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**Environmental Protection Agency  
Community Action for a Renewed Environment (CARE)  
Level 2  
Grantee Final Report**

**Grantee**

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## INTRODUCTION

The ultimate goal of this report is to document the activities and accomplishments performed by the Ka Wai Ola O Wai`anae (The Living Waters of Wai`anae) Project Team completed under the U.S. Environmental Protection Agency's, Community Action for a Renewed Environment (CARE) program. The Project Team represents a snapshot of the issues faced by the Native Hawaiian community in the State of Hawai`i; a community struggling against social, economic and environmental injustices that in many ways have taken away their sovereignty and sense of dignity as a people. Outside the State of Hawai`i, many are unaware of these injustices and Thus have an incomplete understanding of who the Native Hawaiians are, their history, their culture, or their traditional practices. As such, this report also seeks to provide a brief synopsis on the history of Native Hawaiians, along with their values that connect these indigenous people to their natural environment. In addition, this report gives voice to Native Hawaiians, who are currently not federally recognized as an indigenous people, nor have they been given parity with their Native American or Native Alaskan counterparts. By reading this paper, the Ka Wai Ola O Wai`anae Project Team hopes to inform those who have no experience in working with Native Hawaiian communities to learn from their efforts in how to engage the community and effect change for the betterment of those communities.

## ACCOMPLISHMENTS

Listed below are the accomplishments of the CARE Level 2, Ka Wai Ola O Wai`anae project.

- Produced culturally appropriate video documenting the disconnectedness of the Hawaiian people from the land, resulting in problems with illegal dumping and nonpoint source pollution. The video also depicts what Ka Wai Ola O Waianae project team is doing to mitigate these issues.
- The Ka Wai Ola O Wai`anae Project Team was empowered to mitigate pollutants impacting the stream and ocean environments by following a cyclical framework consisting of the Four Es:
  - ENGAGE the multigenerational community to participate in one of the task forces.
  - EDUCATE the community on the impacts of pollutants on the environment.
  - EXECUTE activities to promote behavior change that reduces pollutants.
  - EVALUATE progress toward success, with the ultimate goal of empowering the Project Team to sustain the life of the Ka Wai Ola O Wai`anae project beyond EPA funding.
- The Project Team developed partnerships with 18 organizations and several individuals, while overcoming barriers to partnership development such as distrust, economics and time.
- Used social media site Facebook to increase awareness and educate the community on issues related to illegal dumping and nonpoint source pollution. By the end of the grant period, the Ka Wai Ola O Wai`anae had over 500 “Likes.”

### Residential Illegal Dumping Task Force

- Developed the brochure *Keep Waianae Clean—Proper Trash Disposal*, which detailed Wai`anae-specific information on the disposal of trash at the City & County of Honolulu convenience center and bulky item pickup services. It also provided phone numbers for reporting illegal dumping of trash.
- Produced a public service announcement on the use of the Wai`anae Convenience Center, which was shown on `Ōlelo public television.
- Implemented a cigarette butt campaign at an elementary school that resulted in 99 students and 4 teachers increasing their knowledge of the impacts of cigarette butts on the environment and signed a pledge to share this information with two other people. Seventy-six cigarette butt cans went home with students where friends/family who smoke, properly disposed of over 2,100 cigarette butts in the cans.
- Over 200 people (primarily youth) from 8 community organizations and the community in general participated in a sign waving rally to promote pride in caring for the land and to stop illegal dumping. 186 of these people signed a pledge stating they recognize the need to take ownership and responsibility for their resources. Over 250 motorists read signs as they drove by the rally. The event was televised on two news channels.
- Implemented the Youth Mentee Program, whereby 4 high school students developed their leadership skills by planning and executing beach cleanups.
- To stop illegal dumping along beaches, 223 people from the community and 7 partner organizations conducted 14 beach cleanups to reduce environmental risks by removing 65 bags of trash from four beaches—Nānākuli, Ma`ili, Poka`i Bay and Mākaha.

- Partnered with Sustainable Coastlines Hawai'i in support of the International Coastline Cleanup Day event in September 2013, whereby 270 people from the Waianae Coast community picked up 1,300 pounds of trash from Nānākuli, Ma`ili, Poka`i Bay and Mākaha Beaches!

#### Nonpoint Source Pollution Task Force

- Hosted a workshop on integrated pest management, teaching 6 produce farmers how to minimize use of pesticides.
- Hosted a workshop on inoculated dry litter systems, teaching 16 pig & other farmers how to manage farm waste that meets new federal regulations.

#### Commercial Illegal Dumping Task Force

- Served on the Tire Task Force, established by legislation in 2012 and directed by Hawai'i Department of Health, Solid Waste office, to study ways to prevent or control the problem of abandoned tires that litter Oahu.
- Implemented a drive-around program where task force members drove around areas known for illegal dumping. Task force members reported 4 incidents of illegal dumping to the City & County of Honolulu illegal dumping hotline. Also, 3 community members were educated on how to reduce pollutants in the environment by properly disposing of their waste.

#### Sustainability

Members of the Ka Wai Ola O Wai`anae project have partnered with the nonprofit organization Mohala I Ka Wai (meaning *People thrive where conditions are good*). These two organizations have a mutually beneficial relationship in that the staff of Mohala I Ka Wai will provide their nonprofit experience and organizational structure, while the personnel of Ka Wai Ola O Wai`anae will bring skills and experience in youth engagement, partnership development and social media/online exposure. The Ka Wai Ola O Wai`anae team will focus more on educating their community to prevent dumping from happening in the first place, empowering those who witness dumping to report it and continue building capacity with our partners.

One of the advisory committee community members was selected to serve on EPA's National Environmental Justice Advisory Committee (NEJAC), beginning September 2013.

## SUMMARY

Pacific American Foundation was awarded two cooperative agreements from the U.S. Environmental Protection Agency under its Community Action for a Renewed Environment (CARE) program in 2008 (CARE Level 1) and 2011 (CARE Level 2). This report documents the Level 2 work and results accomplished by the Ka Wai Ola O Wai`anae (The Living Waters of Wai`anae) Project Team located in the Wai`anae Coast community on the island of Oahu, Hawai`i. The Project Team was made up of the project director, the advisory committee, four task force coordinators and one communication coordinator. The goal of the Ka Wai Ola O Wai`anae Project Team was to mitigate pollutants related to residential and commercial illegal dumping and nonpoint source pollution by following the framework of the four Es: 1) *Engaging* the community to participate in task force activities; 2) *Educating* the community on the impacts of pollutants on the environment; 3) *Executing* activities that reduce pollutants; and 4) *Evaluating* progress toward success. The ultimate goal was to empower the Project Team to sustain the life of the project beyond the EPA funding.

Traditionally, the Native Hawaiians' cornerstone for survival and sustainability was its connection to the `āina (land) and wai (water) within the ahupua`a (watershed). Everything the Native Hawaiians needed for survival was contained within the ahupua`a. The people believed that "if we take care of the `āina, the `āina will take care of us," reflecting the Hawaiian tradition of mālama `āina (caring for the land). During the 1700's and 1800's, however, Native Hawaiians became disconnected from the `āina because of Western influences that were antithetical to traditional Hawaiian practices. These Western influences resulted in the modernization and urbanization of Hawai`i, causing pollution that negatively impacted the life and health of the environment. Fortunately, through a process of restorative environmental justice, Native Hawaiians have been able to integrate community history, political identity and socioeconomic and cultural needs in defining environmental problems – giving Native Hawaiians a measure of sovereignty lost over a century ago.

Today, this disconnectedness of the Native Hawaiians from the `āina (land) has resulted in a lack of mālama `āina (care for the land), which is apparent along the Wai`anae Coast with the illegal dumping of trash along beaches and roadways and back in the valleys, along with nonpoint source pollution resulting from pesticide use by farmers. The CARE grant provided an opportunity for the Wai`anae Coast community to not only mitigate pollutants resulting from trash and nonpoint source pollution, but to reconnect them to their traditional value of mālama `āina. The Ka Wai Ola O Wai`anae Project Team was empowered to meet the CARE Level 2 requirements and project outcomes, in addition to mālama `āina, by following the framework of the four Es, as described below.

### **Empowering through Community Engagement**

Each of the four task forces established active and critical partnerships. These partnerships provided meeting spaces, task force participants, advice on specific issues or laws, media support, training and networking opportunities. Developing these partnerships, however, often proved difficult due to barriers of distrust, economics and time. The issue of distrust is caused by organizations that come into the Wai`anae Coast community, use the community resources, but provide nothing in return. By continually engaging community members and expanding



networks, the Project Team was able, over time, to overcome this issue of distrust. The economic conditions of the community affected community engagement, as many people in this low-income community work two to three service-industry jobs to meet their financial obligations. They simply do not have time to participate in task force activities. To overcome these barriers, the Residential Task Force Coordinators in particular engaged youth, who have more time and interest to participate in task force activities.

To engage the Wai`anae Coast community on a broad level, the Communication Coordinator used a Facebook page to communicate task force activities and educate the community on pollutant issues related to their community. In addition, the Communication Coordinator produced a project documentary, developed a public service announcement on how to use City & County of Honolulu resources to dispose of trash, published stories in the local community newspaper, presented at community meetings and did television interviews.

### **Empowering through Community Education**

The Project Team and task force participants were empowered to implement pollutant reduction strategies by being educated on understanding how their actions on the `āina (land) impact the quality of the wai (water), where they recreate in and subsist from. The Residential Illegal Dumping Task Forces focused on reducing illegal disposal of trash on beaches by educating beach cleanup participants on the impacts of cigarette butts, bottle caps and other debris in the environment. The Task Force Coordinators developed and distributed a brochure on how to use City & County of Honolulu trash disposal services. In addition, these task forces partnered with a 5<sup>th</sup> grade class to educate students and their families on the most littered item in the world – cigarette butts. The students decorated cans and filled them with sand so that family members could properly dispose of their butts.

The Commercial Illegal Dumping Task Force implemented a drive-around program where they would engage truckers and businesses to educate them on the need to follow laws that promote a clean and healthy environment. They also actively reported instances of illegal dumping. In addition, the trucking community noticed the problem of some truckers illegally disposing of commercial debris in back valleys of the community, so they took responsibility to police their own by preventing illegal dumpers from obtaining hauling and disposal contracts.

The Nonpoint Source Pollution Task Force hosted two workshops to educate farmers on natural farming techniques. The first workshop focused on Integrated Pest Management that targeted vegetable and fruit farmers, with the aim of reducing pesticide use in their farming practices. The overall intent was to feasibly control pests while decreasing the negative impact on the environment and human health. The topic of the second workshop was Inoculated Dry Litter Systems, which utilizes indigenous microorganisms to hasten the decomposition of pig waste, thereby eliminating the need for pig-waste reservoirs.

### **Empowering through Executing Community-based Activities**

The Project Team and task force participants were not only empowered to implement pollutant reduction strategies through education, but also by executing community-based activities. This enabled participants to learn by doing. The primary activities (ouputs) for the Residential Illegal Dumping Task Forces were to conduct monthly beach cleanups, rotating among four beaches:



Nānākuli, Ma`ili, Pokai Bay and Mākaha. These task forces sought to reduce the amount of trash thrown on beaches by community members by modeling positive behavior (beach cleanups), prompting the community to legally/properly dispose of trash. At each of the cleanups the Task Force Coordinators: 1) shared cultural history of area to promote kuleana (responsibility) to mālama `āina (care for the land); 2) educated participants on the impacts of trash on the environment through the use of a Knowledge Test; and 3) distributed the brochure *Keep Wai`anae Clean* to adult beach cleanup participants and people camping on the beaches to promote proper dumping of trash and reporting of illegal dumping.

The Commercial Illegal Dumping Task Force Coordinator initially planned a roundtable in partnership with the City & County of Honolulu Illegal Dumping Coordinator. The purpose was to discuss with and educate on illegal dumping issues. Due to distrust, however, the truckers would not participate. So the task force implemented a drive-around program where they would drive to back valley areas where illegal dumping often occurs, reporting any instances of illegal dumping to the City & County of Honolulu. Also, the Task Force Coordinator served on the Hawai`i Tire Task Force, established by legislation in 2012 and directed by the Hawai`i Department of Health to study ways to prevent or control the problem of abandoned tires that litter Oahu. The Tire Task Force is still meeting to determine next steps.

The Nonpoint Source Pollution Task Force Coordinator hosted two workshops on Integrated Pest Management and Inoculated Dry Litter Systems. The goal was for farmers to implement strategies they learned in these workshops, apply for government funding/assistance and/or develop conservation plans. Unfortunately, farmers did not commit to doing any of these actions, as they either found the technology difficult to implement or were unwilling to change their practices, for fear of risking loss of income.

### **Empowering by Evaluating for Success**

The Ka Wai Ola O Wai`anae Project Team used logic models to evaluate whether the engagement, education and executing of activities by each of the task forces mitigated pollutants in the environment and changed the community's behavior. The use of logic models empowered Task Force Coordinators to measure for results, thereby knowing they have achieved some level of success in their work to mālama `āina (care for the land).

The Residential Illegal Dumping Task Force conducted 14 beach cleanups across four beaches (Nānākuli, Ma`ili, Poka`i Bay and Mākaha). Two hundred and twenty three people from the community and seven partner organizations reduced environmental risks from trash by removing 65 bags of trash from four beaches. The long-term outcome was to reduce trash by at least 50% at each of the four beaches between the first and last beach cleanups. At Ma`ili Beach trash was reduced by 50%, Poka`i Bay Beach by 78% and Mākaha Beach by 67%. Nānākuli Beach reduction in trash could not be calculated because the cleanup area kept increasing to accommodate the increased number of participants, which is a good thing! These results show a definite achievement for both the environment and community. The other significant output for this task force was the participation of 99 fifth-grade students and four teachers in the Cigarette Butt Campaign. Of the 99 students who attended the educational session, 71 students took home cans that were then used by family and friends, who disposed of 2,140 cigarette butts.

Two outputs produced significant outcomes for the Commercial Illegal Dumping Task Force. Task force members participating in the drive-around program reported four incidents of illegal dumping to the City & County of Honolulu illegal dumping hotline. The short-term goal was to report 25 incidents of illegal dumping. In addition, as a result of the drive-around program, three community members were educated on how to reduce pollutants in the environment by properly disposing of their waste. The short-term goal was to engage and educate 10 people. It is unknown whether the reporting of the illegal dumping incidents resulted in the reduction of environmental risks.

The Nonpoint Source Pollution Task Force accomplished two of its three short-term outputs and outcomes. For the Integrated Pest Management (IPM) workshop, the Task Force Coordinator outreached to 37 produce farmers to attend the workshop; the goal was to outreach to 35. Out of the 37, six attended the workshop, gaining knowledge of IPM practices. No farmers implemented any of the IPM practices, developed a conservation plan, or applied for financial assistance. For the Inoculated Dry Litter System (IDLS) workshop, the Coordinator outreached to 40 pig and natural farmers to attend the workshop; the goal was to outreach to 40. Out of the 40, 16 pig and natural farmers attended the workshop. Of the attendees, one pig farmer applied for conservation planning assistance. Due to the lack of farmers taking the opportunity to implement IPM or IDLS practices, there were no reductions in environmental risks resulting from pesticides or pig waste.

In reflecting upon the work completed over the two-year grant, the Ka Wai Ola O Wai`anae Project Team believes their greatest challenge was developing partnerships, primarily due to the issue of distrust. On the other hand, the Project Team believes their greatest achievement was overcoming barriers to this distrust to effect change in people to mālama `āina (caring for the land). The Project Team persevered through the hard times, adjusting to on-the-ground conditions by trying new strategies based on community feedback. This process built capacity within the Project Team, improving their leadership skills and relationship with their community. Without the CARE program and support from the EPA staff, the Ka Wai Ola O Wai`anae Project Team would have not been able to accomplish all they did. Mahalo Nui Loa (Thank you very much) EPA for supporting us!

## MĀLAMA `ĀINA

### Traditional Hawaiian Values with Respect to the `Āina

The Native Hawaiians' cornerstone for survival and sustainability was its connection to the *`āina* (land) and *wai* (fresh water) within the *ahupua`a*. The *ahupua`a*—typically a wedge-shaped section of land that follows natural geographical boundaries (ridge lines and rivers) and runs from the mountains to the sea (much like a watershed)—was significant in day-to-day living (Kame`eleihiwa, 1992). Everything the Native Hawaiians needed for survival was contained within the *ahupua`a*. The most significant aspect of the *ahupua`a* was the flow of *wai* from the mountain to the sea. The *wai* fed the upland forests and farms, which in turn brought nutrients to the coastal fishponds before reaching the sea. The *wai* was also important for the coastal fishponds in creating a harmonious ecosystem that could sustain many future generations of Hawaiians.

