



# ***Faga'alu Village Watershed Management and Conservation Plan***

**American Samoa**

**Prepared by the Village of Faga'alu in collaboration with the Land-based  
Sources of Pollution (LBSP) Local Action Strategy Group  
(Funded by NOAA Coral Reef Conservation Program)**

**2012-2013**



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## **ACRONYMS**

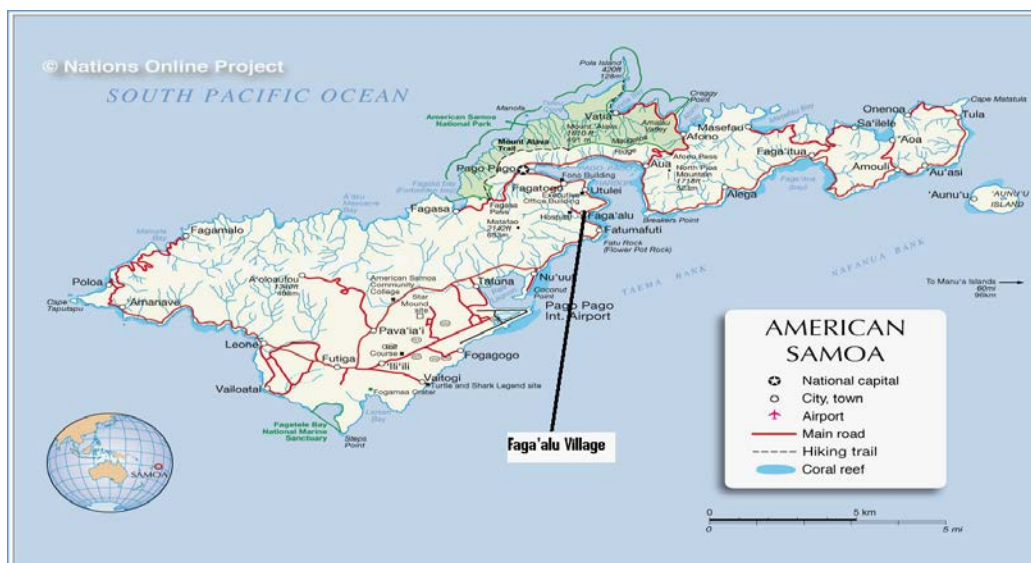
AS	American Samoa
ASCC	American Samoa Community College
ASPA	American Samoa Power Authority
ASWQS	American Samoa Water Quality Standard
CAP	Conservation Action Plan
CRAG	Coral Reef Advisory Group
CRCP	Coral Reef Conservation Program
CZMP	Coastal Zone Management Program
DMWR	Department of Marine and Wildlife Resources
DOC	Department of Commerce
DOE	Department of Education
DPH	Department of Public Health
DPW	Department of Public Works
EPA	Environment Protection Agency
LAS	Local Action Strategy
LBSP	Land-based Sources of Pollution
LBJ	Lincoln B. Johnson
NOAA	National Oceanic Atmospheric Administration
NRCS	Natural Resource Conservation Service
OSA	Office of Samoan Affairs
PIRO	Pacific Island Regional Office
SDSU	San Diego State University
TNC	The Nature Conservancy
USDA	United States Department of Agriculture
VWC	Village Watershed Committee

## I. INTRODUCTION

Several watersheds in American Samoa fail to meet the American Samoa Water Quality Standards (ASWQS). This is often based on measurements such as turbidity and nutrients taken from streams. High levels of solid waste (trash) in the streams also detract from the environment and add human health risks by promoting standing water and flooding, and therefore mosquito breeding and increased risk of *leptospirosis*, among other threats. High turbidity, high nutrient levels and trash are all common signs of poor environmental management within communities.

The village of Faga'alu is situated in one of the watersheds that does not meet ASWQS, and is therefore on the AS-EPA 303(d) list of impaired waters (American Samoa Environmental Report 2010). The parameters that cause Faga'alu to fail the ASWQS are total Nitrogen, total Phosphorous, Turbidity, Dissolved Oxygen levels and bacteria (*Enterococcus*) counts. Faga'alu village is acutely aware of some of these issues, particularly turbidity, and are motivated to address this as well as seeking assistance outside of the village to protect their resources.

This village plan for watershed management in Faga'alu was developed by the village community, in collaboration with local and federal resource partners using information collected from community workshop and participatory tools used to identify key threats to the watershed. The plan is a guide to the village to improve management of the resources within the watershed in an adaptive management. It is also a guide to better inform the resource partners on how to support and provide resources to manage the village watershed. The village has the ownership of this plan and will work collaboratively with the resource partners to facilitate and implement activities in the plan.



