers</li> <li>• United States Coast Guard</li> </ul>
	Goal 3: Incidence of Abandoned and Derelict Vessels Decreased <ul style="list-style-type: none"> <li>• DLNR</li> </ul>
	Goal 4: Land-based Debris in Waterways Reduced <ul style="list-style-type: none"> <li>• EPA</li> </ul>
	PART 2: Panelist Discussion
12:05 - 1:00	Lunch
1:00 - 1:50	Session 4 – Identify Gaps and Challenges ( <i>Small group exercise</i> )
1:50 - 2:50	Session 5 - Report Back to Plenary
2:50 - 3:00	Break
3:00 - 3:45	Session 6 – Analysis and Synthesis of Sessions 3 and 4 ( <i>Plenary</i> )
3:45 - 4:00	Daily Wrap-Up

### Wednesday, July 23

8:30 - 9:00	Coffee and Refreshments
9:00 - 9:30	Recap from Day 1
9:30 - 10:30	Session 7 – Generate Priorities ( <i>Small Group Exercise</i> ) <ul style="list-style-type: none"> <li>• What new challenges exist and what are the current priorities that need to be addressed within each goal?</li> </ul>
10:30 - 10:45	Break
10:45 - 12:00	Session 8 - Set Priorities ( <i>Plenary</i> ) <ul style="list-style-type: none"> <li>• Set the priorities for the next two-year action plan within each goal</li> </ul>
12:00 - 1:00	Lunch
1:00 - 2:00	Session 9 - Develop 2-year (2014-2015) activity plan ( <i>Small Group Exercise</i> )
2:00 - 3:00	Session 10 - Report Back to Plenary
3:00 - 3:15	Break
3:15 - 4:00	Session 11 - Review of Proposed 2-year Activity Plan ( <i>Plenary</i> ) <ul style="list-style-type: none"> <li>• Next steps?</li> </ul>
4:00 - 4:15	Closing Remarks

\*\*\*\*\*DAY ONE PAU\*\*\*\*\*

## 2014 HI-MDAP Workshop Representatives

Name	Organization
Andrea Kealoha	NOAA Marine Debris Program
Anna-Marie Cook	U.S. Environmental Protection Agency
Barbara Lee	Department of Land and Natural Resources
Barbara Wiedner	Kauai Surfrider
Bill Robberson	U.S. Environmental Protection Agency
Brad Stubbs	The Nature Conservancy
Catherine Spina	Hawaii Wildlife Fund
Chris Woolaway	Keep Hawaii Beautiful
Clifford Inn	Department of Land and Natural Resources
Dan Dennison	Department of Land and Natural Resources
David Hyrenbach	Hawaii Pacific University
Deborah Ward	Department of Land and Natural Resources
Gail Godenzi	Covanta Energy
Hudson Slay	U.S. Environmental Protection Agency
Jim Potemra	University of Hawaii
John Parks	NOAA Marine Debris Program
Josh Hekeka	Hawaii Coastal Zone Management Program
Kahi Paccarro	Sustainable Coastlines Hawaii
Kalani Quiocho	The Nature Conservancy
Kirsten Fujitani	The Nature Conservancy
Kyle Koyanagi	NOAA Marine Debris Program
LeeAnn Woodward	U.S. Fish & Wildlife Service
Mark Manuel	NOAA Coral Reef Ecosystem Division
Mark Marshall	Kauai Civil Defense Agency
Marty Smith	U.S. Coast Guard, D-14
Marvin Heskett	Oahu Surfrider
Mary-Lindsey Correa	Na Kama Kai
Megan Lamson	Hawaii Wildlife Fund
Neil Kanemoto	Pacific Ocean Producers
Nicole Chatterson	Kupu
Nikolai Maximenko	University of Hawaii
Nir Barnea	NOAA Marine Debris Program
Scott Godwin	NOAA Papahānaumokuākea Marine National Monument
Sonia Gorgula	Department of Land and Natural Resources
Zeke Kalua	Office of the Mayor, County of Maui



United States Department of Commerce

Penny Pritzker  
Secretary of Commerce

National Oceanic and Atmospheric Administration

Kathryn Sullivan, Ph. D.  
Under Secretary of Commerce for Oceans and Atmosphere  
Administrator, National Oceanic and Atmospheric Administration

National Ocean Service

Russell Callender, Ph. D.  
Acting Assistant Administrator for Ocean Services and Coastal Zone Management