In the traditional *ahupua`a* management system, a hierarchy of chiefs, land stewards and commoners administered and cultivated the *`āina* (land). “Communal access to *`āina* (lit., that from which one eats) meant easy access to the source of food and implied a certain generosity in the sharing of resources” (Kame`eleihiwa, 1992, 9). Generosity is the hallmark of Hawaiian society; a willingness to share one's *waiwai* (wealth).

Native Hawaiians believed that the *`āina* (land) came from *akua* (gods) and as such, belongs to the *akua*. People did not own the *`āina*, but stewarded it for the benefit of all people. Though the *`āina* could be transferred from person to person, it could never be bought or sold. Stewardship meant that the *ali`i nui* (land chiefs who were equated to *akua* on earth) had to maintain *lokahi* (harmony) for the *maka`āinana* (commoners) by keeping the *`āina* fertile and appeasing the *akua*. In return, the *maka`āinana* fed and clothed the *ali`i nui* by cultivating the *`āina* (Kame`eleihiwa, 1992). Anecdotally, this reciprocal relationship between the people and the *`āina*—“if we take care of the *`āina*, the *`āina* will take care of us”—reflected the Hawaiian traditions of *mālama `āina* (caring for the land) and *aloha `āina* (love for the land).

### The Disconnection of Hawaiians from the `Āina

The arrival of Captain Cook in 1778 and the subsequent arrival of other Westerners forever altered the culture and practices of the Hawaiian people—resulting in their “disconnectedness” from the *`āina* (land). This brief synopsis only serves to highlight the many detailed and complex views of how the Native Hawaiians became disconnected from the *`āina* through the abolishment of their religion, the arrival of the missionaries, the 1848 *Māhele* and the eventual overthrow of the Kingdom of Hawai`i.

Native Hawaiians practiced the religion called *`aikapu*, which is the belief that everyone has their proper place in society. For example, this included the separation of the sexes during eating and the separation of the *ali`i nui* (land chiefs) from the *maka`āinana* (commoners). The breaking of the *`aikapu* resulted in death (Kame`eleihiwa, 1992). Upon their arrival, the Westerners violated the *`aikapu*, by allowing men to eat with the women, thereby undermining what Hawaiians considered *pono* (moral). This then led the *ali`i nui* and *maka`āinana* alike to question the *`aikapu* and break their own rules. In November of 1819, the *ali`i nui* on the island of Maui

abolished the `aikapu, thereby, abandoning the traditional religion that ordered the Hawaiian society (Kame`eleihiwa, 1992).

Five months after the abolishment of the `aikapu, the first missionaries arrived in Hawai`i to present a new religion to the ali`i nui (land chiefs). The missionaries considered the Native Hawaiians to be uncivilized and were determined to teach them new rules of what is meant to be pono (moral and proper). For example, the missionaries forbade the practice of *hula*, the traditional form of dance and storytelling. These new rules sowed seeds of self-doubt about the worth of the Hawaiian people and their culture (Kame`eleihiwa, 1992).

By the mid-1800s, Western influence gave birth to a paradigm shift in the Hawaiian Islands that allowed `āina (land) to be privatized. Specifically, the 1848 Māhele was the legal mechanism by which the traditional Hawaiian system of sharing control and use of the `āina was replaced by private ownership using a capitalist model. This division of communal rights into individual portions meant that the ali`i nui (land chiefs) no longer had the legal right to direct the maka`āinana (commoners) to cultivate the `āina for the benefit of the community; nor could the maka`āinana look to the ali`i nui for protection. In turn, the Māhele meant a certain denial of access to food for the Native Hawaiians (Kame`eleihiwa, 1992). The “Great Māhele,” by which it is known today, represented a strategic shift in how Native Hawaiians related to the `āina. From a communal, political and economic standpoint it was a major shift from an agrarian society to a market economy.

The market economy model coupled with the unfamiliarity of language and practices of Western capitalism led to a rapid dispossession of ownership of `āina in Hawai`i. This rapid grab for `āina, power and influence eventually led to the January 1893 overthrow of the Kingdom of Hawai`i by the Westerners; all for the purpose of protecting their economic enterprises. In 1993, President Clinton signed a letter of apology to the Hawaiian people for this egregious act by the United States (Aloha Quest, n.d.). To date, Native Hawaiians have yet to be recognized as an indigenous people by the federal government and have not been given parity with their Alaskan Native and Native American counterparts.

In summary, the abolishment of the `aikapu, arrival of the missionaries, the 1848 Māhele and ultimately, the overthrow of the Kingdom of Hawai`i – began the process of physically, emotionally and spiritually disconnecting the Native Hawaiians from the `āina. This disconnectedness eventually resulted in a lack of mālama `āina, whereby the people no longer provided stewardship over the `āina as a dependent and finite resource.

### **Native Hawaiians Getting Back to Mālama `Āina**

The 1848 Māhele started the momentum of modernizing and urbanizing Hawai`i. Lands and waters once used for survival and sustainability were developed for residential, commercial, agricultural and flood-control purposes. This development occurred without regard for traditional wisdom or practices, resulting in pollution that negatively impacted the life and health of the environment. Thus the Native Hawaiians have faced – and continue to face – many environmental justice issues. Yet, the Hawaiian people are striving to get back once again to mālama `āina (caring for the land), as stated in the Hawai`i state motto, “Ua mau ke ea o ka `āina i ka pono,” meaning, “the life of the land is perpetuated in righteousness” (Hawai`i Legislative

Reference Bureau, 2011). Generally, Native Hawaiians are getting back to mālama `āina through restorative environmental justice and the development of the Hawai`i Environmental Justice Initiative.

### **Restorative Environmental Justice**

Environmental justice, as defined by the U.S. Environmental Protection Agency (EPA), is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies” (EPA, 2013). This model of environmental justice typically focuses on the siting of pollution-producing facilities near minority and/or low-income communities. It furthers environmental justice by providing these communities with tools to effectively advocate for the siting and health outcomes they seek. This model, however, fails to comprehend the complex issues of Native Hawaiians’ (and other indigenous peoples’) cultural connection to the `āina (land). “It disregards the history of Western colonization and indigenous groups’ ongoing attempts to achieve cultural and economic self-determination.” Ultimately, “it is the denial of group sovereignty – the control over land and resources for the cultural and spiritual well-being of a people” (MacKenzie, Serrano and Kaulukukui, 2007, 38). This right to self-determination is supported by Article 3 of the UN Declaration on the Rights of Indigenous Peoples (United Nations, 2008, 4) that states, “[I]ndigenous peoples have the right to self-determination [to] freely pursue their economic, social and cultural development.” Nationally, the application of the Indian Civil Rights Act (ICRA) of 1968 and associated case law promotes tribal (and indigenous people) sovereignty whereby tribal courts apply tribal law to tribal disputes. Recognition of due process under ICRA provides a foundation for its application in the environmental regulatory setting, “and should be used as a guide for implementing tribal environmental acts and regulations” (National Environmental Justice Advisory Council, 2004, 9).

To achieve cultural and economic self-determination, MacKenzie and colleagues posit a new model of Native Hawaiian “restorative environmental justice.” In general, “[r]estorative processes bring those harmed by crime or conflict and those responsible for the harm, into communication, enabling everyone affected by a particular incident to play a part in repairing the harm and finding a positive way forward” (Restorative Justice Council, 2013). Similarly, Braithwaite (2004, 28) defines restorative justice as “a process where all the stakeholders affected by an injustice have an opportunity to discuss how they have been affected by the injustice and to decide what should be done to repair the harm.” When applying restorative justice to environmental issues impacting indigenous people, the indigenous people are afforded the opportunity to incorporate cultural values and practices into the repairing of the harm to both the people *and* the land. MacKenzie and colleagues promote this new model of restorative environmental justice, which focuses on “doing justice through reclamation and restoration of land and culture” (2007, 38). Restorative environmental justice expands the focus beyond discrimination and ill health by “integrat[ing] community history, political identity and socioeconomic and cultural needs in defining environmental problems and fashioning remedies” (ibid) – giving Native Hawaiians a measure of sovereignty lost more than a century ago.

Since the mid-1970s, Native Hawaiians have been working to regain control over the management of their `āina (land) and resources. Though there are several examples where



restorative environmental justice is applied by Native Hawaiians, the reclamation of the island of Kaho`olawe is presented here.

### **Reclaiming and Restoring Kaho`olawe**

The smallest of eight islands in the Hawaiian archipelago, Kaho`olawe was dedicated to Kanaloa – the god of ocean, ocean currents and navigation – by Native Hawaiians centuries ago. The island supported Native Hawaiians skilled in astronomy, navigation, fishing and adz (tool made from rock) making. In addition, the island’s western tip served as a navigational point between Hawai`i and the South Pacific. In the 1800s, Western colonialism brought uncontrolled sheep ranching and grazing, causing massive erosion and environmental degradation. In the 1920s, the U.S. military began using Kaho`olawe for aerial bombing target practice. From World War II to 1990, the U.S. government banned all civilian access and Hawaiian cultural practices on the island so that the navy could use it for bombing practice. This caused massive damage to numerous cultural sites and natural resources (MacKenzie et al., 2007)

In the 1970s, a group of Native Hawaiians founded Protect Kaho`olawe `Ohana (family), an organization dedicated to stopping the bombing of the island and reclaiming it for the Hawaiian people. After many years of lawsuits and actions by Protect Kaho`olawe `Ohana, President Bush finally halted the bombing in 1990. The United States transferred title of the island to the state in May 1994 and established a joint venture between federal and local government entities to restore Kaho`olawe. The navy declared the island’s cleanup complete in 2004, having removed ten million pounds of metal (although the cleanup fell short of the promised 100 percent surface and 30 percent subsurface clearances). Eventually, the control of Kaho`olawe was transferred to the Kaho`olawe Island Reserve Commission (KIRC). Though KIRC has authority over all actions on the island, it works in partnership with Protect Kaho`olawe `Ohana, which is the official steward of the island (MacKenzie et al., 2007).

To restore and perpetuate the management of the island and its resources to the Native Hawaiians, four purposes and uses of Kaho`olawe were made part of Hawai`i law. These purposes briefly include: 1) the preservation and practice of Native Hawaiian rights for cultural, spiritual and subsistence purposes; 2) preservation of the islands archaeological, historical and environmental resources; 3) rehabilitation of natural habitat; and 4) preservation and education. Today, the island continues to be protected and preserved as a result of “hard fought efforts to restore Native Hawaiians a measure of self-determination, cultural restoration and economic self-sufficiency” (MacKenzie et al., 2007, 79).

### **Hawai`i Environmental Justice Initiative**

In 2006, Act 294 was enacted to develop an environmental justice guidance document to ensure that principles of environmental justice were systematically included in all phases of the environmental review process (State of Hawai`i Department of Health, 2008). The outcome of Act 294 was the *Hawai`i Environmental Justice Initiative Report* (Initiative). The purpose of the Initiative was to define environmental justice in the unique context of Hawai`i through community input and to develop a guidance document that addresses environmental justice in all phases of the environmental impact statement process (State of Hawai`i Department of Health, 2008). The Initiative’s resultant definition of environmental justice for Hawai`i is:

The right of every person in Hawai`i to live in a clean and healthy environment, to be treated fairly and to have meaningful involvement in decisions that affect their environment and health; with an emphasis on the responsibility of every person in Hawai`i to uphold traditional and customary Native Hawaiian practices that preserve, protect and restore the `āina for present and future generations. Environmental justice in Hawai`i recognizes that no one segment of the population or geographic area should be disproportionately burdened with environmental and/or health impacts resulting from development, construction, operations and/or use of natural resources.

A key aspect of this definition is that it not only takes into account the restorative aspect of environmental justice proposed by Mackenzie and colleagues (2007), but it also adds an element of personal responsibility by all people in Hawai`i to mālama `āina – caring for the land.

Another key aspect of environmental justice in Hawai`i recognizes that the racial composition of the Hawai`i population differs greatly from that of the United States as a whole. Whites represent a clear majority in the United States, accounting for 78.1 percent of the population; followed by Asians at 5 percent and Native Hawaiians and Pacific Islanders at 0.2 percent. In contrast, each racial group in Hawai`i is represented by less than half of the state population; Thus all racial groups represented in Hawai`i are considered a minority population. The largest racial group (from those who reported only one race) in Hawai`i is Asian at 38.5 percent, followed by white at 26 percent and Native Hawaiians and Pacific Islanders at 10 percent (U.S. Census Bureau, 2012).

So, 1) taking into account the fact that all racial groups in Hawai`i are considered to be a minority; 2) recognizing the need to place special emphasis on Native Hawaiians (the host culture); and 3) recognizing that the traditional definition of environmental justice applies to both minority and low-income populations – the Initiative proposed a continued focus on minority and low-income populations, with a special emphasis on the Native Hawaiian population, as the target or underrepresented populations for environmental justice efforts in Hawai`i.

Though the modernization and urbanization of Hawai`i has negatively impacted Native Hawaiian's cultural connection to the `āina (land), Hawaiians are getting back to mālama `āina (caring for the land) through reclamation and restoration of `āina and culture. The restorative environmental justice model incorporates community history and cultural needs in defining environmental problems and remedies. The environmental justice definition for Hawai`i places an emphasis on the responsibility of every person in Hawai`i to uphold traditional Native Hawaiian practices to preserve, protect and restore the `āina for future generations.

Detailed in the following text is a current example of how one community facing environmental justice issues was empowered to get back to mālama `āina (caring for the land) with assistance from the U.S. Environmental Protection Agency, Community Action for a Renewed Environment program.



## EMPOWERING THE WAI`ANAЕ COAST COMMUNITY

### Purpose

Pacific American Foundation (PAF), whose specific mission is to improve the lives of Pacific Americans ([www.thepaf.org](http://www.thepaf.org)), was awarded two cooperative agreements (grants) from the U.S. Environmental Protection Agency (EPA) under its Community Action for a Renewed Environment (CARE) program in 2008 (CARE Level 1) and 2011 (CARE Level 2). **The purpose of Section II is to document the results of the CARE Level 2 work, according to the CARE grantee final report outline (included under Attachments).** The final report outline includes five sections:

- I. Describe the CARE partnership and explain how it operated.
- II. Describe the CARE project.
- III. Reflections on the achievements and challenges of the CARE project.
- IV. Describe next steps on how the CARE work will be sustained.
- V. Provide feedback and follow up to EPA

Sections I and II of the final report outline are addressed within the framework of the four E's (described under subsequent section heading, *Empowering through the Four E's*). To assist EPA in identifying particular text that addresses required final report content, the text is underlined, followed by the section number (I or II) and the letter of the question in the outline under that specific purpose, in parentheses. For example, A list of the most active and/or critical partners of Ka Wai Ola O Wai`anae and their respective roles are listed in the table below (I.a, b, c, d), addresses the first four questions (a-d) under "I. Your Partnerships" in the grantee final report outline. Responses to questions in Section III through V are addressed under subsequent sections, one by one, as presented in the final report outline.

With a vision to assist and empower the Native Hawaiians, PAF focused their efforts of the CARE grants on the Wai`anae Coast community of Oahu. Prior to the awards of these grants, PAF had not engaged in programs similar to CARE (I.j). As detailed below the Wai`anae Coast community has faced many environmental justice issues and Thus it was believed they would benefit greatly from the CARE program.

### Background Information on the Wai`anae Coast

#### Geography

The `āina (land) of the Wai`anae Coast community (located on the island of O`ahu) is strongly defined by natural geologic and topographic forms of steep-walled valleys. Most of the urban and suburban development along the Wai`anae Coast occurs in a narrow swath along the Farrington Highway corridor, which runs parallel to the coast. The valleys are largely agricultural or military lands and the steeper ridges and mountains are generally undeveloped grasslands and forestlands. There are nine ahupua`a along the Wai`anae Coast; four of which are the most populated—Nānākuli, Lualualei, Wai`anae and Mākaha.



**Population**

The Wai`anae Coast community consists of a high percentage of minority and low-income populations. According to the U.S. Census Bureau (2012), the Wai`anae Coast communities of Nānākuli, Ma`ili, Wai`anae and Mākaha (which are located in Nānākuli, Lualualei, Wai`anae and Mākaha ahupua`a, respectively) have a total population of 43,609. The average percentage of Native Hawaiians or other Pacific Islanders (based on race alone or in combination with one or more other races) living in these communities is 67 percent. The average percentage of families whose income in the last twelve months is below the national poverty level is 19 percent. In addition, while some Wai`anae Coast residents struggle with unemployment and poverty, getting by on little money has long been part of the way of life. As such, families have traditionally supplemented low incomes with subsistence farming and fishing.