## **II. HISTORY**

A NOAA Coral Reef Conservation Program (CRCP) prioritization workshop with American Samoa resources managers held in January 2010, identified Faga’alu (together with Vatia and Nu’uuli) as a priority watersheds to work in. The prioritization process was based on the following criteria (NOAA CRCP Priority Settings for Am. Samoa 2010):

1. Biological value: Coral health, diversity, resilience and critical function.
2. Degree of Risk and Threat: Land-based sources of pollution, water quality, population pressures, development, and global warming impacts.
3. Management Effectiveness: Existing management, capacity, support, village organization, political will, cultural value, and agency collaboration

The Land Based Sources of Pollution (LBSP) working group<sup>i</sup> initiated a Participatory Learning and Action (PLA) process in Faga’alu in May 2011. The LBSP working group is chaired by the American Samoa Environmental Protection Agency (AS-EPA) and consists of the American Samoa Community College (ASCC) Land Grant program and its Marine Science program, the Department of Marine and Wildlife Resources (DMWR), the Department of Commerce Coastal Zone Management Program (CZMP), the Coral Reef Advisory Group (CRAG), the United States Department of Agriculture, and the NOAA Fisheries Pacific Island Regional Office (PIRO). The PLA process is a major component of the village watershed project which was funded by the NOAA Coral Reef Conservation Program and facilitated by NOAA Pacific Islands Regional Office (PIRO) field office. This process requested the villages to identify their resources, what the threats to their environment are, past and present uses of their environment, and the environmental state they envision for their village in the future. The process assisted the village to develop this plan as a guide to build partnership with government and private sectors and to ensure sustainable management of the village resources from ridge to reefs.

The Nature Conservancy (TNC) provided support through its Conservation Action Planning (CAP) tools that were utilized, with assistance from Palau site staff Steven Victor and Umiich Sengebau, to refine information collected from the PLA workshop. The CAP tools were used in a focus group meeting with the Faga’alu village planning committee to guide discussions among participants to develop key objectives and targets, as well as to improve on the management actions provided during the PLA workshop.

## **III. GEOGRAPHY**

The Faga’alu Watershed is located southwest of Pago Pago near the center of Tutuila island in American Samoa. The watershed comprises of about 0.96 square miles of land area (Figure 1). The inland boundaries of the watershed are delineated by steeper mountain peaks and ridges. Its shoreline is situated between Tulutulu Point and Niuloa Point where its bay lies between the two. In the context of water quality, Faga’alu Bay is also considered a portion of “outer Pago Pago Harbor” (American Samoa Watershed Protection Plan, 2000).



Faga’alu village is the location of the only hospital in American Samoa known as the Lyndon B. Johnson Tropical Medical Center. It is also the home to the “Marlins” Matafao Elementary School and various businesses. In addition, the village has the public park that is popular for recreational use and sports such as crickets, soccer and football.

*Figure 1: Satellite image of Faga’alu watershed*



#### **IV. FAGA’ALU COMMUNITY PROCESS**

Faga’alu village is located in the central area of Tutuila with a human population of about 910 people (Census 2010). The village watershed was selected because it is one of the priority sites for American Samoa’s coral reef management (NOAA CRCP Priority Settings for Am. Samoa 2010) and a priority watershed for the American Samoa’s Environment Protection Agency (EPA) for not meeting the American Samoa water quality standards. In addition, Faga’alu village is a pioneer community in any environment management programs and planning at the village level. Faga’alu village is a pilot watershed in this initiative, which provides an opportunity to carefully develop a potential process that will build local capacity and expose potential to be involved, build partnership between village and government, and enhance and promote village

stewardship to take ownership and responsibility in managing their resources from land to reefs.

The Faga'alu PLA process was developed to meet and address the following objectives:

- To raise awareness and build the capacity of village community to enable them to undertake specific environmental management functions within a sustainability framework;
- To collect baseline information to assist in the development of a Village Watershed Action Plan;
- To build partnership and collaboration between the village, resource agencies and outside partners;
- To gain, enhance and promote a better understanding of the watershed issues and resources in Faga'alu;
- To build community stewardship of their environment and resources.

In June 24<sup>th</sup> and 25<sup>th</sup>, Faga'alu village was engaged in a PLA community workshop to help meet the objectives of the process and the project. PLA tools were used to identify threats to the village watershed and potential solutions to minimize and improve management of the watershed and its resources. The participants were also engaged in constructing a historical profile of Faga'alu to better understand the changes within the watershed that impacted the resources and community. (See Appendix A) In addition, a resource mapping tool was used during the workshop to obtain knowledge and information from the participants on the occurrence, distribution, and the use of the resources within their watershed. The resource map developed by the participants was used to formulate the watershed plan for the village. (See Appendix B)



*Faga'alu PLA Community Workshop in June 24<sup>th</sup>-25<sup>th</sup>, 2011 (Photos by Fatima S. Le'au)*

The Faga'alu Village Watershed Management program was implemented using the PLA process that engages community from the beginning through the following steps:

1. Initial meeting with the village point of contact – Village Mayor
2. Implementation of an Education & Awareness Campaign targeting youth groups

3. Facilitate a PLA Training of Trainers by NOAA-PIRO field staff (to prepare trainers/facilitators for the PLA village workshops)
4. Hold the Village PLA Watershed workshops
5. Select and organize a village watershed committee (VWC)
6. Hold CAP meetings with VWC
7. Development of a Faga'alu Village Watershed Action Plan
8. Internal and External Review of village action plan
9. Presentation of final plan by VWC to the Faga'alu village council of chiefs
10. Implementation and Evaluation

The outcomes of the PLA process are presented in the Faga'alu Village Watershed Management and Conservation Plan section of this document.



*Faga'alu Village Watershed Planning Committee*

## **V. PROJECT TEAM AND SCOPE**

The process for the village watershed project was undertaken in multiple efforts between the American Samoa Government (ASG) departments, NOAA-PIRO, The Nature Conservancy, and Faga'alu village. The first effort was conducted by The Land Based Sources of Pollution (LBSP) Working Group through education and outreach activities and a community participatory workshop using the PLA process. Focus group meetings within the village were held with members from The Nature Conservancy using the CAP tools. The personnel in the LBSP are based in American Samoa, while the TNC members travelled to American Samoa from Palau.

The other component of the project team was a 'village watershed working group', which was formed by members of the community selected from Faga'alu village by the village mayor (Pulenu'u). The ages of the village working group ranged from 15 to 62 years old, and consisted of people employed at ASG agencies, LBJ hospital, a former senator, College and high school students. Their main role is to act as representatives of their village to plan and develop the village watershed management plan with technical assistance and advice from the LBSP LAS group.



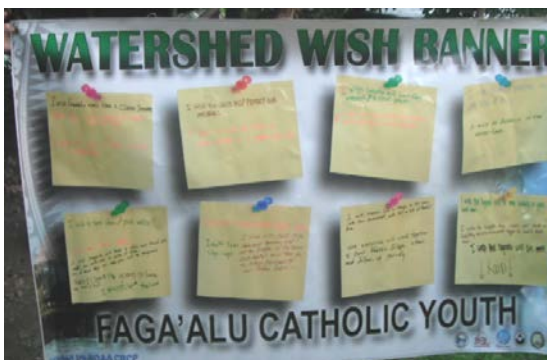
The scope of the project team was to create a realistic conservation action plan that will safeguard and improve the environmental quality of the village. The village community and the LBSP LAS group have worked together through several planning meetings, clean-up activities, and outreaches to enhance collaboration, build trust, and promote community stewardship.



*Faga'alu participants writing wishes on the Village Watershed Wish Banner (photos by Fatima S.Le'au)*



*PLA Community Workshop 2011 – Participants discussing threats and potential solutions (photos by Fatima S.Le'au)*



*Village Environment Wish Banners (Photos by Fatima S. Le'au)*

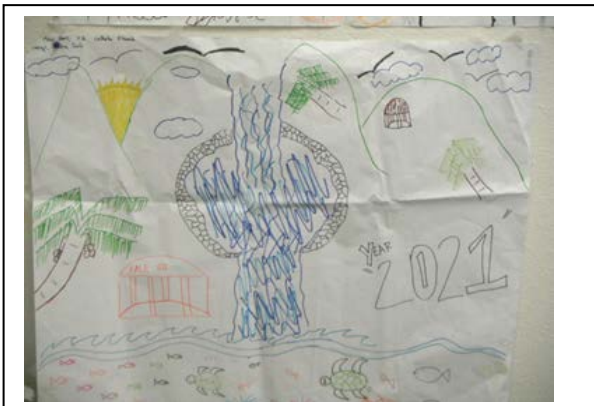
## **VI. VISION STATEMENT**

The PLA community workshop conducted in June 24<sup>th</sup>-25<sup>th</sup>, 2011 helped Faga'alu village to develop a vision statement that presents the village's desire, willingness, hopes and expectations for a healthy and clean watershed. In addition, the vision statement is recognized by the village as the ultimate goal to plan and implement actions in managing their watershed. The vision is as follows:

*“Faga'alu Watershed contains a community that is well informed and actively involved in its stewardship. It hosts a healthy and clean environment from ridge to reefs that is safe for the children to be in, visitors, schools, neighborhoods and local shops. In addition, community livelihoods are well supported through sustainable agriculture and fisheries. The village council takes ownership in managing the watershed in collaboration and partnership with residents, land owners, hospital, school, business owners, local and federal government to protect and conserve watershed for future generations of Faga'alu.”*



*Drawings by village participants from the PLA Workshop that depict the Community shared vision*