**Environmental Injustices**

In addition, the Wai`anae Coast community is disproportionately impacted by the placement of a power plant, an industrial park, a solid-waste landfill at the gateway to the community; and a construction-debris landfill and several former and current military-use areas within the community. Thus this primarily Native Hawaiian and low-income community is impacted by pollutant-producing facilities and industries, which epitomizes an environmental injustice area. No other community on the island of O`ahu bears this type of disproportionate environmental impact. In many ways, the Wai`anae Coast community has been disproportionately impacted by these industries because they lacked a voice in the political process to stop industry development. Sapolu (2009, 225) states, “[N]umerous community members have expressed a frustration in their attempts at finding relief by appealing to elected public servants,” and they are “frustrated by the failure of proposed measures in the state legislature that would grant relief to their communities.” To get back to mālama`āina, the Wai`anae Coast community needed to be empowered to determine for themselves how to overcome these environmental injustices.

### Implementing the CARE Process

The CARE program follows a four-step process: 1) bring together stakeholders to form a broad-based partnership; 2) identify problems and solutions to reduce pollutant risks; 3) implement solutions through programs and partnerships; and 4) build project sustainability beyond the grant funding. Steps 1 and 2 were accomplished during the CARE Level 1 process in 2008-2010 and are only briefly highlighted here for continuity. To ensure a community-driven process with broad-based partnership an Advisory Committee made up of community members, PAF staff and EPA was formed. The advisory committee followed the CARE four-step process as a tool to reach agreement on implementation decisions (II.d).—to identify problems and solutions by assessing the risks from pollutants in the stream and ocean environment and consider options for reducing those risks. Then implement actions to reduce pollutants impacting the stream and ocean environment.

To identify problems (CARE Level 1), the Advisory Committee asked itself, “What do we consider to be the biggest environmental issues along the Wai`anae Coast?” Their list of twelve items ranged from landfill leachate, to illegal dumping, to coral reef damage due to nonpoint source pollution, to rock and aggregate mining and to destabilization of slopes due to fires. With technical assistance from numerous partners including EPA, university, community college, private and government entities the advisory committee ranked the issues based on scientific and perceived impacts to human health, environment, society and economics. The Advisory Committee then prioritized issues based on the issues with which the community could affect the most influence, with the greatest benefit and with the least amount of funding. Subsequently, the committee prioritized three environmental issues for action to mitigate pollutants related to 1) residential illegal dumping (focus on cleaning up trash on beaches); 2) commercial illegal dumping resulting from truckers dumping commercial waste in valleys; and 3) nonpoint source pollution resulting from pesticide use, pig waste and sediment from the poorly maintained Wai`anae inactive landfill.

The Advisory Committee then developed a work plan, based on the use of task forces, headed by task force coordinators, to implement solutions to mitigate pollutants related to its top three environmental issues. Recognizing that the wai (water) is what brings life to the `āina (land), the advisory committee named their project *Ka Wai Ola O Wai`anae – The Living Waters of Wai`anae*.

Anecdotally, Wai`anae Coast Native Hawaiians have recognized that they too, have become disconnected from the `āina (land). The loss of the value of mālama `āina (to care for the land) is apparent in their behavior, such as residents throwing trash (illegal dumping) into community waters without knowledge of or concern for impacts to the environment upon which they subsist and live in. With the desire to renew the value of mālama `āina in their community, the Advisory Committee incorporated the following mission statement into the Ka Wai Ola O Wai`anae project:

*As members of the Wai`anae Coast community we recognize that we need to take ownership of our resources and be responsible for our actions that impact our health and environment. Although we as a community face many environmental justice issues, this action plan provides a means for us to form self-sustaining partnerships*

*and address environmental issues for the benefit of our community well into the future.*

In 2011, a CARE Level 2 grant was awarded to PAF to implement steps 3 and 4 of the CARE process, based on the work plan developed by the advisory committee. PAF hired community members from the Wai`anae Coast community to be task force coordinators in an effort to build capacity as community leaders. Two task forces were formed to address residential illegal dumping based on geography – one task force would cover Nānākuli and Ma`ili communities, the other task force would cover Wai`anae and Mākaha communities. The third task force addressed commercial illegal dumping and the fourth task force addressed nonpoint source pollution. In addition, one of the advisory committee members, who owns and operates her own photo and film production company, was hired to serve as Communication Coordinator to promote project activities. These five coordinators, the advisory committee and the project director made up the Project Team.

Sections I and II of the CARE grantee final report outline are addressed below, within the project’s framework of the Four E’s, as opposed to responding to each of report questions, one by one.

**Empowering through the Four E’s**

As described in the program documents, CARE projects are designed to empower communities to improve their environments. The Ka Wai Ola O Wai`anae Project Team set up a cyclical framework that empowered each task force and communication coordinator to mitigate pollutants impacting the stream and ocean environments; in addition to renewing their traditional values of mālama `āina (caring for the land). This framework is based on the Four Es:

- ENGAGE the multigenerational community to participate in one of the task forces.
- EDUCATE the community on the impacts of pollutants on the environment.
- EXECUTE activities to promote behavior change that reduces pollutants.
- EVALUATE progress toward success, with the ultimate goal of empowering the Project Team to sustain the life of the Ka Wai Ola O Wai`anae project beyond EPA funding.



How each of the four Es is being implemented to empower the community to get back to mālama `āina is presented in the following text.

**Empowering Through Community Engagement**

Partnership building began on day one when PAF went to community leaders to gain permission to apply for CARE grant funding for the benefit of the Wai`anae Coast community. Native Hawaiian protocol dictates that an “outsider” to a community (PAF is located on the east side of the island [see map on page 7] and had little previous experience in this community) seeks permission from the kupuna (elders) to engage and participate in their community with a project. With approval from the kupuna to pursue the Level 1 grant and approval from the Advisory



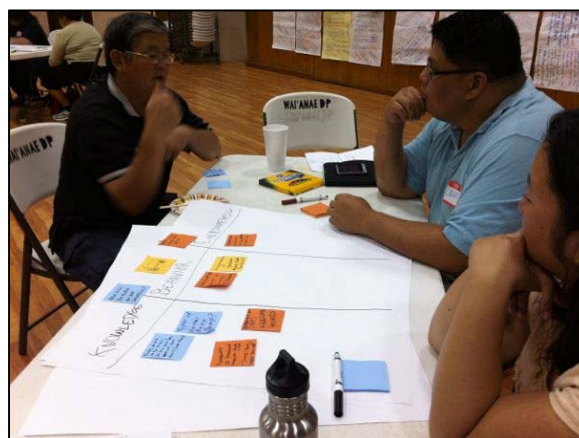
Committee to pursue the Level 2 grant, PAF worked to empower the Ka Wai Ola O Wai`anae participants and community at large to mitigate pollutants related to illegal dumping and nonpoint source pollution.

PAF recognized that empowerment takes time. The knowledge, skills and competencies required to execute this project existed in the community, but needed to be developed through capacity building. So, when interviewing Wai`anae Coast community members for task force and communication coordinator positions, PAF did not so much focus on skills or knowledge that could be taught, but evaluated applicants based on their willingness to perform the work, readiness and availability to meet demands of the project and ability to recruit community participants and coordinate activities.

The following skills were identified as the most important to implementing the project (I.b.).

- Outreach skills to develop partnerships and invite participants to task force activities.
- Networking skills to maintain current partnerships and the use of those partnerships to develop new partnerships.
- Collaboration skills enabled partners to work together to achieve common goals.
- Understanding local politics to avoid “stepping on anyone’s toes.”
- Planning and coordination skills that enabled task force coordinators to implement activities.
- Logistical skills to ensure all resources were available to successfully implement activities.
- Leadership skills to guide, direct and influence participants and partners in meeting project outcomes.
- Critical thinking skills to evaluate current conditions and challenges and then making adjustments to allow for successful outcomes.
- Being teachable enabled participants to learn new information, methodologies or technologies associated with carrying out task force responsibilities.
- Research skills to determine current laws & regulations associated with task force activities.

Once hired, coordinators focused their efforts on recruiting and partnering with multi-generational community members to participate on their respective task force. To facilitate the engagement process, two strategic-planning sessions were held to engage and galvanize the community to support the Ka Wai Ola O Wai`anae project. The first session focused on developing a vision for the Wai`anae Coast community based on the evolving work of the project. The second session focused on brainstorming and strategizing action items for each of the task forces to implement. Although the Project Team was already working from an EPA-approved work plan, the strategic planning sessions were used to refine that work plan and recruit members for the task forces. Unfortunately, commitment to participate on a task force was low because most people were simply



*Brainstorming ideas*

too busy working and taking care of home responsibilities to get involved (I.h.).

As a result, the Residential Illegal Dumping Task Force Coordinators felt like “silos,” working alone without assistance from fellow community participants. These coordinators were empowered to continue their efforts when allowed to join together their task forces to more effectively collaborate their activities (I.h.). In addition, the Nonpoint Source Pollution Task Force Coordinator found it difficult to recruit members for his task force because community members did not understand nonpoint source pollution, as one cannot visually see the pollution like trash that you may see laying on the beach or the side of the road. Fortunately, as discussed in a subsequent paragraph, one of the advisory committee members who has an agricultural background helped significantly on this task force (I.h.).

*“I thought the community meetings we had in the very beginning were great. It got together a group of people who cared about these issues and wanted to make changes. But it seemed that a lot of those people were too busy to make a real commitment to help. It was a little disheartening to see some of those individuals not really engage with us too much, but I understand the complexity of schedules.”*

Nonpoint Source Pollution Task Force Coordinator

**Active and Critical Partnerships**

The foremost critical partner was the Advisory Committee. At the completion of the Level 1 process, eight advisory committee members signed letters of commitment indicating their participation in the Level 2 process. Two of those members went on to become task force and communication coordinators; one moved to serve as an advisor to the Nonpoint Source Pollution Task Force; one moved out of the community; and three felt a calling to pursue other community responsibilities; thus leaving one member from the original eight. The Level 2 Advisory Committee consisted of one community member, four task force coordinators, the communication coordinator and the PAF project director.

A list of the most active and/or critical partners of Ka Wai Ola O Wai`anae and their respective roles are listed in the table below (I.a., b., c., d., & e.).

<b>Residential Illegal Dumping Task Force</b>	
<b><i>Partner</i></b>	<b><i>Role of Partner</i></b>
Leeward Kai Canoe Club	Provided location to meet for beach cleanups. Club members participated in numerous beach cleanups. Critical partner because canoe clubs are well respected in community.
Na Keiki O Ka Mo`i Canoe Club	Members participated in beach cleanups at Poka`i Bay towards end of grant. Critical partner we should have engaged earlier to aid in community outreach and communication.
Mākaha Canoe Club	Members participated in beach cleanups at Mākaha Beach towards end of grant. Critical partner we should have engaged earlier to aid in

	community outreach and communication.
Leihoku Elementary School	5 <sup>th</sup> grade class participated in the Cigarette Can Project
Waianae & Nānākuli Boys & Girls Clubs	Provided facilities for task force meetings. Students participated in beach cleanups.
Ho`omalulu O Na Kamalii	Foster care facility whose youth consistently participated in all beach cleanups.
Nānākuli High School	Football team participated in beach cleanup at Nānākuli Beach towards end of grant. Critical partner we should have engaged earlier to aid in community outreach and communication.
Nānākuli All Star After School Program	Members participated in beach cleanups at Nānākuli Beach.
City & County of Honolulu	Advised on the development of PSA on how to properly dispose of trash at Waianae Convenience Center, based on City & County laws.
West Side Stories	Community newspaper published articles on beach cleanup activities.
Sustainable Coastlines	Sponsored a Waianae Coast cleanup at 4 beaches, providing educational materials, cleanup supplies and after cleanup entertainment.
<b>Commercial Illegal Dumping Task Force</b>	
Olohana Service (fleet washer for trucking companies)	Active task force member Assisted in identifying laws related to trucking industry practices.
AC Services	Active task force member Assisted with making contacts in the trucking industry Provided services to install cable for surveillance camera.
City & County of Honolulu, Dept. of Environmental Services	Responsible for operating City & County Illegal Dumping Hotline. Assisted with understanding illegal dumping laws & protocols for reporting illegal activities.
Task Force Members	Individuals who actively participated in all facets of task force activities. Assisted in engaging with active or potential dumpers, educating them in proper disposal practices or reporting actions to C&C Honolulu Illegal Dumping Hotline.
<b>Nonpoint Source Pollution (NPSP) Task Force</b>	
Sacred Heart Catholic Church	Donated facility space for advisory committee & task force meetings. Member attempted to start a garden on church property using to train community on natural farming techniques. Member spent months preparing the land for indigenous microorganism (IMO), but the IMO technology did not work at this site.



Former advisory committee member	Critical member in identifying types of workshops to offer farmers, & connecting to key partners to facilitate workshops. Assisted with outreach to farmers.
Oahu Resource, Conservation & Development Council (Oahu RC&D), University of Hawai`i, Hilo	Coordinated two workshops, one on integrated pest management & one on inoculated dry litter system/Indigenous Microorganism for pig farms.  <i>“Oahu RC&amp;D was very helpful in putting together the workshops and bringing in all the experts to help the farmers. It was also helpful bouncing ideas off of her in the beginning when she was showing what workshops they have done in the past in other communities.”</i> NPSP Task Force Coordinator
Kahumana Farm	Provided facilities for the two workshops coordinated by Oahu RC&D. Played a critical role in assisting with outreach to local farmers. Provided technical advice on natural farming techniques.  <i>“Tom from Kahumana Farm was a great resource and a helped to provide a very welcoming environment every time we were on the farm and when we used the farm for workshops. Tom has been 100% open with us from day one and has tried to implement all the strategies from the workshops.”</i> NPSP Task Force Coordinator
City Council of Honolulu Representative	Assisted in identifying appropriate government agency to address issues regarding the Waianae inactive landfill.
Community Member	Member wants to be an inspiration to the community. He is working on creating and maintaining an IMO coop to support local farmers who want to implement natural farming techniques. He has created an oasis within his own yard using these techniques and continues experimenting with IMO. This partnership has the potential to sustain beyond the term of the Level 2 grant, what this task force started.
Wai`anae Farmer	Initiated contact with Kahumana Farms Introduced task force coordinator to use of IMO techniques
Large-scale organic farmer focused on growing educating young leaders in the community.	Critical partner not at the table due to time and commitment restraints.

***Engaging Vulnerable Members of the Community***

The Project Team worked to ensure that the most vulnerable members of the community were included in the partnership process (I.f.). Specifically, the Residential Illegal Dumping Task

Force identified two people groups that were vulnerable to the illegal disposal of trash on beaches: 1) beach users, both on the sand and in the ocean and 2) fisherman and their families who fish for subsistence. In general, beach users are the source of trash left on beaches, leaving items such as cigarette butts, plastic bottle lids and packaging. These items are washed by rain or blown by wind into the ocean, often eaten by fish and other marine life. Fishermen then bring home their catch, possibly contaminated by these pollutants, to serve as food for their families.

During beach cleanups, participants observed the impact of trash on the beach, having been oblivious to it in the past. Lisa stated, *“I did not realize it was that polluted with cigarette butts and I have been coming to the beach my whole life.”* Participants picking up trash on the beach served as a model to beach users to pick up their trash before leaving the beach (II.c.). During a cleanup event at Poka`i Bay, people on the beach commented, *“Thank you for keeping our beaches clean.”* One of the kids picking up trash asked, *“Why don't they help instead of thanking us Auntie?”* Great question! The kids picked up 465 cigarette butts and showed the people on the beach how many they found, explaining how they saved the turtles from eating these butts. The lifeguards and beach users were amazed at how many cigarette butts the kids found. One person said, *“From now on I am throwing my cigarettes in the can.”*

The Commercial Illegal Dumping Task Force offers a different perspective on identifying and engaging the people vulnerable to impacts of commercial illegal dumping (I.f.). Unfortunately, illegal dumping of trash, construction debris, tires, appliances, etc. along back roads of the Wai`anae Coast valleys is so common that people have become oblivious to its presence. In addition, they are unaware of any pollutants that might be released into the environment and potential impacts of those pollutants on their health. In the words of the Task Force Coordinator, *“The vulnerable do not even know they are vulnerable.”* As such, these people were not interested in partnering with this task force.

On the other extreme, a recent event involved a trucking company hauling dredge material from the marina of an affluent community and using it as fill material, without a permit, on the trucking company's property in Wai`anae Valley. The illegal dumping of this material came to light when the truck overturned its load on the highway. Wai`anae Coast community members protested in front of the trucking company's property, legislators demanded enforcement action from the government and national media outlets reported the event across the country. This is a textbook example of an environmental injustice and the community is stepping up to demand action.