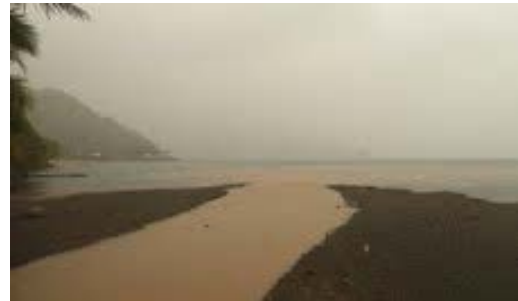
## **VII. KEY THREATS TO VILLAGE WATERSHED**

Faga'alu village has identified the following as the key threats to the village watershed during the PLA community workshop. These threats were carefully discussed by the village watershed planning committee during the CAP focus group meeting and are currently the priority issues of the village, in collaboration with government partners, for best management actions and conservation measures.

Key Threats:

1. Trash
2. Sedimentation
3. Declined Fisheries

The Faga'alu Watershed Management and Conservation Plan provides key objectives and management actions for each threat. In addition, it provides supporting partners to assist the village community, who is the lead in all the management actions. The objectives, actions and timeline suggested in this plan are formulated in an adaptive manner so that the village will be able to take ownership in the management from ridge to reefs, foster stewardship and enhance partnership with the government.



*These photos were taken by Alex Messina, a graduate student at the San Diego State University (SDSU), during his project on "Sediment flux dynamics in the Faga'alu reefs". - 2012*



**FAGA’ALU VILLAGE WATERSHED MANAGEMENT AND  
CONSERVATION PLAN**

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**Faga’alu Watershed Management and Conservation Plan  
2012-2013**

**Threat: Trash**

Trash is perceived to be one of the major threats impacting the village streams, beaches and coastal areas. There is poor management practices and litter practices by people within the village as well as those visiting from outside to the hospital, park, school and local shops. The village would like to be well educated and informed on ways to better manage their environment and become stewards of the environment.

**Objective1:** By 2013 50% of Faga’alu residents are greatly aware of impacts of trash and other environmental issues in their village and are working cooperatively to keep the village clean.

**Strategic Actions**

- 1.1 Determine the most effective education and awareness campaign to raise awareness of trash problem and to share results that highlights impact of trash to the village
- 1.2 Implement the education and awareness campaign every six months with pre and post surveys to determine effectiveness
- 1.3 Faga’alu village Mayor and committee work with appropriate agencies to support the implementation of the education and awareness campaign to village and other watershed communities
- 1.4 Faga’alu committee assist the LBSP LAS agency members to facilitate education and outreach programs at Matafao Elementary School each quarter

**Lead:** Village Mayor

**Supporting Individuals/Organizations:**  
ASEPA, ASPA, OSA, NOAA-PIRO, TNC, DPH, LBJ, Le Tausagi, DMWR, ASCC Land grant, CRAG, DOE, USDA-NRCS

**Objective 2:** By 2012, three village clean-up committees are established to take responsibility in cleaning and reporting on collected trash from designated areas in Faga’alu village.

- 2.1 **Strategic Actions** Determine a clean-up and reporting process that will be used by designated committees for the village clean-ups
- 2.2 Identify community members that are willing to take part in the clean-up process and to be part of each three committees
- 2.3 Hold regular meetings with each committees to discuss the clean-up and reporting process
- 2.4 Collaborate with the LBSP LAS working group to secure necessary support to implement village clean-ups
- 2.5 Village participation in the ICC effort with appropriate agencies
- 2.6 Secure more trash bins and have them available in the village
- 2.7 Evaluate trash collected through analyzing reports from the village clean up committees

<b>Lead:</b> Village Council and Mayor	<b>Supporting Individuals/Organizations:</b> ASEPA, CRAG, ASPA, OSA, DMWR, ASCC Land grant, NOAA-PIRO, DPH, USDA-NRCS
<b>Objective 3:</b> By the end of December <b>2012</b> , Faga’alu village has established a village inspection team lead by the village mayor to undertake a monthly visit within the village to ensure that the community is less likely to be impacted by trash.	
<b>Strategic Actions</b> 3.1 Establish regulations and guidelines for trash disposal by the village council 3.2 Establish procedures for a community inspections by the village council 3.3 Determine appropriate fines for violation 3.4 Village committee work with LBSP LAS members to incorporate trash disposal regulations, inspections procedures and fines in the village watershed plan 3.5 Establish an inspection team lead by the village mayor and other village chiefs	
<b>Lead:</b> Village Council	<b>Supporting Individuals/Organizations:</b> ASEPA, CRAG, OSA, DMWR, DOC, USDA-NRCS, ASCC Land grant, NOAA-PIRO, ASPA
<b>Objective 4:</b> By January of <b>2013</b> , a village recycling program is established and maintained by the village council.	
<b>Strategic Actions</b> 4.1 Village Mayor coordinates with appropriate agency to set up recycling program in Faga’alu village 4.2 Set up recycling stations and agree on a clear process for maintenance of these stations 4.3 Provide community education and awareness on the purpose and benefits of recycling 4.4 Develop signs for Faga’alu on keeping the village and island clean	
<b>Lead:</b> Village Mayor	<b>Supporting Individuals/Organizations:</b> ASEPA, DMWR, CRAG, NOAA-PIRO, USDA-NRCS, ASCC Land grant, DOC, OSA, ASPA
<b>Threat: Sedimentation</b> The impacts of sedimentation have affected the environment and resources within the village. Most of the impacts have been observed in the stream, coastal and beach areas. Faga’alu village would like to develop protective and management measures to reduce sedimentation such as planting trees within these highly impacted areas, installing seawall or rock-walls and ensure that any development in Faga’alu complies with building and safety goals.	
<b>Objective 5:</b> By <b>2012</b> , Faga’alu village has established and adopted storm water regulations consistent with the American Samoa Water and Erosion Management Plan.	
<b>Strategic Actions</b>	



- 5.1 Village Watershed Committee works with the AS EPA to review and understand storm water and Erosion management plan and to identify appropriate measures at the community level
- 5.2 Village Council establish storm water and erosion control measures in Faga’alu village
- 5.3 Establish appropriate process and fines for addressing violations
- 5.4 Village Mayor coordinates with PNRS to ensure that village regulations are taken into consideration in project review

<b>Lead:</b> Village Mayor	<b>Supporting Individuals/Organizations:</b> ASEPA, DOC, DPW, ASPA, OSA,
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**Objective 6:** By summer **2012**, the Faga’alu village in collaboration with the Am. Samoa Community College Land Grant Program is actively planting trees on identified unstable stream banks and coastal areas.

- Strategic Actions**
- 6.1 Provide community education and awareness on impacts of soil erosion and the need to plant trees to reduce soil erosion
  - 6.2 Establish community volunteer groups to conduct tree planting in collaboration with AS Community College Land Grant Program
  - 6.3 Village Mayor collaborates with appropriate government agencies to identify priority areas that needs to be stabilized through tree planting
  - 6.4 Implement tree planting with pre and post planting survey to determine survival rate

<b>Lead:</b> Village Mayor	<b>Support Individuals/Organizations:</b> ASEPA, DMWR, CRAG, NOAA-PIRO, ASCC Land grant, DOC, Le Tausagi, USDA-NRCS, OSA, DOE
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**Objective 7:** By the end of **2012**, a clear process and methods for stabilization have been identified and agreed between the Faga’alu village and appropriate government agencies to stabilize priority stream banks and coastlines

- Strategic Actions**
- 7.1 Village Mayor coordinates relevant agencies to conduct surveys to determine which areas in Faga’alu faces serious erosion problems and determine the source of erosion
  - 7.2 Appropriate government agencies collaborate with the Village committee to develop and agree on a process, methods and timeline for stabilizing these priority areas
  - 7.3

<b>Lead:</b> Village Mayor	<b>Supporting Individuals/Organizations:</b> ASEPA, DMWR, CRAG, NOAA-PIRO, ASCC Land grant, DOC
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**Threat: Decline Fisheries**  
In the past, villagers were able to conduct seasonal harvesting of the *akule* (big-eye scad) from the reef and catch other reef fish and invertebrates using safe and effective fishing practices. These resources were heavily depended on by the village community for consumption and sharing with families and friends. Today, there is a decline of fish and shellfish in the reefs of Faga’alu due to land use activities,

sedimentation, and poor management practices. The impacts from land activities have also been indicated to affect the condition of the reefs in the village bay. Faga’alu village would like to take a management approach such as establishing a village-based MPA program with improved village enforcement to restore the resources in the village reefs.

**Objective 8:** By **2012**, a Marine Protected Area is established with improved enforcement and management by the village in collaboration with appropriate agencies

**Strategic Actions**

- 8.1 Facilitate coral, fisheries and marine education and outreaches to youth groups
- 8.2 Village Mayor works collaboratively with DMWR in establishing a MPA site within the bay
- 8.3 Facilitate fisheries management, monitoring and enforcement training to village to build capacity and support in management
- 8.4