Finally, The Nonpoint Source Pollution Task Force Coordinator identified three people groups that were vulnerable to pesticide use (I.f.): 1) farmers, 2) neighbors of farmers and, 3) agriculture consumers. Anecdotally, many farmers have limited English-speaking skills and tend to be distrusting of “outsiders” visiting their farms. These farmers live from crop to crop, making small profit margins. These farmers use pesticides because it is the only method they know; thus they (more than likely) are unknowingly creating nonpoint source pollution. They are a group of people unwilling to change to natural farming techniques, for fear they will lose their livelihood.

The use of pesticides has an impact on neighbors of farmers and community members who take their family's health more seriously, in terms of being careful of what they consume. In

particular, Simon has taken it upon himself to grow some of his own food to better care for his family. Simon said, *“A lot of my neighbors are farmers and I don’t know if the pests in my garden are a result of them spraying pesticides on their crops to eliminate the pests on their own farms. I also notice, especially around the fence line, that plants die when I try to plant in that area. When my neighbors use pesticides it makes it harder for me to maintain my garden.”* Michelle shares similar concerns, *“We’ve had a hard time growing vegetables in our yard. Fifteen years ago, we grew tomatoes, eggplant and papaya. Now, it’s hard to keep even the grass growing nice in my yard. I think it’s due to what the next-door nursery sprays.”*

The Nonpoint Source Pollution Task Force Coordinator also identified people vulnerable to waste from pig farms. Lehua, who grew up on a family-owned pig farm in Wai`anae remembers some of the struggles they faced before they eventually went out of business. *“My dad would spray down the pig pens and all the waste goes to a reservoir at the end of our property. When we’d have a big rain, all the neighbors would complain about us because that area would flood and all the pig waste would end up in the neighbors’ yards.”*

### ***Overcoming Barriers to Partnerships***

Engaging community members to participate in task force events and developing partnerships proved to be very difficult. These difficulties are described below, along with how the task force coordinators overcame those difficulties (I.h.). There are three primary reasons why developing partnerships proved to be difficult in the Wai`anae Coast community—distrust, economics and time. The issue of distrust is best explained by one of the Residential Illegal Dumping Task Force Coordinators when she said, *“There are many different organizations that come into our community and use our resources, but provide nothing in return. Because of this, the community becomes very skeptical of outsiders and takes the attitude of ‘what’s in it for me.’ You can’t blame them because they have been burned so many times.”* So while some of the kupuna (elders) showed trust in PAF (an outsider) to apply for the CARE grants for the benefit of their community, that trust was not necessarily shared by community members and organizations – as documented below. For the Task Force Coordinators, the challenge became *“reassuring them this (Ka Wai Ola O Wai`anae project) was a good thing for our community and kids.”*

At times, the Task Force Coordinators who live and work in the Wai`anae Coast community were met with distrust because they were perceived as outsiders to a particular group of people within their own community! For example, the Nonpoint Source Pollution Task Force Coordinator’s greatest challenge was gaining trust within Wai`anae’s conventional farming community, because the farmers perceived him to be an outsider. The Coordinator overcame this challenge by engaging with the friends or family of farmers to begin building trust. Interestingly, it was the organic farmers who proved to be quite trusting, being very open to sharing information and talking about their practices. Also, by attending workshops with partner organization Kahumana Farm, small personal farmers increased in their communication with the Coordinator; albeit, these farmers use techniques that do not cause of nonpoint source pollution.

The Commercial Illegal Dumping Task Force Coordinator attempted to start a roundtable of commercial truckers to discuss the problem of illegal dumping and to increase awareness and knowledge of proper ways to dispose of their waste. The goal was for truckers/trucking companies to change their practices from illegal dumping to proper disposal of waste. Despite

significant efforts to build relationships and trust to get truckers to the roundtable, no one would come, due to distrust. The source of distrust is discussed in the next section related to economics.

The second reason developing partnerships proved difficult was due to economics. As previously stated, at least 19 percent of the Wai`anae Coast population lives below the poverty line. In addition, the State of Hawai`i has one of the highest cost of living rates in the nation; but provides mostly service industry jobs that pay low wages. Thus many adults work at least two jobs just to meet their financial obligations. The result is that many community members put up barriers to protect themselves from any real or perceived threats to their livelihood. This is especially true for farmers and commercial truckers. Small-scale farmers who live from crop to crop are unwilling to change from conventional to natural farming techniques because they are fearful that the natural farming will not produce the income they need to support their livelihood.

Commercial truckers often choose to bypass landfills to avoid paying the associated disposal fees and dump their waste in the valleys along Wai`anae Coast. This scenario was played out a few years earlier. Several people on O`ahu had started trucking companies in anticipation of work related to the mass transit project. When the mass transit project was put on hold and the economy collapsed in 2008-2009, many trucking companies were left with large debt and no work. So, some truckers turned to illegal dumping in the Wai`anae Coast valleys to maximize their profits by avoiding paying disposal fees. Fortunately, the larger, well established trucking companies saw what was happening and began policing their own industry. As such, by the time the CARE Level 2 work began, much of the commercial illegal dumping had been mitigated. In addition, truckers feel they are being “nickel and dimed” to meet regulations and taxes. They see the government as a “give me, give me” organization. The Commercial Illegal Dumping Task Force Coordinator said, *“These people are aware that they are breaking the law, but they believe they have to to make ends meet financially.”* To overcome this mentality and improve partner relations (I.i.), the Coordinator *“diligently chopped away at people’s natural barriers of distrust and worked to build relationships.”*

The third reason developing partnerships proved difficult was due to people’s lack of time to participate. As previously stated, many Wai`anae Coast community members are working at least two jobs to meet financial obligations. On top of other responsibilities, they do not have time to commit to a task force or participate in task force activities. Community leaders, many of whom served on our Level 1 Advisory Committee, serve on many local committees and boards. They found it difficult to add one more thing to their list of things to do.

The Residential Illegal Dumping Task Force Coordinators overcame the time challenge by engaging youth to participate, since they have more free time to participate in extra-curricular activities. Outreach to the Boys & Girls Club, various canoe clubs, foster care facility and high school brought out numerous youth who participated in beach cleanups. The Task Force Coordinators spoke to the youth about the history and culture of that particular beach and emphasized their kuleana (responsibility) to mālama `āina (care for the land).

### ***Engaging the Community through Social Media***

In addition to one-on-one outreach to build partnerships, the Communication Coordinator developed a project Facebook site to inform the community at large of Ka Wai Ola O Wai`anae

activities. As of September 30, 2013 (end of the Level 2 grant), 538 people “Liked” the project Facebook site, exceeding the goal of 500 Likes! Strategies implemented for engaging the community through Facebook included:

- Use of task force activities to create content. Pictures, dynamic slideshows and videos from beach cleanups and workshops were uploaded to the site for people to view and “Like.”
  - <http://www.youtube.com/watch?v=39mVjciQqtY>
  - <http://www.youtube.com/watch?v=caajs48SlmI>
- Ask people who attended task force events to Like the project Facebook page.
- Promote the Facebook page public service announcements, news articles, community presentations, etc.
- Paid advertisements sent to all Facebook users in the Wai`anae Coast zip code.

After task force activities, participants were asked to go on the project Facebook page and leave comments related to how their attitude or behavior had changed, resulting from their participation in the event. No one followed through on leaving comments. People prefer to go Facebook to get a quick piece of information or to Like photos from the event they attended.

The Communication Coordinator conducted other forms of mass outreach, awareness and education that included:

- Presentations at neighborhood board meetings and at community town hall meetings
- Public service announcement on how to dispose of trash at City & County of Honolulu’s Wai`anae Convenience Center shown on Olelo public television.
- Stories of beach cleanups published in West Side Stories community newspaper.
- Interviews of Project Team on state representative’s television show, “Jo Jordan’s Journal.”
  - [http://www.youtube.com/watch?v=YG-TM0n\\_96U](http://www.youtube.com/watch?v=YG-TM0n_96U) (47 views)
  - <http://www.youtube.com/watch?v=TR3s3cgpN7o> (44 views)
- Filmed on a national television program that targets the surfing community

### **Empowering through Community Education**

Community members and task force participants were empowered by being educated on understanding how their actions on the `āina (land) impact the quality of the wai (water), where they recreate in and gather subsistence from. One educational tool that used was the project video documentary ( <http://www.youtube.com/watch?v=eVJ66hHJGNY> ), which has 123 views). With insights from youth and kupuna (elders) alike, the documentary highlights community history, the once pristine conditions of the `āina (land), the disconnectedness of the people from the `āina and the resultant problems associated with illegal dumping. The video then transitions to what Ka Wai Ola O Wai`anae was doing to address the problem.

Specifically, how each task force used education as a toxic reduction strategy is described below (II.c).

#### ***Residential Illegal Dumping Task Force***

The Residential Illegal Dumping Task Force focused on reducing illegal disposal of trash on beaches. The trash primarily consisted of cigarette butts, plastic bottle caps and food wrappers



(II.a.). These items are hazardous to human, animal and environmental health. Cigarette butts may leak trace amounts of chemicals (cadmium, arsenic and lead) into the environment. Plastic bottle caps eaten by land and marine life may block the animal’s intestinal track, causing them to die of starvation or malnutrition. Through subsistence fishing, humans are impacted when they eat fish that have bio-accumulated chemicals from their uptake of chemicals/trash in the environment.



So many cigarette butts!

At each of the beach cleanups, the Task Force Coordinators used a “knowledge test” to increase participants’ knowledge of the impacts of trash on the environment, both on the `āina (land) and in the kai (ocean). At the beginning of each beach cleanup, up to ten participants were asked to complete the ten-question, multiple-choice test (provided under Attachments). Also, in accordance with the mission statement ‘...to take ownership of our resources and be responsible for our actions that impact our health and environment,’ the Coordinators taught beach cleanup participants about the history and culture of that particular beach to inspire participants of their kuleana (responsibility) to mālama `āina (care for the land).



Youth taking the Knowledge Test

The Task Force Coordinators also distributed the project brochure *Keep Waianae Clean—Proper Trash Disposal* (provided under Attachments), which detailed Wai`anae-specific information on the disposal of trash at the City & County of Honolulu convenience center and bulky item pickup services. It also provided phone numbers for reporting illegal dumping of trash. These services collect items such as furniture, mattresses, car batteries, tires, appliances and household construction debris – items often dumped along roads and beaches. In addition, the Communication Coordinator produced a public service announcement (PSA) on the use of the Wai`anae Convenience Center, which was shown on `Ōlelo public television. The point of the brochure and PSA is that with government services available for trash disposal, there is no excuse for illegally dumping one’s trash!



In addition, the Task Force Coordinators partnered with 5<sup>th</sup> grade students at one elementary school for the Cigarette Butt Campaign, to educate the community on the most littered item in the world – cigarette butts. Students decorated cafeteria food cans, filled them with sand and then took them home for family members to properly dispose of their cigarette butts. Students learned that cigarette butts are not biodegradable and release harmful chemicals into the environment.

### ***Commercial Illegal Dumping Task Force***

The Commercial Illegal Dumping Task Force focused on reducing trash disposed of by commercial truckers in the valleys along the Wai`anae Coast (II.a.). Specifically, the task force focused on illegal dumping of untested soil, construction debris and tires. As previously mentioned, the trucking community distrusts anyone outside their business. So the education of truckers by the task force primarily took place through relationship and trust building via “talk story” (I.i.). This led to the access of influential people within the Wai`anae trucking and business community. Below are three examples of how this was accomplished.

- As the task force talked story with ranchers and farmers, they discussed what was pono (doing what is right). The Task Force Coordinator said the following about the ranchers and farmers, *“They have been more focused on keeping their properties cleaner and have really communicated with us about what is wrong in our community. They have engaged with their neighbors on keeping the stream near their homes debris free and continually keeping their properties clean.”*
- By building a relationship with a business owner, the task force was able to open a dialogue on environmental cleanliness, a formerly “hush, hush” issue. The business owner is now more open to being environmentally clean and is encouraging others to do the same.
- One of the task force members is a trucker, who gave invaluable insights into the trucking industry. Unfortunately, this trucker recently dumped a pile of dirt on his property, instead of properly disposing it to make extra money. The trucker thought that because the soil had been tested as clean, it was okay to not dispose of it in an approved landfill or recycling facility. While the Task Force worked together to shovel the dirt into a truck and properly dispose of it, the Coordinator explained how improperly disposed soil can lead to nonpoint source pollution and *“stressed that he (the trucker) has to make a better impression and he agreed to do so.”*

### ***Nonpoint Source Pollution Task Force***

The Nonpoint Source Pollution Task Force focused on reducing the use of pesticides and pig waste resulting from conventional agricultural practices (II.a.). The concern was that the pesticides and pig waste would enter streams via wind or storm runoff, then flow into the ocean where people recreate and subsistence fish.

To educate farmers on the use of natural farming techniques, the Task Force Coordinator worked with Oahu Resource, Conservation & Development Council to host two workshops. The first workshop focused on Integrated Pest Management (IPM) that targeted vegetable and fruit farmers, with the aim of reducing pesticide use in their farming practices. IPM is a concept that utilizes knowledge of the agro-ecosystem, the crop and its associated pests to select appropriate pest control measures. The overall intent is to feasibly control pests while decreasing the negative impact on the environment and human health.



*IPM expert teaching about good pests at Kahumana Farm.*



The topic of the second workshop was Inoculated Dry Litter Systems (IDLS), which utilizes indigenous microorganisms (IMO) to hasten the decomposition of pig waste, thereby eliminating the need for pig-waste reservoirs. This workshop also educated pig farmers on new federal regulations to be implemented in 2013.

The Communication Coordinator produced a short video of the two workshops for the Task Force Coordinator to use in his outreach efforts to farmers who could not attend the workshops. Response by the farmers to the video was twofold. One, the small farmers who were already implementing some natural farming techniques did not feel that they would benefit much from further information. Two, the larger scale conventional farmers were not willing to make any changes to their farming techniques for fear of losing income.

Four months prior to the completion of the grant, the Project Team attended the Fostering Sustainable Behavior workshop hosted by Dr. Doug McKenzie-Mohr. Dr. McKenzie-Mohr's premise, based on numerous studies, is that education alone has little to no effect on sustainable behavior change. As such, he promotes community-based social marketing as an alternative to information-intensive campaigns. His pragmatic approach involves: 1) carefully selecting the behavior to be promoted; 2) identifying the barriers and benefits associated with the selected behavior; 3) designing a strategy that utilizes behavior-change tools to address these barriers and benefits; and 4) evaluating the impact of the program once it has been broadly implemented. The Project Team felt they could have benefitted from the workshop at least a year earlier, thereby having time to implement these practices.

### **Empowering through Executing Community-Based Activities**

Toxic reductions strategies were not only implemented through education, but were enhanced by executing community-based activities, whereby participants learn by doing (II.c.). Detailed below are the community-based activities executed by each of the task forces, along with challenges they faced, how they overcame those challenges and how they maintained momentum.

#### ***Residential Illegal Dumping Task Force***

At the startup of the project, the Residential Illegal Dumping Task Forces conducted a visual stream and trash assessment of Nānākuli Stream, documenting stream conditions and the type and amount of trash present in the streams. During the assessment, a participant was heard saying, *"I used to play in this stream when I was a child. It was clean. Today, it is dirty. I had no idea how much trash has been dumped into this stream. It saddens me."* It goes to show that simply educating the community about the impacts of trash on the environment is not sufficient; they need to be exposed to those impacts via hands-on activities. The original plan was to do visual stream assessments at several streams, all but one of which are on City & County of Honolulu property. Due to lack of staff and resources, City & County personnel were unable to support this activity. Although Nānākuli Stream is not located on City & County of Honolulu property, the Coordinators felt stream conditions were unsafe to conduct future assessments. Thus visual stream assessments were removed from the task force plan (II.m.).

The primary activities or outputs for the Residential Illegal Dumping Task Forces were to conduct monthly beach cleanups, rotating among Nānākuli, Ma`ili, Poka`i Bay and Mākaha

beaches (II.i.). These task forces sought to reduce the amount of trash thrown on beaches by community members by modeling positive behavior (beach cleanups), prompting the community to legally dispose of trash. By having monthly beach cleanups and continuously inviting community groups who live near that particular beach helped to build momentum over the course of the project (II.h.). At each of the cleanups the Task Force Coordinators, along with the youth mentees (presented under subsequent section REFLECTION) carried out the following activities:

- Signed in all participants.
- Introduced Ka Wai Ola O Wai`anae staff and explained the purpose of the project.
- Shared cultural history of the area to promote kuleana (responsibility) to mālama `āina (care for the land).
- Educated participants on the impacts of trash on the environment through the use of a Knowledge Test.
- Distributed the brochure *Keep Wai`anae Clean* to adult beach cleanup participants and people camping on the beaches to promote proper dumping of trash and reporting of illegal dumping.
- Divided into teams to pick up trash.
- Counted the number of bags of trash collected.
- Invited participants to the next cleanup.
- Promoted use of Facebook to stay informed of project activities.



*Over Sixty five people participated in the Nānākuli Beach cleanup on July 20, 2013!*

The culminating project was conducted in partnership with Sustainable Coastlines Hawai`i in support of the International Coastline Cleanup Day event in September 2013. Two hundred and seventy people from the Waianae Coast community picked up 1,300 pounds of trash from Nānākuli, Ma`ili, Poka`i Bay and Mākaha Beaches! The executive director of Sustainable Coastlines Hawai`i had this to say after the cleanup, *“The biggest success was not in the trash removed but the new partnerships and friendships that were formed as a result of doing good for the community. These partnerships inspired coastal stewardship and educated our participants about the culprits of the trash on our beaches. With this knowledge and strengthened stewardship mentality we can lead by example in keeping our beaches clean. Not only through cleaning, but by reducing our own uses of plastic.”*

In addition, the Task Force Coordinators originally partnered with the Paakea Road community to implement a beautification project to stop illegal dumping along the road. Paakea Road is a 2-

mile long rural road that borders U.S. Navy property with no lighting at night. Illegal dumping of tires, construction debris, household goods and trash along the road are quite common. The Task Force Coordinators met twice with Paakea Road community members to outline a beautification plan using EPA's *Illegal Dumping Prevention Guidebook* for ideas. The goal was to empower the Paakea Road community to take the lead in this beautification effort, with support from the Ka Wai Ola O Wai`anae Project Team and eventually use this as a model for other communities who struggle with illegal dumping. Unfortunately, the Paakea Road community members had other priorities that kept them from fulfilling this plan; Thus no beautification project was implemented (II.m.).

### ***Commercial Illegal Dumping Task Force***

As previously presented under the section *Empowering through Community Engagement*, the Commercial Illegal Dumping Task Force Coordinator found it difficult to engage and educate the trucking community. The primary challenges were building trust with a distrusting group of people, countering the monetary benefit of avoiding the payment of disposal fees and the lack of education on the long-term impact of pollutants on the environment. The original plan was for the Task Force Coordinator to form a partnership with the City & County of Honolulu Illegal Dumping Coordinator and schedule a Roundtable discussion with truckers. Unfortunately, no one showed up to the Roundtable meeting because of trust issues (II.m.). Three companies originally agreed to participate on the Roundtable, then backed out because they were uncomfortable (did not trust) with some of the people and organizations who would be at the table. Thus an attempt to build trust with and educate truckers on illegal dumping issues through the Roundtable was discontinued. Over time, however, the Task Force Coordinator was able to engage five people, one of whom is a trucker, to serve on the task force.

The Commercial Illegal Dumping Task Force also tried to promote reporting of illegal dumping using the City & County of Honolulu 311 App. The change in city administration, however, brought concern that the app would be discontinued. So the task force used the City & County's illegal dumping hotline to report illegal dumping.

A community member assisted the Commercial Illegal Dumping Task Force by partnering with the local police department and the city prosecutor's office to enhance enforcement and prosecution of illegal dumping along the Wai`anae Coast. To assist this effort, a community-based investigative team would have been trained in becoming factual witnesses at illegal dump sites. Unfortunately, higher priorities and lack of resources prevented the support of the police and city prosecutor's office from working with the community to train factual witnesses (II.m.). The community member plans to continue to pursue the development of this community-based investigation team.

The Commercial Illegal Dumping Task Force Coordinator served on the Tire Task Force, established by legislation in 2012 and directed by Hawai'i Department of Health, Solid Waste office. The purpose of the Tire Task Force was to study ways to prevent or control the problem of abandoned tires that litter Oahu. The Tire Task Force began meeting in



January 2013. As of September 2013, the Tire Task Force was considering legislation related to creating a surcharge on imported and replacement tires, stricter regulation of tire haulers and burning of tires in the H-POWER garbage incinerator. Non-legislative action items include establishing a contract to remove tires from illegal dumping hot spots. In addition, the City & County of Honolulu and the H-POWER operator are assessing H-POWER's ability to effectively convert used tires into energy. The use of tires as fuel, or Tire Derived Fuel, is the predominant method for recycling waste tires in the United States.

During the process of trying to establish the Roundtable, the community-based investigative team and participating on the Tire Task Force, the Commercial Illegal Dumping Task Force found that the problem of commercial dumping by truckers had been minimized. Once the large, well-established trucking companies realized the problem of illegal dumping along the Wai`anae Coastline (and other locations) was being done to compensate loss of income from the halted rail project and down economy, they took responsibility to police their own by preventing the illegal dumpers from obtaining hauling and disposal contracts. So the Task Force had to evolve their strategy to activities where they could affect the most change (I.e., m.). They implemented two new strategies, as described below.

- The Task Force implemented a drive-around program where task force members drove around areas known for illegal dumping and reported illegal activity to the City & County of Honolulu.
- In partnership with private property owners, the Task Force installed a surveillance camera on property overlooking an area commonly known for illegal dumping.

The Commercial Illegal Dumping Task Force has consistently worked to build momentum (I.h.) by always engaging potential partners and evolving their strategies to fit conditions on the ground.

#### ***Nonpoint Source Pollution Task Force***

The original plan developed by the Nonpoint Source Pollution Task Force Coordinator was to form a team of people in Wai`anae to evaluate how to reduce pesticide use by farmers (I.m.). Although a team was never formed (for previously discussed reasons related to distrust, economics and time) numerous discussions with community members showed an overwhelming concern of commercial farmers overspraying their produce and flowers. Anecdotally, this overuse of pesticides was having an impact on smaller farms, organic farms and home gardens. Some people reported that the soil on their land that used to be fertile could barely grow anything anymore. Another person reported an increase of pests (insects and rodents) on his property over the years due to what he believed was from the increased use of pesticide spraying. One community member reported that he personally has breathing problems after his neighbors spray pesticides on their farms.

The next objective was to partner with farms who were implementing natural farming techniques. Three nonprofit organic farms were identified, as they blend traditional ecological knowledge into their farming techniques as they train and educate students in Native Hawaiian culture. These farms, however, were unable to take on an additional partnership with Ka Wai Ola O Wai`anae due to their existing commitments. The Coordinator also reached out to commercial farmers thinking the positive publicity related to the use of natural farming techniques would be



important to them. However, the commercial farmers showed no interest in a partnership with this task force.

The Nonpoint Source Pollution Task Force finally began to gain momentum (II.h.), when one of the advisory committee members, who has an agricultural background, suggested hosting workshops on Integrated Pest Management (IPM) and Inoculated Dry Litter Systems (IDLS), as previously described. The nonprofit Oahu Resource, Conservation & Development Council (Oahu RC&D) was contracted to plan and coordinate the two workshops to be held with the nonprofit partner, Kahumana Farm. Each farmer who attended the workshops was afforded the opportunity to receive technical assistance by Oahu RC&D should they choose to implement any of the natural farming techniques taught in the workshops. Unfortunately, no farmers followed through on this opportunity (II.m.). However, one Wai`anae pig farmer did attend the IDLS workshop. The farmer was very interested in and applied for financial assistance. For reasons unknown to the Task Force Coordinator, communication with the farmer ended and no status update is available.

After the second workshop, the topic of indigenous microorganism (IMO) kept coming up. The Task Force Coordinator met several people in the community who were interested in experimenting with the use of IMOs. Indigenous microorganisms are present in soil and water on any given property. The process, originating from Korea, stimulates the growth of these microorganisms with the addition of inputs (sugar and starch). The increased production of microorganisms helps to make the soil and water more fertile. Cultivating the inputs in some cases is not easy, as it can take anywhere from 7 days to 6 months to stimulate the microorganisms to the point necessary for the particular crop conditions. Community member Keoni is trying to start a small business that would create the necessary inputs for farmers who do not have the time or knowledge to do it themselves. Keoni is currently looking for financial support and a location to start this business. This is an excellent out-of-the box idea that would not have come up without the workshops.



*Making  
IMO  
inputs at  
the IDLS  
workshop  
at  
Kahumana  
Farm.*



In addition to addressing nonpoint source pollution related to farming, this Task Force also worked to address nonpoint source pollution resulting from the lack of restoration and maintenance of the Wai`anae inactive landfill cover. Currently, the public uses the site for off-road vehicle riding (i.e. dirt biking), which has destroyed the vegetative cover. The exposed soil is then blown by wind or washed off by rain into the nearby stream. The city council representative for the Wai`anae Coast community has been assisting with getting the inactive landfill addressed by coordinating with the city Department of Environmental Services to restore

the green cover. The holdup is due to budget issues. Meanwhile, the issue was brought to the attention of the Honolulu Police Department to monitor for and remove any trespassers.

### **Empowering by Evaluating for Success**

The Ka Wai Ola O Wai`anae Project Team used logic models (III.f.) to evaluate whether the engagement, education and community-based activities implemented by each of the three task forces mitigated pollutants in the environment and changed the community's behavior. The logic model identifies inputs (what is invested), outputs (what is done) and outcomes (what are the results) for each task force activity. Outcomes are divided into three categories: 1) short-term outcomes that promote changes in attitude, awareness or knowledge; 2) medium-term outcomes that change behaviors, practices or policies; and 3) long-term outcomes that change environmental or social conditions. The use of logic models empowered Task Force Coordinators to measure for results, thereby knowing they have achieved some level of success in their work to mālama `āina (care for the land). The logic models changed over time as the Coordinators made adjustments to their plans based on what worked on the ground (as documented in the section on *Empowering by Executing Community-based Activities*).

The Task Force Coordinators were the first to share of the difficulties they had in understanding the logic model (III.f.), specifically struggling with defining the outcomes. The challenge was determining how the activities (outputs) would actually produce behavior change and reduce pollutants in the environment. The Project Team was empowered by the assistance of EPA staff in defining these outcomes (III.i.), both at CARE conferences and via telephone and email.

Note – Once each task force had finalized their respective logic models, they found that the inputs and outputs were easy items/activities to control. The task force would gather its inputs (partners, funding, etc.) and execute the activity. As far as the outcomes were concerned, the task forces hoped to influence the community to make attitudinal or behavioral changes. Ultimately, however, it was up to the community members to decide whether they wanted to make those changes. Thus many of the task force outcomes were not realized as expected.

The following section provides a narrative of the significant outputs and outcomes for each of the three task forces (II.i. & j.), specific reductions in environmental risks (II.k.) and how functioning as a partnership achieved these reductions (II.l.). Logic models for each of the task forces are provided under Attachments for reference.

### ***Residential Illegal Dumping Task Force***

The significant outputs (II.i.) for the Residential Illegal Dumping Task Force were the 14 beach cleanups across four beaches (Nānākuli, Ma`ili, Poka`i Bay and Mākaha). Two hundred and twenty three people from the community and seven partner organizations (II.l.) reduced environmental risks (II.k., j.) from trash by removing 65 bags of trash from four beaches. The long-term outcome was to reduce trash by at least 50% at each of the four beaches between the first and last beach cleanups. At Ma`ili Beach trash was reduced by 50%, Poka`i Bay Beach by 78% and Mākaha Beach by 67%. Nānākuli Beach reduction in trash was not calculated because the cleanup area kept increasing to accommodate the increased number of participants, which is a good thing! These results show a definite achievement for both the environment and community.

The other significant output (*II.i.*) was the participation of 99 fifth-grade students and four teachers in the Cigarette Butt Campaign. Of the 99 students who attended the educational session, 71 students took home cans that were then used by family and friends, who disposed of 2,140 cigarette butts. Considering that cigarette butts are the most littered item on the Wai`anae Coast beaches, this is a great start to reducing the environmental risk from cigarettes (*II.k.*).

In terms of whether this task force addressed both toxic reduction and partnership sustainability (*II.b.*), one of the Residential Task Force Coordinators had this to say, “*We have educated our community and promoted awareness of proper trash disposal through the use of our knowledge test and demonstrating KULEANA (responsibility) through beach & stream cleanups. But I feel like as an organization in our community we have not permanently solved this issue that we face. There needs to be an ongoing project promoting awareness, educating and doing the actions that solve illegal dumping in our community. We live in an economically disadvantaged community with cultural challenges, resulting in distrust of any outsiders. I feel like there needs to be protocol established to better engage our community and their leaders to be more effective in the programs & projects. So yes, I feel like if Ka Wai Ola O Wai`anae doesn’t exist, our community will regress and go back to their old ways. We need to have a constant presence talking, doing and living our project.*”

#### ***Commercial Illegal Dumping Task Force***

Two outputs produced significant outcomes (*II.i. & j.*) for the Commercial Illegal Dumping Task Force. Task force members participating in the drive-around program reported four incidents of illegal dumping to the City & County of Honolulu illegal dumping hotline. The short-term goal was to report 25 instances of illegal dumping. In addition, as a result of the drive-around program, three community members were educated on how to reduce pollutants in the environment by properly disposing of their waste. The short-term goal was to engage and educate 10 people. It is unknown whether the reporting of the illegal dumping incidents resulted in the reduction of environmental risks (*II.k.*). Partnering with the men serving on the task force (*III.L.*) was key in evolving the outputs to match conditions on the ground, producing results through the drive-around program.

In terms of whether this task force addressed both toxic reduction and partnership sustainability (*II.b.*), the Commercial Task Force Coordinator believes, “*we will still have a ripple effect after the project is completed. We still live in the community and by taking the stance of caring I believe we have planted seeds that will make a difference in our community.*”

#### ***Nonpoint Source Pollution Task Force***

The Nonpoint Source Pollution Task Force accomplished two of its three short-term outputs and outcomes (*II.i. & j.*). For the IPM workshop, the Coordinator outreached to 37 produce farmers to attend the workshop; the goal was to outreach to 35. Out of the 37, six attended the workshop, gaining knowledge of IPM practices. No farmers implemented any of the IPM practices, developed a conservation plan, or applied for financial assistance. For the IDLS workshop, the Coordinator outreached to 40 pig and natural farmers to attend the workshop; the goal was to outreach to 40. Out of the 40, 16 pig and natural farmers attended the workshop. Of the attendees, one pig farmer applied for conservation planning assistance. Due to the lack of



farmers taking the opportunity to implement IPM or IDLS practices, there were no reductions in environmental risks resulting from pesticides or pig waste (II.k.).

Commenting on not meeting the task force outcomes, the Coordinator said, “As much as I tried to get farmers to attend our workshops and to follow up with them after, a lot of them just were not into making that change. I believe that economic instability had a lot to do with this, as the current market is extremely unstable for commercial farmers, who are already living from crop to crop.” The Coordinator then added, “If I could do it again and start over with the knowledge that I now have, I would have focused more on the people who live in the areas around conventional farms. A lot of them have home gardens for their fruits and vegetables and many of them are trying to be organic. They chose to put their homes in these areas so that they could have yards and gardens. I would focus more on educating them about nonpoint source pollution resulting from farming practices. In turn, they might then put pressure on their neighbor farmers to try to keep them cleaner.”

Partnering with Oahu RC&D and Kahumana Farm aided in achieving the workshop outputs and outcomes (II.l.). The Task Force Coordinator stated, “The partnership with Kahumana Farm in particular helped me a lot with networking and just getting out and talking to people. At the beginning I went door to door to talk to people, but that really didn’t work. I needed to be connected with people who cared about the message and wanted to make a change. I found it much more helpful to spend an hour with one person who really cared about pollution and a healthy environment, than spending an hour knocking on ten different doors and getting nothing out of it.” In terms of the partnership with Oahu RC&D, the Coordinator stated, “I don’t think I would have been able to produce workshops of that quality without Oahu RC&D. They are such unbelievable professionals at this and they truly are a treasure to farmers who want to make a good change.”

The Nonpoint Source Pollution Task Force Coordinator was also responsible for working with the City & County of Honolulu to address the lack of cover over the Wai`anae inactive landfill. Residents have accessed this restricted site over the years to ride dirt bikes, thereby destroying the protective cover. During strong winds or heavy rains, the soil is transported to the nearby stream as potential nonpoint source pollution. The City Council representative has forwarded this issue to the Department of Environmental Services for assessment. Proposed action and funding is pending. The Task Force Coordinator plans to continue oversight of this issue after the grant expires.