**Lead:** Village Mayor

**Supporting Individuals/Organizations:**  
DMWR, CRAG, Le Tausagi, AS EPA, NOAA-PIRO, ASCC, DOC, DOE

## IX. STRATEGY EFFECTIVENESS MONITORING PLAN

Strategy Effectiveness Monitoring			
Item	Methods	Who	Details
<b>Objective 1: By 2013, 50% of Faga'alu residents are fully aware of impact of trash and other environmental issues in their village and are working cooperatively to keep the village clean of trash.</b>			
<b>Indicator:</b> increase in environmental awareness, increase support and participation	Perception survey		
<b>Objective: By 2012, Faga'alu Mayor will work with villagers to establish at least 3 community groups responsible for cleaning designated areas in Faga'alu village.</b>			
Indicator % of trash reduction in village	Visual inspection of village		
<b>Objective: By 2012, Faga'alu village has established a village inspection team and implementation process to ensure that community is clean of trash.</b>			
<b>Indicator:</b> increase in compliance to trash regulations	Record Audit		
<b>Objective: By 2013, Faga'alu village recycling program has been established and maintained with the support of island wide recycling program.</b>			
<b>Indicator:</b> Number of recycling station established and maintained	Visual inspection		
<b>Objective: By 2012, the Faga'alu village has established and adopted storm water regulations consistent with the American Samoa Storm Water and Erosion Management Plan.</b>			
<b>Indicator:</b> Storm water and erosion control regulations in Faga'alu village established.	Audit		
<b>Objective: By 2012, the Faga'alu village in collaboration with the American Samoa College Land Grant Program is actively planting trees on identified unstable river banks.</b>			
<b>Indicator:</b> Number of trees survived	Pre and post planting survey		
<b>Objective: By 2012, unstable river banks and coastlines have been identified and a clear process and methods for stabilization has been identified and agreed between Faga'alu village and appropriate government agencies.</b>			
<b>Indicator:</b> Number of areas identified for stabilization	Review of plans		
<b>Objective: By 2012, a MPA is established with improved enforcement and management by the village in collaboration with appropriate agencies.</b>			
<b>Indicator:</b> Number consultations and meetings with community; trainings and a MPA established	MPA process		

## **X. BIOPHYSICAL MONITORING PLAN**

<b>Biophysical Monitoring</b>				
<b>Item</b>	<b>Methods</b>	<b>Priority</b>	<b>Who</b>	<b>Details</b>
<p><b>Target: Coral reefs</b></p> <p>Indicator: % live coral cover, recruitment and disease/bleaching</p>	Photo quadrats	High	DMWR	Take photo using quadrat on tripod, photo analysis using CPE, measure species, size, and abundance
<p><b>Target: Fish and invertebrates</b></p> <p>Indicator: Fish biomass</p> <p>Indicator: Key invertebrate abundance, key mobile invertebrates such as COTS, sea urchins and other potential economic importance species</p>	<ul style="list-style-type: none"> <li>• Underwater visual census along a 50 m transect</li>   <li>• Count along a 50 m belt transect</li> </ul>	High	DMWR	<ul style="list-style-type: none"> <li>• measure species and size</li>   <li>• count size and abundance</li> </ul>
<p><b>Target: Streams</b></p> <p>Indicator: E.coli content</p> <p>Indicator: Turbidity level, sediments and nutrients</p>	<ul style="list-style-type: none"> <li>• EPA approved E. coli count</li> <li>• In situ turbidity measure</li> </ul>	High	AS EPA	<ul style="list-style-type: none"> <li>• Count on selected location</li>   <li>• Use nephelometer</li> </ul>

## **X. REFERENCES**

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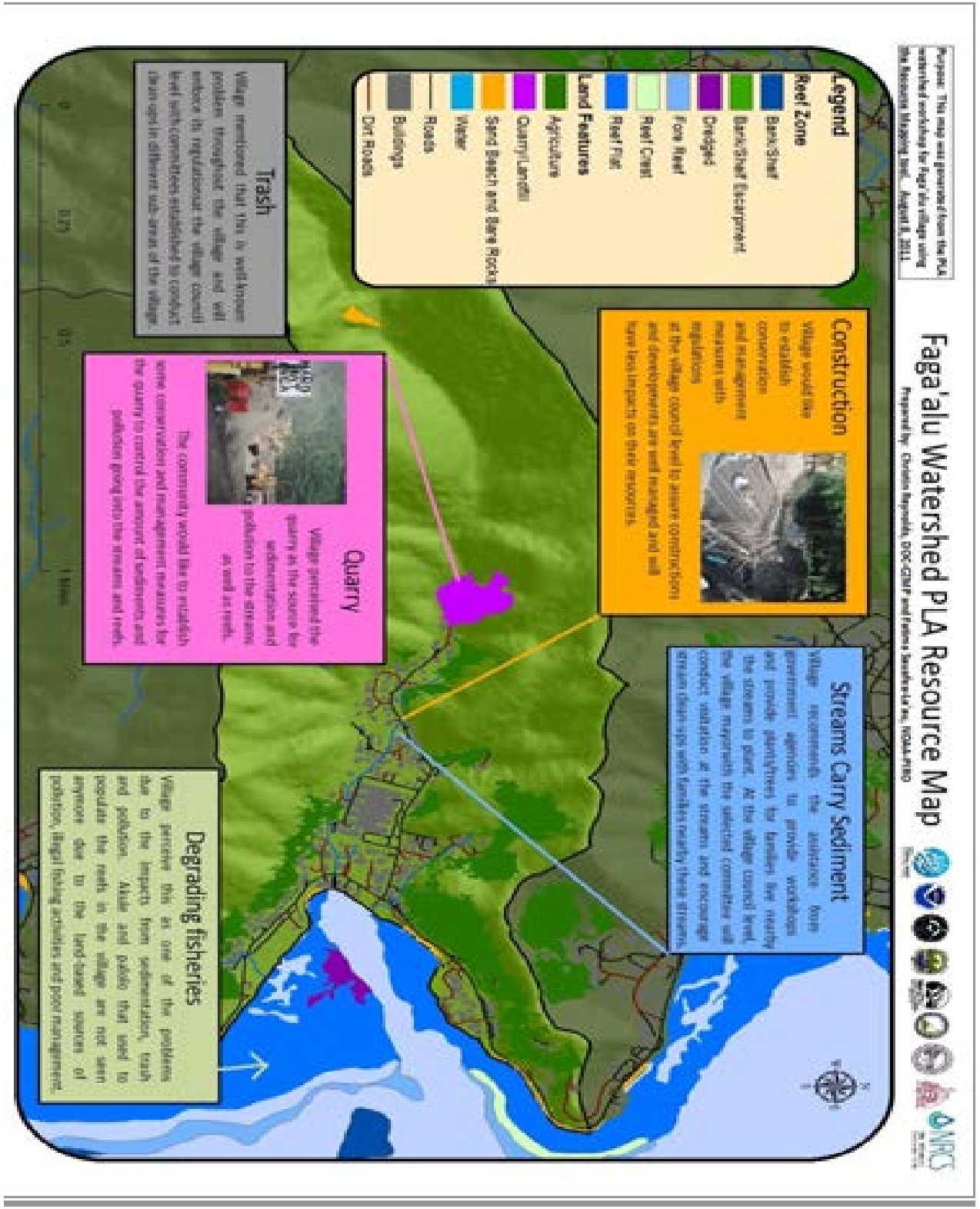


**Appendix A**

**Historical Profile for Faga’alu Watershed  
PLA Community Workshop – June 2011**

<b>Issues</b>	<b>1940-1950</b>	<b>1960-1970</b>	<b>1980-1990</b>	<b>2000-Present</b>
Trash	Landfilled – Matafao dumpster	Observed trash from littering but was not an issue	Trash were observed on beaches, streams, roads and increasingly impacting the environment	Increased (mostly soda cans, plastics bottles) and worsen
Construction and Developments	Less constructions and development in village	Less constructions and development in village	Increased constructions and development	More constructions and development at hospital, quarry, park, roads and streams
Tree cutting	Less tree cutting	Less trees cutting	More trees cut/removed	More trees cut/removed
Illegal Fishing	Less boats and illegal fishing	Less boats and illegal fishing	More fishing boats with motor oil affecting the reefs	More fishing boats with motor oil and increased in illegal fishing activities

**Appendix B**



## Appendix C

### SUPPORTING ENVIRONMENT PARTNERS CONTACT INFORMATION

<b>Agency/Partner</b>	<b>Resources &amp; Support</b>	<b>Contact(s)</b>
<b>ASCC Land Grant – Forestry – UH Sea Grant</b>  <i>Phone #: 699-1394</i>	<ul style="list-style-type: none"> <li>• Offer Forestry outreach program</li> <li>• Coordinate &amp; conduct tree planting of native species as part of reforestation &amp; restoration</li> <li>• Offer training at the Forestry Greenhouse on ways to better maintain plants on propagation &amp; transplanting of tree species</li> <li>• Provide training &amp; information on hydroponics &amp; aquaculture</li> </ul>	Amio Mavaega Marcella Talatau Tony Maugalei Pepe Misa Ephraim Temple Francis Leiato
<b>Coral Reef Advisory Group (CRAG)</b>  <i>Phone #: 633-5155</i>	<ul style="list-style-type: none"> <li>• Outreach</li> <li>• Potential funding for marine resource management</li> <li>• Organized clean ups</li> <li>• Media outlets</li> <li>• Education materials (Climate Change / MPA)</li> <li>• Plastic Bag Reduction campaign materials</li> </ul>	Hideyo Hattori Carolyn Doherty Trevor Kaitu'u
<b>Department of Commerce – Coastal Management Program (DOC- CZMP)</b>  <i>Phone #: 633-5155</i>	<ul style="list-style-type: none"> <li>• Training village on environmental regulations</li> <li>• Community village layout for resource management (GIS based)</li> <li>• Building environmental leadership for youth</li> <li>• Wetland &amp; signage/ walks</li> <li>• Development of educational signage on species</li> <li>• Best practices for building/ development</li> <li>• Establishment of a special management area</li> <li>• Education &amp; Outreach</li> <li>• Recycling station at church               <ul style="list-style-type: none"> <li>○ Glass – Sand, Cans - \$\$</li> </ul> </li> </ul>	Solialofi Tuaumu Daryl Nu'usolia Christin Reynolds
<b>Department of Marine &amp; Wildlife Resources (DMWR)</b>  <i>Phone #: 633-4456</i>	<ul style="list-style-type: none"> <li>• Information Education Division               <ul style="list-style-type: none"> <li>○ Educational Outreach</li> <li>○ Fishing Clinics (youth groups)</li> </ul> </li> <li>• Wildlife Division               <ul style="list-style-type: none"> <li>○ Monitoring Species (lizards)</li> <li>○ Birds &amp; Bats (habitat)</li> <li>○ Mangroves in Wetlands</li> <li>○ Wildlife Habitat Mapping</li> <li>○ Native Habitats Program</li> </ul> </li> <li>• MPA Programs               <ul style="list-style-type: none"> <li>○ Education &amp; Outreach</li> <li>○ Advertisement of regulations</li> <li>○ Opportunity to develop new projects with Government</li> <li>○ Monitoring fish, corals, invertebrates</li> <li>○ Community Workshops</li> <li>○ Clean Ups</li> </ul> </li> <li>• Enforcement</li> </ul>	Maria Vaofanua Lucy Jacob Selaina V. Tuimavave Domingo Ochavillo Peter Eves