In terms of whether this task force addressed both toxic reduction and partnership sustainability (II.b.), the Nonpoint Source Pollution Task Force Coordinator has this to say, “I have built relationships that I intend on maintaining well beyond the grant. I want to help continue to make positive changes in the Wai`anae community. I believe the people I have met through this process are going to be very helpful in promoting a cleaner Wai`anae and a healthier way of life. I continue to support Kahumana Farm by purchasing produce from them and going to their café and I continue to share with my friends how great of an organization that Kahumana Farm is.”

## REFLECTION

Detailed below are the questions and responses to questions, as outlined in the CARE Grantee Final Report, Section III.

**a. How likely is it that the progress achieved could have been made without your CARE partnership?**

- Overall, the Ka Wai Ola O Wai`anae Project Team believes that it is not likely that the progress achieved could have been made without our CARE partnership.
- From the Nonpoint Source Pollution Task Force Coordinator – *“I think my project’s greatest achievement were the partnerships I made and my own personal growth as a community leader and an activist. I have always advocated for education in my community before, but often felt my voice was not heard. But in this project, I was able to educate myself on many of environmental issues affecting my community, along with the many environmental injustices impacting Native Hawaiians. I met a lot of great people in my community who I would not have sought out if not for this project and I met some great local businesses and individuals who are supportive of a cleaner and healthier Wai`anae. I find myself immersed in this and people have been seeking me out for my advice and information on topics concerning our environment and community. I have been able to serve as a middleman, connecting people with similar interests in gardening and farming to share their techniques and to try to educate others in growing healthier produce. I believe there is a serious movement growing in Wai`anae about eating healthier and using our natural resources to the best of our ability.”*
- From the Communication Coordinator – *“I have a unique skill set and professional background that I bring to our CARE partnership. As a professional photographer, videographer and video editor I brought along my talent and my business equipment to do my job. The value in that, coupled with social media, content management and community engagement, helped to brand Ka Wai Ola O Wai`anae in the community and across the island.”*

**b. What do you consider your project’s greatest achievement?**

- From the Residential Illegal Dumping Task Force Coordinator (Nānākuli) – *“I consider our project’s greatest achievement was working with our youth mentees and seeing them grow and succeed as they planned and led at each of the beach cleanups.”*
- From the Commercial Illegal Dumping Task Force Coordinator – *“Our project’s greatest achievement was breaking through the barriers of community distrust to effect change in people and business owners to mālama `āina.”*
- From the Communication Coordinator – *“One of my greatest achievements was producing the Ka Wai Ola O Wai`anae documentary during the Level 1 grant and using it as a tool to share with EPA to garner support for Level 2 grant. It showed the difficult situation our community is having regarding illegal dumping. It helped to educate the CARE program staff about our issues even though many people on the Mainland think we live in paradise. We do live in paradise, but we our community suffers from many environmental justice issues, which we need help addressing.”*

- c. **What was your greatest challenge and how did you deal with it?**
- Overall, the Project Team felt their greatest challenge was developing partnerships due to barriers related to distrust, economics and time. These details are provided under the section *Empowering through Community Engagement*.
  - From the Nonpoint Source Pollution Task Force Coordinator – *“My greatest challenge was my community. I live in a beautiful community full of amazing people, but because of past hurts they are full of distrust that affects all of us. In the beginning it was hard doing outreach because I did not want to focus on who was already part of the solution, but I wanted to engage those who were complacent or part of the problem. I had this magical idea that people would want to talk about environmental concerns, but I was sadly wrong. Most people I outreached to were distrusting or complacent and therefore, unwilling to partner. In the process of doing, however, I met people that I would not have necessarily even known existed, like Kahumana Farm. I was also rejected a lot. It hurt to see that people in the community were not even willing to talk about the issues, but I have seen in recent weeks, more people are coming to the table to talk about the injustice issues we face. It just takes time and persistence. I tried to build relationships and just be available to different people in hopes that it would open up a line of trusting communication.”*
- d. **What would you do differently next time in terms of organizing and structuring your partnership to achieve your project objectives?**
- From the Residential Illegal Dumping Task Force Coordinator (Nānākuli) – *“I felt like we should have integrated more with our schools by getting them involved in activities. The Cigarette Butt Campaign in Leihoku Elementary School was a great success; we should have done more projects like this.”*
  - From the Nonpoint Source Pollution Task Force Coordinator – *“Knowing what I know now, I think I would focus not just on outreach to farmers, but add outreach to community organizations like civic clubs and churches. I think trying to reach people through those organizations might help more than just trying to reach them on my own, one by one. Being a friend of a friend is better than being a stranger.”*
  - From the Communication Coordinator – *“I guess I would be more persistent in asking people to partner with us more than once or twice. It goes against my personality to ask more than once or twice, but I now realize that it takes persistence. When you live in a small community such as mine, you do not want to be seen as someone always asking for something.”*
- e. **How might you have been more strategic in designing or implementing your project?**
- Doing a community assessment of attitudes and beliefs in the commercial trucking and farming communities. If we had a better understanding of these communities’ attitudes and beliefs BEFORE we developed our work plan and logic models, we would not have lost so much time trying in trying to get them engaged.
  - Instead of trying to mitigate pollutants related to three diverse environmental issues (residential illegal dumping, commercial illegal dumping and nonpoint source pollution), the Project Team believes the project should have been designed to deal with one issue – residential illegal dumping. The dumping of trash by Wai`anae Coast residences – on

beaches, roads, private property and valleys – is overall the greatest environmental issue not being addressed in this community.

- The four Task Force Coordinators and the one Communication Coordinator were hired to work 10 hours/week for the duration of the grant. This required these coordinators to take on additional work to meet their financial obligations. Having to work two to three jobs took attention away from focusing on the Ka Wai Ola O Wai`anae project.
- Thus the project would have been better implemented focusing on mitigating residential illegal dumping and its associated pollutants from mauka (from the mountains) to makai (to the ocean), using two staff paid at least to work 20 hours/week. The Communication Coordinator would retain her role in promoting the project and its activities.

**f. Use of logic model discussed under *Empowering by Evaluating for Success*.**

**g. To what extent did your CARE community communicate or engage with other CARE communities and how was that interaction helpful?**

Because of Project Team’s involvement with both CARE Level 1 and 2 grants, the team benefitted from five CARE conferences (II.f.). The CARE conferences served as an excellent opportunity to engage with other CARE communities. However, since no other CARE grantees were addressing pollutants related to illegal dumping or nonpoint source pollution, the Project Team did not engage with other grantees outside the CARE conferences on pollutant issues. In addition, the Project Team participated in webinars and conference calls on sustainability and brownfields.

- From the Residential Illegal Dumping Task Force Coordinator (Nānākuli) – *“The CARE conferences gave me insights into other communities and their struggles, as well as learning from them. I remember our conference in San Diego and meeting the people from Alaska and learning about the culture and plight. I realized that we shared the same concerns regarding the effects of colonization.”*
- From the Nonpoint Source Pollution Task Force Coordinator – *“The CARE conferences were great opportunities to meet other people who are in similar situations. I found it so interesting to learn about other communities and to see that things we take for granted aren’t so easy elsewhere. I was amazed to see that other places don’t have waste disposal convenience centers and people have to pay for their trash collection. It was a humbling and eye opening experience. Certain parts of the conference I felt weren’t relevant to me or my community, but as a whole, it was a great experience to see what was done by others and to hear their stories. I hope the Ka Wai Ola O Wai`anae project will be another success story for the CARE program.”*
- From the Communication Coordinator – *“The CARE conferences helped me to understand the kind of issues other communities are facing regarding environmental justice. Interacting with people like Marva King, Vernice Travis Miller and Piyachat Terrel at the conferences helped me to see how communities of color are stressed by industry and government. The conferences helped me to realize there is a process for change that can occur through advocacy and involvement to promote a healthy environment.”*

**h. Did media coverage play a role in your project? If so, please explain.**

Yes media coverage played a small role in bringing awareness to the Wai`anae Coast community about issues related to illegal dumping. Media coverage consisted of the following:

- Hawai`i News Now and KHON2 filmed the Ma`ili Beach Sign Waving Rally and showed on 6 pm news, bringing awareness of issue to the community at large.
- Public service announcement on how to dispose of trash at City & County of Honolulu's Wai`anae Convenience Center shown on Olelo public television.
- Stories of beach cleanups published in West Side Stories community newspaper.
- Interviews of Project Team on state representative's television show, "Jo Jordan's Journal."
  - [http://www.youtube.com/watch?v=YG-TM0n\\_96U](http://www.youtube.com/watch?v=YG-TM0n_96U)
  - <http://www.youtube.com/watch?v=TR3s3cgpN7o>
- Filmed on a national television program that targets the surfing community

**i. In what ways did you rely on EPA for assistance (assessing risks in your community, conflict resolution, partnership support, voluntary programs, such as Tools for Schools or Pollution Prevention)?**

**j. What role did your Project Officer and other EPA staff play in your work? What would you have liked more of or less of?**

The EPA Project Officer, located in the Region 9 San Francisco office, was a key partner on the Ka Wai Ola O Wai`anae Project Team (I.g.). Unfortunately, the distance and associated costs for the project officer to travel to Hawai`i allowed only one visit per year. Phone calls, emails and meetings at the annual CARE conferences enabled effective communication between the project office, PAF project director and the Project Team. As a key partner, the Project Officer participated as follows:

- Presented with the Project Team at three national CARE conferences on the incorporation of the CARE Roadmap and Protocol for Assessing Community Excellence in Environmental Health processes.
- Connected the Project Team with technical experts within EPA to assist with issues such as meeting facilitation, logic models, water resources, illegal dumping and indigenous peoples.
- Supportive in assisting refinement of EPA work plan to address challenges encountered by Project Team.
- Timely and responsive to requests for information or approval.

There were no environmental issues that EPA seemed to lack the tools or means to address (II.g.).



- k. **To what extent do you think that this project increased the capacity of your organization? Your partnership? Your community? Please provide examples.**
- From the Residential Illegal Dumping Task Force Coordinator (Nānākuli) – *“By participating in this project, it has increased trust and respect in our partnerships, as well as our community.”*
  - From the Residential Illegal Dumping Task Force Coordinator (Wai`anae) – *“We increased our capacity as an organization when we focused on the outcomes and held ourselves responsible to fulfill those outcomes, to the best of our ability.”*
  - From the Nonpoint Source Pollution Task Force Coordinator – *“I believe this project has greatly helped me in gaining confidence and skills necessary to take on other similar projects. I have been exposed to the best and the worst in my community and I think I have learned to navigate through the various groups. I think the partnerships and relationships I’ve built and will continue to build will help me engage the community more effectively in the future and I think mobilizing people gets easier the more I do this type of work.”*
  - From the Commercial Illegal Dumping Task Force Coordinator – *“My participation in this project showed me some of the dynamics of my community. For example, how the community responds to public issues, our challenges and possible solutions to dealing these issues. I am still very much engaged with the idea of working with the families and the keiki (youth) of my community. I know the knowledge I gained from Ka Wai Ola O Wai`anae will greatly help me in navigating any organization/project I may undertake in the near future.”*
  - From the Communication Coordinator – *“The project has increased my capacity and awareness of the processes and networking needed to do the community work of uplifting and educating residents on behalf of environmental justice issues. My partnerships have allowed me to see my unique place in helping us to understand and realize our issues and what we can do together to accomplish a healthier life for all residents. We have helped our community be empowered, educated and engaged in environmental justice. Although there is a lot more work to be done, there is still hope!”*
- l. **Did your project produce any new “community leaders?” Please describe.**
- The Project Director used primarily a facilitative style of leadership, followed by a directive style to guide the coordinators in implementing project inputs, outputs and outcomes. To do this, the Project Director used a variety of facilitation techniques that enabled the coordinators to see different perspectives in addressing issues, along with asking questions to help them think their way through different scenarios. It was then up to each coordinator to decide how they wanted to proceed, based on the results of the facilitative process. The Project Director then held the coordinators responsible for implementing what they said they would do, using a directive style of leadership. This facilitative style of leadership honored the intent of the CARE grant – to be a community driven process that builds community capacity that will continue to improve human health and local environment into the future.
  - Youth Mentee Program – Believing in mentoring the next generation to be leaders in our community, the Residential Illegal Dumping Task Force Coordinators developed a Youth Mentee Program. Four high school students participated in the program, developing their skills in planning and executing beach cleanups. To develop their public speaking skills,

the mentees introduced themselves and the Project Team, explained what Ka Wai Ola O Wai`anae was about and why we were cleaning up the beaches. The mentees then passed out supplies, organized cleanup teams and picked up trash. After the cleanup, the mentees collected data related to the number of people who attended, how many trash bags were collected and the number of *Keep Wai`anae Clean* brochures that were passed out. See Developing the Next Generation of Civic Leaders under Attachments.

- One youth mentee did a high school project tracking the flow of debris in ocean currents between islands. She graduated and is now studying marine biology. Another youth mentee invited his high school football team to attend one of the beach cleanups. As a result, that mentee was asked by his football coach to coordinate all future community events for the team. Wow!

The Project Team took a different approach to this question and instead answered the following questions: 1) Did you see yourself as a leader before you began working with Ka Wai Ola O Wai`anae? If not, do you see yourself as a leader now? How have you grown as a leader because of your work with this project?

- From the Residential Illegal Dumping Task Force Coordinator (Nānākuli) – *“At first I didn’t see myself as a community leader, but working with Ka Wai Ola has increased my self-confidence when doing presentation in my community, at schools and outside of my community.”*
- From the Nonpoint Source Pollution Task Force Coordinator/Deputy Project Director – *“I see myself as more of a community leader now than before. I’ve always had a group of people that I tried to help build up when I worked at the high school and in church youth programs. But my work had always been with teenagers, young adults and their families. I think this project has helped me branch out to other demographics in the community and to empower myself to be a stronger voice for the community. Prior to this project, I’ve always advocated to our elected officials, but only through email, letters and phone calls to their offices. I have been able, through CARE, to build personal relationships with all of them and that makes advocating to the government and getting information and resources much easier. I feel as an individual I have come full circle. My grandpa was a rancher, farmer, gardener and many things in between. He was known and respected by some of the farming community in Wai`anae. But I felt this project was something he would want me to do, to help the farming and agricultural community within Wai`anae. It helps our people to have good clean businesses and healthy food to eat. I think I have been and can continue to be a voice for the community.”*
- From the Commercial Illegal Dumping Task Force Coordinator – *“I believe that I was a leader before this project, but I believe more people in my community see me as a leader. I have grown because I had to hold myself responsible as a member of the team, because those I interacted with were watching everything I said or did to see if I could hold my integrity when it came to the issues that we were promoting. This all goes back to building trust with people who typically do not trust.”*

**m. What advice would you offer to other communities undertaking similar work?**

- From the Residential Illegal Dumping Task Force Coordinator (Nānākuli) – *“Knowing your community leaders and having attainable goals you can accomplish when planning*

*out your logic models. Also keep your partners involved when doing activities and planning by asking for their input.”*

- From the Residential Illegal Dumping Task Force Coordinator (Wai`anae) – *“I believe it is important to study and talk to other organizations or groups that have addressed similar issues. By learning from others dealing with similar issues, it will save us lots of time and energy.”*
- From the Nonpoint Source Pollution Task Force Coordinator – *“I would recommend to others to do a community assessment in the beginning. Learn who your community is and start building relationships. My partnership with Kahumana Farm started with someone I would never have imagined would have helped me in the way he did. But he made an introduction between me and some farmers and it grew into a great partnership. I would also recommend being open to involving different kinds of people in their community. People you wouldn’t necessarily agree with are still important. Every voice matters, even the ones you don’t like.”*
- From the Commercial Illegal Dumping Task Force Coordinator – *“I would encourage more engagement with the youth and the youth organizations. Giving the youth a sense of community worth develops their leadership and helps them develop their potential as community leaders in whatever capacity that they choose.”*
- From the Communication Coordinator – *“The advice I would offer is to first listen to the community needs directly from them. By listening you can learn a lot and it will help in assessing problems and finding the right people to help with solutions.”*

**n. On an additional note, the Project Team would like to give advice to EPA when engaging in community-based work in Hawai`i.**

- Take time to read and study the history of Native Hawaiians—the people, values, culture and traditions.
- Recognize the many injustices endured by the Native Hawaiians, which have resulted in barriers to engagement by non-Hawaiians.
- Recognize that unless you were born and raised, and now living in the Native Hawaiian community you desire to engage with, you are seen as an outsider. With all *ha`aha`a* (humility) seek out the community leaders and share with them the opportunity you have that might benefit their community. You are asking for their permission to enter into their community to do the proposed work.
- Once you receive permission from the leaders to engage the community with a particular project, hire people from the community who know and understand how to get work done in their community. Allow the community-based project team to be the face of the project (since you may or may not be received well because you are an outsider).
- Most Native Hawaiians live and work according to Western practices, but they desire to incorporate their traditional beliefs and practices into their lives and projects. Discuss with your team what traditional values and practices are appropriate to incorporate into the project and do all you can to include those practices.
- Use a facilitative style of leadership, not authoritative style. Lay the ground work for what the criteria is that needs to be met, then ask a lot of questions that guide the project team to make the necessary decisions. Whether you agree with their decision or not, as long as it meets the criteria, allow the team to move forward with their decision.

## WHAT NEXT?

Detailed below are the questions and responses to questions, as outlined in the CARE Grantee Final Report, Section IV.

- a. **Will the partnerships created continue to serve the community by protecting the environment and reducing toxics?**
- b. **How will this work be sustained?**
- c. **If neither your organization nor the members of the partnership plan to continue the work, please describe why. Please describe a continuing or next source of funding you have for your work or other groups in your community that have continued the work and have found funding.**

We are grateful to the board of Mohala I Ka Wai – meaning *People thrive where conditions are good* – who has agreed to allow the work of the Ka Wai Ola O Wai`anae Project Team to continue as a committee within their nonprofit organization. The community member who served on the Ka Wai Ola O Wai`anae Advisory Committee sits on the Mohala I Ka Wai board, making this connection for us. Because Pacific American Foundation is not located in the Wai`anae Coast community, we felt that in order to be truly sustainable, we needed to partner with a local organization. Pacific American Foundation has pledged to continue their support of our efforts, as needs arise. We believe that Ka Wai Ola O Wai`anae and Mohala I Ka Wai can exist in a mutually beneficial relationship. The staff of Mohala I Ka Wai will provide their nonprofit experience and organizational structure, while the personnel of Ka Wai Ola O Wai`anae will bring skills and experience in youth engagement, partnership development and social media/online exposure.

Modifying our mission based on the mission of our new parent organization (to build a cultural learning center for traditional agricultural practices) and recognizing the need to narrow our focus, we will continue our work on illegal dumping near beaches and streams. Specifically, we will focus more on educating our community to prevent dumping from happening in the first place, empowering those who witness dumping to report it and continue building capacity with our partners. Some of our future work will include:

- Continue using Facebook site to promote awareness of illegal dumping issues.
- Participating in the City & County of Honolulu's Adopt-A-Stream program.
- Piloting a project with Nānākuli High School, Environmental Club teaching them about environmental justice. We also want to work with the club to stop dumping of trash on school campus. It is our desire to raise the next generation to be leaders and give them the ability and tools to advocate on their own behalf.

We currently have no sources of funding, specific to future Ka Wai Ola O Wai`anae work. The Project Team will volunteer their time until new revenue sources are obtained. To raise funds, our goal is to plan a Wai`anae Festival. We would like to do a Wai`anae Coastline cleanup event, similar to the one we did with Sustainable Coastlines Hawai`i. After community members complete a cleanup at one of the beaches, they could attend a festival where environmental educational materials are provided, local businesses sell products and local musicians provide entertainment.

In addition, we are excited to have our advisory committee community member selected to serve on EPA's National Environmental Justice Advisory Committee (NEJAC), beginning September 2013. By serving on the NEJAC, this member will bring the Native Hawaiian voice to the national discussion on environmental issues facing, in particular, indigenous peoples of Polynesia. This will not only be a benefit to the Wai`anae Coast community, but Native Hawaiians across the State of Hawai`i.



## FEEDBACK AND FOLLOWUP

Detailed below are the questions and responses to questions, as outlined in the CARE Grantee Final Report, Section V.

**a. Please share any thoughts you have about what EPA could do to improve the CARE program.**

- The EPA should continue to fight for funding for the CARE program from Congress. Congress needs to fund programs like this because this does more than just help the environment, it empowers communities to identify problems, find solutions and act. CARE provides an opportunity for communities to get started on a particular environmental issue, obtain knowledge, information and resources and build relationships that enables them to move forward with alternative sources of funding and resources.
- The Project Team's greatest struggle was developing the logic model. In particular, designing inputs and outputs to bring about attitude and behavior change that improves the environment was the most difficult. I suggest EPA provide more training on the use of logic models at CARE conferences, web-based seminars, etc.
- Incorporate community-based social marketing training and practices to assist communities and bringing about behavior change in people (presented under section *Empowering through Education*). Visit <http://www.cbsm.com/public/world.lasso> and <http://www.toolsofchange.com/en/programs/community-based-social-marketing/> for more information.
- Provide additional training on sustainability training and add training or resources on conflict resolution and leadership skill development.

**b. We want to keep in touch and learn about the work that you do after your grant with CARE. Would it be okay for someone from the headquarters CARE team to contact you in the future to talk about how your work is progressing? Are there others we should contact instead of or in addition to you? If so, please provide their contact information.**

**c. Would you be willing to be interviewed for a more in depth case study? YES!**

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## CONCLUSION

EPA developed the Community Action for a Renewed Environment (CARE) program in 2005 in response to community requests for help in addressing environmental concerns and in recognition of the need for a new approach to help communities develop locally-led solutions to address these concerns. CARE is designed to complement national regulatory approaches (which were ineffective in addressing specific community concerns) and help meet community needs by building the capacity of communities to understand and take effective actions at the local level to address existing environmental concerns. The CARE program works with grant recipients to help their communities: 1) bring together stakeholders to form a broad-based partnership; 2) identify problems and solutions to reduce pollutant risks; 3) implement solutions through programs and partnerships; and 4) build project sustainability beyond the grant funding. The goal of this four-step process is to enable communities to build self-sustaining, community-based partnerships that will continue to improve human health and local environments into the future.

The Wai`anae Coast community significantly benefitted from the CARE program having received a CARE Level 1 grant in 2008 and a Level 2 grant in 2011. For purposes of the Level 2 grant (which this report documents), the Ka Wai Ola O Wai`anae – *The Living Waters of Wai`anae* – Project Team implemented solutions to reduce pollutant risks related to residential illegal dumping, commercial illegal dumping and nonpoint source pollution. From a cultural perspective, the CARE grant served to help reconnect this Native Hawaiian community to the `āina (land). It was over 165 years ago that the Great Māhele (which transformed the traditional Hawaiian system of stewarding the `āina for the benefit of all, to privatized land ownership) worked to physically, emotionally and spiritually disconnect the Native Hawaiians from the `āina. Today, this disconnectedness has resulted in a lack of mālama `āina (care for the land), which is apparent along the Wai`anae Coast with the illegal dumping of trash along beaches and roadways and back in the valleys, along with nonpoint source pollution resulting from pesticide use by farmers.

To implement solutions that reduced pollutants and to reconnect the people to the `āina, the Ka Wai Ola O Wai`anae Project Team followed a cyclical framework that empowered them to: ENGAGE the multi-generational community to participate in one of the task forces; EDUCATE the community on the impacts of pollutants on the environment; EXECUTE activities to promote behavior change that reduces pollutants; and EVALUATE progress toward success, with the ultimate goal of empowering the Project Team to sustain the life of the Ka Wai Ola O Wai`anae project beyond EPA funding. Engaging the community and building partnerships proved to be the most difficult task due to barriers related to distrust, economics and time. Educating the community about pollutant impacts and executing activities to mitigate those pollutants proved to be the strength of the Project Team's efforts. When evaluating for success, the Project Team found they did not meet many of their quantitative outcomes; however, they achieved significant qualitative outcomes. These qualitative outcomes include:

1. The Project Team stuck together as they persevered through hard times, adjusting to on-the-ground conditions by trying new strategies based on community feedback.
2. The Project Team's leadership skills were greatly improved in areas of project coordination, partner collaboration and community outreach.
3. The Project Team created small successes that led to bigger successes.

4. The Project Team learned that trust and respect are earned and that it takes time and diligence to build relationships.
5. Seeds have been planted that truly reflects CARE philosophy. It cannot happen any other way!

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## ATTACHMENTS

CARE Grantee Final Report Outline

Residential Illegal Dumping Task Force—Knowledge Test

Brochure: *Keep Waianae Clean – Proper Trash Disposal*

Logic Model – Residential Illegal Dumping Task Force

Logic Model – Commercial Illegal Dumping Task Force

Logic Model – Nonpoint Source Pollution Task Force

Youth Mentees—Developing the Next Generation of Civic Leaders

## CARE Grantee Final Report

All grantees are required to complete a final report and submit a final completed spreadsheet for their project. The CARE Program uses a final report template for all of the CARE grantees (attached).

Some grantees fill out the final report in a question and answer format and others choose a more narrative format that covers all of the information (using section headings, etc. as indicators).

The information you provide will allow EPA to ensure that the program is meeting its overall goals and it will provide a record that other communities and new EPA CARE Project Officers can look to when undertaking similar work. Your report should have enough detail to be useful and enough reflection and insight so that others can gain from your experiences as a partnership and project.

All final reports are posted on the CARE public website ([www.epa.gov/care](http://www.epa.gov/care)) for other communities to access, unless you arrange otherwise with your Project Officer.

**Due dates:** A draft report is due to the EPA Project Officer within 30 days after the end of the project period. The Project Officer will review the draft and share feedback/comments. The grantee will then submit the final report to the Project Officer within 90 days after the end of the project period.

**Note:** If you choose to follow the question and answer format, please feel free to refer to another section of the report, rather than repeat yourself, if you feel a question is asking for information you have covered elsewhere in your final report.

## **CARE Grantee Final Report**

Grantee:  
Project location:  
Project title:  
Grant period:  
Project Manager:  
EPA Project Officer:

### **I. Your Partnership**

Please describe your CARE partnership and explain how it operated. Please make sure that your description includes the following:

- a. Please include a list of your partnership.
- b. What role did your organization play in this partnership? What skills were most important from your organization to implement the project?
- c. Which partners were most active? How?
- d. Which partners were most critical? Why?
- e. Were there critical partners that were not at the table? If yes, which ones and how would their participation have helped?
- f. How did you ensure that the most vulnerable community members were included in the partnership or process?
- g. What role did your EPA Project Officer play in the partnership?
- h. What barriers did your partnership experience and how did you overcome them (distrust, unequal power, control over money, differing priorities, process for reaching consensus, etc.)?
- i. Has this partnership improved relationships among those involved? Please share an example.
- j. Has your organization engaged in a similar process to CARE in which you had a similar role? Please describe briefly.
- k. Is there anything else about your partnership that you would like to share?

### **II. Your Project**

#### For Level II Grantees

Please describe your CARE project and provide copies of important materials that you developed. Please make sure that your description includes the following:

- a. What toxic risks did your project address?
- b. Did your project address both toxic reduction sustainability and partnership sustainability? If so, how? If not, why not?
- c. What toxic reduction strategies did you pursue?
- d. How did you reach agreement on implementation decisions?

- e. Did you reshape your partnership in any way to address strategy implementation? Please explain.
- f. What outside resources (e.g., people, programs, approaches, etc.) were most important to your project?
- g. Was there any environmental issue that EPA seemed to lack the tools or means (e.g., Partnership Programs, data tools, other expertise) to address? If so, please describe the situation or need you had.
- h. How did you build momentum over the course of your project? Did you secure any “early wins” to help build momentum? Did you look for additional funding early on? What was acquired?
- i. What were the significant *outputs* of your project (meetings held, materials developed, people trained, etc.)?
- j. What were your project’s most significant *outcomes* (changes in policy, behavior and practice, e.g., auto shops’ shift to less toxic materials, ban adopted on school bus idling, change in local agencies’ policy or procedures, school district commitment to IPM for pest control, etc.)?
- k. What specific reductions in environmental risks did your project achieve?
- l. How did functioning as a partnership aid in achieving these reductions?
- m. Were there differences between your original plan and what actually occurred in your project? Did you achieve your objectives? Please explain. What objectives were not met and why?
- n. What other resources (not already covered in your discussion of your partnership or outside resources above) did your project mobilize, both financial and in kind?

### III. Reflection

- a. How likely is it that the progress achieved could have been made without your CARE partnership?
- b. What do you consider your project’s greatest achievement?
- c. What was your greatest challenge and how did you deal with it?
- d. What would you do differently next time in terms of organizing and structuring your partnership to achieve your project objectives?
- e. How might you have been more strategic in designing or implementing your project?
- f. If you chose to create one, did you find using a logic model or other goal-driven model helpful? Please explain. Did the model change over time? If so, how?
- g. To what extent did your CARE community communicate or engage with other CARE communities and how was that interaction helpful?
- h. Did media coverage play a role in your project? If so, please explain.
- i. In what ways did you rely on EPA for assistance (assessing risks in your community, conflict resolution, partnership support, voluntary programs, such as Tools for Schools or Pollution Prevention)?
- j. What role did your Project Officer and other EPA staff play in your work? What would you have liked more of or less of?
- k. To what extent do you think that this project increased the capacity of your organization? Your partnership? Your community? Please provide examples.
- l. Did your project produce any new “community leaders?” Please describe.

m. What advice would you offer to other communities undertaking similar work?

**IV. What Next?**

- a. Will the partnerships created continue to serve the community by protecting the environment and reducing toxics?
- b. How will this work be sustained?
- c. If neither your organization nor the members of the partnership plan to continue the work, please describe why.
- d. Please describe a continuing or next source of funding you have for your work or other groups in your community that have continued the work and have found funding.

**V. Feedback and Follow up**

- a. Please share any thoughts you have about what EPA could do to improve the CARE program.
- b. We want to keep in touch and learn about the work that you do after your grant with CARE. Would it be okay for someone from the headquarters CARE team to contact you in the future to talk about how your work is progressing? Are there others we should contact instead of or in addition to you? If so, please provide their contact information.
- c. Would you be willing to be interviewed for a more in depth case study?



## IMPACTS OF TRASH ON THE ENVIRONMENT KNOWLEDGE TEST

Check the TOP THREE MOST littered items on our beaches

- Dirty socks
- Cigarette butts
- Fishing line
- Snack wrappers & fast food packaging
- Beverage containers & lids
- Slippers

True or False—Cigarette butts contain toxic chemicals that leak out into the environment:

- True. Filters contain trace amounts of cadmium, arsenic and lead, which are hazardous to our health and the environment.
- False. The filters are non-toxic and nutritious for the infants and animals that may swallow them.

Check all that apply for plastic bottles, cups and bags:

- When littered on the ground, wind blows plastic into streams and the ocean.
- Plastic enhances the beauty of our beaches
- Plastic floats for hundreds of miles in the ocean.
- Marine animals mistake plastic for food, eat it and die.

True or False – Plastic rings used to hold beverage cans together can get wrapped around sea animals' necks and cause them to suffocate as they grow.

- False
- True

A curious sea bird or mammal that eats trash can die of starvation or malnutrition if the trash blocks the animal's intestinal tract.

- False
- True

What happens when fish eat trash? Check all that apply.

- Toxic chemicals from trash collect inside the fish
- The fish grows ten times its size and begins to glow in the dark
- People eat the fish and get sick because of the toxic chemicals in the fish

Pet waste is one of the many little sources of pollution that can add up to a major source of bacteria and excess nutrients that can cause algae blooms (overgrowth of aquatic plants that smother other aquatic life). These blooms use up the oxygen in the water that fish and other organisms need to breathe. You can take action by (there is only one correct answer):

- Use plastic bags to pick up pet poop and throw into trash can
- Throw pet poop over the fence into the stream
- Leave the poop on the ground and hope it biodegrades quickly

Why do you think people do not properly dispose of their trash into trash or recycle bins? Check all that apply.

- They are lazy
- They think the trash makes the beach look beautiful
- They lack respect for other people. They do not care how their actions impact other people.
- They lack respect for the `āina
- They think someone else will clean up after them

What impacts does throwing trash have on our community? Check all that apply.

- People want to visit our community because of its trashy beaches.
- Broken glass and loose pieces of metal can cause physical injury
- Trash attracts trash, so people keep dumping their trash in our community
- We have to pay more tax dollars to pay for the government to clean up our trash

Plastics bags can easily be blown in the wind and become litter around our neighborhoods, parks and beaches. Check all the ways you can reduce the amount of plastic bags you use and properly dispose of them so they cannot become litter.

- Bring your own reusable shopping bags to the store and do not use plastic bags at all.
- Reuse plastic bags for trash and cleanups.
- Recycle plastic bags at your local supermarket.
- Bag the bags—stuff the plastic bags into one bag before putting them into the trash.
- Tie a knot in the bag before putting into the trash.
- Leave loose plastic bags in the back of your pickup truck.