	<ul style="list-style-type: none"> <li>○ Education Outreach on rules &amp; regulations that DMWR enforce</li> <li>○ Enforce rules &amp; regs on hunting of Doves &amp; Bats</li> </ul>	
<b>Environment Protection Agency (AS-EPA)</b>  <b>Phone #: 633-2304</b>	<ul style="list-style-type: none"> <li>● Laboratory Water Quality <ul style="list-style-type: none"> <li>○ Sampling &amp; Testing (streams / tap water/ ocean/)</li> </ul> </li> <li>● Enforcement &amp; Compliance <ul style="list-style-type: none"> <li>○ Piggeries</li> <li>○ Solid Waste</li> <li>○ Oil spill</li> <li>○ Pesticides</li> <li>○ Plastic bags</li> <li>○ Vehicle importation</li> </ul> </li> <li>● Outreach &amp; Education <ul style="list-style-type: none"> <li>○ Science Fair projects assistance</li> <li>○ Research</li> </ul> </li> </ul>	Christianera Tuitele Tumau Lokeni
<b>Fagatele Bay National Marine Sanctuary (FBNMS)</b>  <b>Phone #: 633-5155</b>	<ul style="list-style-type: none"> <li>● Outreach &amp; Education</li> </ul>	Veronika Mortenson
<b>National Park Service (NPS)</b>  <b>Phone #: 633-7082</b>	<ul style="list-style-type: none"> <li>● Outreach &amp; Education</li> <li>● Removal of invasive species in National Park</li> <li>● Marine monitoring within National Park</li> </ul>	Michael Larson Dr. Tim Clark
<b>NOAA Fisheries-PIRO – Field Office</b>  <b>Phone #: 633-5326</b>	<ul style="list-style-type: none"> <li>● Provide coordination with &amp; assistance to local management community in coral reef management through the national coral reef conservation program (CRCP)</li> <li>● Coral Reef Local Action Strategies development &amp; project planning</li> <li>● Provide assistance &amp; support to MPA programs</li> <li>● Coordinate planning &amp; support with resource partners &amp; villages for watershed management projects</li> <li>● Coordinate planning &amp; support for Reef Resilience &amp; Community Resilience projects</li> <li>● Socioeconomic assessments of coastal areas</li> <li>● Coordinate with other NOAA partners eg. CRED &amp; local partners on monitoring &amp; reef assessments</li> <li>● Review projects that may have adverse effects on Essential Fish Habitat (EFH)</li> <li>● Outreach &amp; Education</li> <li>● Seek &amp; obtain available funds &amp; resources to support management efforts through Coral Program &amp; NOAA</li> </ul>	Fatima Sauafea-Le'au

<p><b>USDA Natural Resources Conservation Service – Pago Pago Office</b></p> <p><b>Phone #: 633-1031</b> <b>Ext. 122</b></p>	<ul style="list-style-type: none"> <li>• Provide technical assistance to farmers to improve productivity of their farms as well as reduce soil erosion</li> <li>• Provide cost-sharing assistance for eligible farmers to improve productivity and reduce soli erosion</li> <li>• Provide technical assistance for stream bank stabilization projects as well as riparian vegetation practices</li> <li>• Offers educational outreach</li> </ul>	<p>Nicholas Saumweber</p>
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