RESIDENTIAL ILLEGAL DUMPING TASK FORCE					
INPUTS	OUTPUTS What we did		OUTCOMES How we hoped to influence the community		
<i>What we invest! Time, money, partners, equipment, facilities</i>	<b>ACTIVITIES</b> <i>What we do! Workshops, publications, field days, demonstrations, etc.</i>	<b>PARTICIPANTS</b> <i>Who we reach! Participants, customers</i>	<b>SHORT TERM</b> <i>Change in attitude, awareness, knowledge, skills, motivation</i>	<b>MEDIUM TERM</b> <i>Change in behaviors, practices, policies, procedures</i>	<b>LONG TERM</b> <i>Change in conditions – environmental, social, economic, political</i>
<p><b>Time:</b> October 1, 2011 through September 30, 2013</p> <p><b>Funding:</b> CARE 2</p> <p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• 2 Task force Coordinators</li> <li>• Leeward Kai Canoe Club</li> <li>• Na Keiki O Ka Mo`i Canoe Club</li> <li>• Mākaha Canoe Club</li> <li>• Leihoku Elementary School</li> <li>• Wai`anae &amp; Nānākuli Boys &amp; Girls Clubs</li> <li>• Ho`omalua O Na Kamalii</li> </ul>	<p><b>Beach Cleanups</b></p> <ul style="list-style-type: none"> <li>• Pokai Bay – 1 baseline + 3 cleanups</li> <li>• Nanakuli Beach – 1 baseline + 3 cleanups</li> <li>• Makaha Beach – 1 baseline + 2 cleanups</li> <li>• Maili Beach – 1 baseline + 2 cleanups</li> <li>• Knowledge tests on environmental impacts of trash</li> <li>• Track &amp; report amount of waste collected at each beach cleanup event.</li> <li>• Develop brochure, <i>Keep Waiānae Clean, Proper Trash Disposal</i> to promote</li> </ul>	<ul style="list-style-type: none"> <li>• 223 (actual)/150 (goal) total community members participated in 14 beach cleanups at 4 beaches.</li> </ul>	<ul style="list-style-type: none"> <li>• 57 (actual)/120 (goal) participants took the knowledge test, increasing their knowledge of impacts of trash on the environment.</li> <li>• 64/150 participants increased in knowledge on the use of bulky item pick up &amp; convenience center through use of a brochure.</li> <li>• 64/150 participants increased in knowledge on how to report illegal dumping through use of brochure.</li> </ul>	<ul style="list-style-type: none"> <li>• 223 (actual)/150 (goal) participants modeled to beach users on day of event, promoting the need to properly dispose of trash on the beach.</li> <li>• 0%/25% of beach cleanup participants shared anecdotal stories on Facebook of changes in their attitudes and behaviors related to dumping of trash on the beach.</li> <li>• 0/5 beach cleanup participants reported on Facebook that they used bulky item pick up or the convenience center to properly dispose of waste not</li> </ul>	<ul style="list-style-type: none"> <li>• 50% (goal) reduction of trash at each of the four beaches based on the number of bags of trash collected between the baseline and final cleanup events:</li> <li>• 92% (actual) reduction of trash at Nānākuli Beach</li> <li>• 50% reduction of trash at Ma`ili Beach</li> <li>• 80% reduction of trash at Poka`i Bay Beach</li> <li>• 67% reduction of trash at Mākaha Beach</li> </ul>

RESIDENTIAL ILLEGAL DUMPING TASK FORCE					
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<i>What we invest! Time, money, partners, equipment, facilities</i>	<b>ACTIVITIES</b> <i>What we do! Workshops, publications, field days, demonstrations, etc.</i>	<b>PARTICIPANTS</b> <i>Who we reach! Participants, customers</i>	<b>SHORT TERM</b> <i>Change in attitude, awareness, knowledge, skills, motivation</i>	<b>MEDIUM TERM</b> <i>Change in behaviors, practices, policies, procedures</i>	<b>LONG TERM</b> <i>Change in conditions – environmental, social, economic, political</i>
<ul style="list-style-type: none"> <li>• Nānākuli High School</li> <li>• City &amp; County of Honolulu</li> <li>• West Side Stories</li> <li>• Sustainable Coastlines</li> </ul>	the use of bulky item pick up and the Convenience Center.			collected during weekly roadside cleanups. <ul style="list-style-type: none"> <li>• 0/5 beach cleanup participants reported on Facebook that they reported illegal dumping to the local authorities.</li> </ul>	
	<b>Youth Mentorship</b>	4 (actual)/6 (goal) high school students	<ul style="list-style-type: none"> <li>• 4 youth Improved skills in leadership &amp; project coordination by planning and conducting beach cleanups.</li> </ul>	<ul style="list-style-type: none"> <li>• 1 youth mentee was selected by football team to lead &amp; coordinate community cleanup events.</li> </ul>	
	<b>Mali Beach Sign Waving Rally along Kamehameha Hwy</b>	<ul style="list-style-type: none"> <li>• Boys &amp; Girls Club</li> <li>• Waianae HS ROTC &amp; cheerleaders</li> <li>• Nanakuli HS students</li> </ul>	<ul style="list-style-type: none"> <li>• 200+ participants waved signs promoting malama aina (care for the land) &amp; stop illegal</li> </ul>	<ul style="list-style-type: none"> <li>• (General terms) As participants become more aware of the need to mālama `āina, they begin to</li> </ul>	

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		<ul style="list-style-type: none"> <li>• Nanakuli All Star baseball team</li> <li>• Leeward Paniolos</li> <li>• Makaha Civic Club</li> <li>• Rise Up</li> <li>• Hoomalu O Na Kamalii</li> <li>• Nani O Waianae</li> <li>• Learning Disabilities of Hawai`i</li> <li>• Waianae Tigers</li> <li>• Coach Kepa &amp; team</li> <li>• Leeward Kai Canoe Club</li> <li>• Drivers along hwy</li> </ul>	<p>dumping.</p> <ul style="list-style-type: none"> <li>• 186 people signed a pledge stating they recognize the need to take ownership &amp; responsibility for resources, &amp; efforts first begin at home. Will encourage others to do the same.</li> <li>• 250 motorists read signs as drove by rally, increasing their knowledge of the need to malama aina.</li> <li>• Hawai`i News Now and KHON2 filmed event &amp; showed on 6 pm news, bringing awareness of issue to cmtly at large.</li> </ul>	<p>make changes at home and share info with others.</p>	



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	<b>Make and distribute Cigarette Butt Cans</b>	<ul style="list-style-type: none"> <li>Leihoku Elementary 5<sup>th</sup> graders and their families/friends who smoke</li> </ul>	<ul style="list-style-type: none"> <li>99 students &amp; 4 teachers increased their knowledge of the impacts of cigarette butts on the environment.</li> <li>99 students signed a pledge to share w/2 other people the impacts of cigarette butts on the environment. 96% of the students followed through on sharing information.</li> <li>Article published in Westside Stories Newspaper to bring awareness to cmtty as a whole.</li> </ul>	<ul style="list-style-type: none"> <li>76 students took home cans. 71 of the cans (93%) were used to dispose of cigarette butts. Many youth indicated family/friends previously threw cigarette butts on ground.</li> </ul>	<ul style="list-style-type: none"> <li>Over 2,140 cigarette butts were disposed of in the cans.</li> </ul>

COMMERCIAL ILLEGAL DUMPING TASK FORCE					
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<p><b>Time:</b> October 1, 2011 through September 30, 2013</p> <p><b>Funding:</b> CARE 2</p> <p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• Task force Coordinator</li> <li>• Olohana Fleet</li> <li>• AC Services</li> <li>• City &amp; County Honolulu, Dept of Environmental Services</li> <li>• Dept. of Health</li> <li>• Community members who serve on task force</li> </ul>	<p><b>Roundtable</b></p> <ul style="list-style-type: none"> <li>• Networking</li> <li>• Trainings</li> </ul>	<p>Outreached to 37 truckers/companies to participate on Roundtable</p>	<ul style="list-style-type: none"> <li>• 0 (actual)/10 (goal) partner companies served on the roundtable</li> <li>• 0 (actual)/10 (goal) partners increase awareness &amp; knowledge of proper ways to dispose of commercial waste.</li> <li>• 0/10 partners increase knowledge of how pollutants impact health &amp; environment.</li> <li>• 0/25 truckers (not all may be serving on the roundtable) signed a pledge agreeing to implement “Green</li> </ul>	<ul style="list-style-type: none"> <li>• 0 (actual)/3 (goal) trucking companies committed to change practices to include proper legal dumping of soil.</li> </ul>	

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			Practices” in their companies.		
	<b>Honolulu 311 App or Illegal Dumping Hotline</b>	<ul style="list-style-type: none"> <li>• City &amp; County Honolulu</li> <li>• Task Force Members</li> </ul>	<ul style="list-style-type: none"> <li>• 4 (actual)/25 (goal) reports of illegal dumping made to Hotline by task force members doing drive-around program.</li> </ul>		
	<b>State Task Force on Vehicle Tires</b> <ul style="list-style-type: none"> <li>• Act 271 signed by governor on 7/6/2012</li> <li>• Task force study ways to prevent or control the problem of abandoned tires.</li> </ul>	<ul style="list-style-type: none"> <li>• Dept. of Health</li> <li>• Dept. of Land &amp; Natural Resources</li> <li>• City &amp; Council Honolulu</li> <li>• Police Dept.</li> <li>• Elected officials</li> <li>• Neighborhood boards</li> <li>• Tire recycling industry</li> <li>• Vehicle recycling industry</li> <li>• Tire retailers</li> <li>• Auto dealers</li> <li>• Navy</li> </ul>	<ul style="list-style-type: none"> <li>• Task Force Coordinator attended 3 of 3 meetings to date. Task Force working to decide next steps.</li> </ul>		

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	<b>Enforcement</b> <ul style="list-style-type: none"> <li>Cmty-based training by police to become factual witness at dump site</li> <li>Gain police and attorney general (AG) support to prosecute illegal dumping crimes</li> </ul>	<ul style="list-style-type: none"> <li>District 8 Police (Waianae)</li> <li>Attorney General office</li> <li>Community member taking lead in networking</li> </ul>	<ul style="list-style-type: none"> <li>0 (actual)/3 (goal) community members trained to become factual witnesses</li> </ul>		
	<b>Drive Around Program</b> <ul style="list-style-type: none"> <li>Task Force members drive around cmty monitoring for illegal dumping</li> </ul>	<ul style="list-style-type: none"> <li>Residents, Farmers, Commercial Business Owners</li> </ul>	<ul style="list-style-type: none"> <li>3 (actual)/10 (goal) entities were engaged &amp; educated on how to reduce pollutants into the environment by properly disposing of waste.</li> </ul>	<ul style="list-style-type: none"> <li>Cmty members no longer dump trash along the roadways because they know they are being monitored.</li> </ul>	

COMMERCIAL ILLEGAL DUMPING TASK FORCE					
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	<b>Visual monitoring of illegal dumpers</b> <ul style="list-style-type: none"> <li>Installation of camera on private property to monitor illegal dumping.</li> </ul>	<ul style="list-style-type: none"> <li>Task Force Members</li> <li>Private property owners</li> </ul>	<ul style="list-style-type: none"> <li>0 (actual)/3 (goal) people are reported to C&amp;C Honolulu for illegal dumping.</li> </ul>		



NONPOINT SOURCE POLLUTION TASK FORCE					
INPUTS	OUTPUTS What we did		OUTCOMES How we hoped to influence the community		
<i>What we invest! Time, money, partners, equipment, facilities</i>	<b>ACTIVITIES</b> <i>What we do!</i> Workshops, publications, field days, demonstrations, etc.	<b>PARTICIPANTS</b> <i>Who we reach!</i> Participants, customers	<b>SHORT TERM</b> <i>Change in attitude, awareness, knowledge, skills, motivation</i>	<b>MEDIUM TERM</b> <i>Change in behaviors, practices, policies, procedures</i>	<b>LONG TERM</b> <i>Change in conditions – environmental, social, economic, political</i>
<p><b>Time:</b> October 1, 2011 through September 30, 2013</p> <p><b>Funding:</b> CARE 2</p> <p><b>Facilities:</b> Kahumana Farms</p> <p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• Task force Coordinator</li> <li>• Kahumana Farms</li> <li>• Oahu Resource Conservation &amp; Development Council (ORC&amp;D)</li> <li>• Natural Resource Conservation Service (NRCS)</li> <li>• West Oahu Soil &amp; Water Conservation</li> </ul>	<p><b>Integrated Pest Management (IPM) Workshop</b></p> <ul style="list-style-type: none"> <li>• Provide follow on assistance to farmers who choose to implement IPM practices</li> <li>• Produce video production of training to continue outreach to farmers</li> </ul>	<ul style="list-style-type: none"> <li>• Outreached to 37 (actual)/35 (goal) produce farmers to attend workshop</li> </ul>	<ul style="list-style-type: none"> <li>• 6 (actual)/4 (goal) farmers attended workshop gaining knowledge of IPM practices that reduce &amp; control pests, reduce soil erosion, &amp; how to access services &amp; grant funds for conservation planning</li> <li>• 100% increase in knowledge in IPM practices by all farmers</li> </ul>	<ul style="list-style-type: none"> <li>• 0 (actual)/3 (goal) farmers implemented at least one IPM practice learned from the workshop into their farming techniques.</li> <li>• 0/2 farmers applied to ORC&amp;D, NRCS or Oahu SWCD to develop a conservation plan.</li> <li>• 0/2 farmers applied for financial assistance from NRCS to implement IPM projects.</li> </ul>	

NONPOINT SOURCE POLLUTION TASK FORCE					
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<i>What we invest! Time, money, partners, equipment, facilities</i>	<b>ACTIVITIES</b> <i>What we do!</i> Workshops, publications, field days, demonstrations, etc.	<b>PARTICIPANTS</b> <i>Who we reach!</i> Participants, customers	<b>SHORT TERM</b> <i>Change in attitude, awareness, knowledge, skills, motivation</i>	<b>MEDIUM TERM</b> <i>Change in behaviors, practices, policies, procedures</i>	<b>LONG TERM</b> <i>Change in conditions – environmental, social, economic, political</i>
District (W. Oahu SWCD) <ul style="list-style-type: none"> <li>• Produce farmers</li> <li>• Pig farmers</li> <li>• City &amp; County of Honolulu</li> </ul>	<b>Inoculate Dry Litter System (IDLS) &amp; Indigenous Micro-organism (IMO) practices</b> <ul style="list-style-type: none"> <li>• Workshop evaluation form that identifies actions pig operators want to take</li> <li>• Produce video production of training to continue outreach to pig operators</li> <li>• Provide follow on assistance to farmers who choose to implement IDLS &amp; IMO practices</li> </ul>	<ul style="list-style-type: none"> <li>• Outreached to 40 (actual)/25 (goal) pig farmers</li> <li>• Oahu RC&amp;D</li> <li>• Crop Care Hawai`i LLC</li> <li>• NRCS</li> <li>• W. Oahu SWCD</li> <li>• Hawai`i Natural Farming Team from Univ. of Hawai`i</li> <li>• Kahumana Farm</li> <li>• Hawai`i BioEnergy Producers Cooperative</li> <li>• Pig operators</li> <li>• 4-H Club</li> </ul>	<ul style="list-style-type: none"> <li>• 16 (actual)/15 (goal) farmers attended workshop gaining knowledge of IDLS &amp; IMO practices, &amp; how to access services &amp; grant funds for conservation planning</li> <li>• 100% increase in knowledge of IDLS &amp; IMO practices by all farmers</li> </ul>	<ul style="list-style-type: none"> <li>• 0 (actual)/3 (goal) farmers implemented at least one practice learned from the workshop into their farming techniques.</li> <li>• 1 (actual)/2 (goal) farmer applied for services or grants for conservation planning</li> </ul>	

NONPOINT SOURCE POLLUTION TASK FORCE					
INPUTS	OUTPUTS What we did		OUTCOMES How we hoped to influence the community		
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	<b>Waianae Inactive Landfill</b> <ul style="list-style-type: none"> <li>• Restore &amp; maintain vegetative cover</li> <li>• Limit access by public, whose activities destroy the cover</li> </ul>	<ul style="list-style-type: none"> <li>• City &amp; County of Honolulu, Solid Waste Management</li> </ul>	<ul style="list-style-type: none"> <li>• Identify reasons why C&amp;C Honolulu are not properly maintaining vegetative cover of landfill.</li> <li>• Work with C&amp;C Honolulu toward solutions</li> </ul>	<ul style="list-style-type: none"> <li>• City &amp; County of Honolulu follow up on responsibilities to maintain the landfill cover, thereby preventing NPSP.</li> <li>• Deny public access to area to prevent activities that destroy the vegetative cover (i.e. off road vehicle use)</li> </ul>	<ul style="list-style-type: none"> <li>• (General terms) By adding a vegetative cover, reduce the amount of soil that becomes NPSP in local streams.</li> </ul>