

CNMI Coral Reef Management



*Presented on behalf of the CNMI Office of the Governor,
U.S. Coral Reef Task Force Meeting
Palau, November 2005*

Outline

- **CNMI Coral Reef Management Program**
- **Ongoing Projects**
 - **Talakhaya Restoration, Rota**
 - **In-Shore Creel Survey**
 - **Education and Outreach**
- **Laulau Bay Watershed Project Overview**

CNMI's CRI Program

- **Office of the Governor – POC**
- **Tri-Agency**
 - **CRM – Coastal Planning & Management**
 - **DEQ – Water Quality/Landbased Pollution**
 - **DFW – Fisheries Management**
- **Coordinate and Implement LAS projects**

Talakhaya Revegetation, Rota

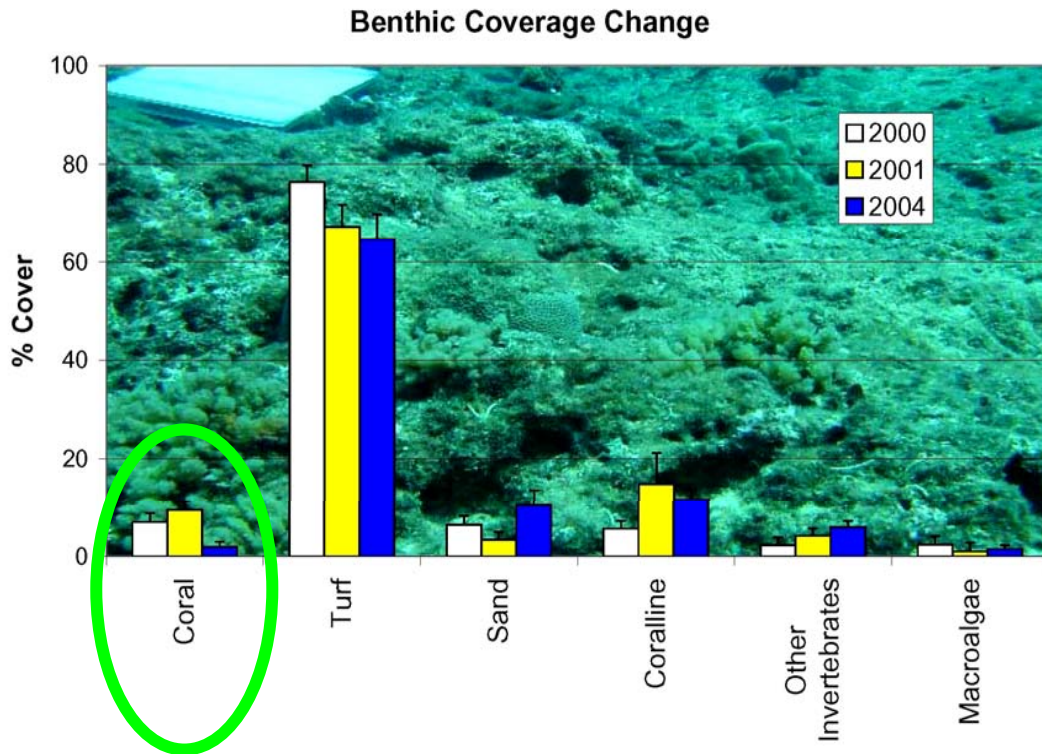


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1 Kilometers

Talakhaya Revegetation, Rota



- **3 year project**
- **Identified focus area in LAS**
- **Revegetation**
- **Outreach**
- **Local Partners**
 - Boy scouts
 - Schools
 - Agencies

(Houk, 2005)

In-Shore Creel Surveys

- **Staff training**
- **5 months of data collection**
- **Data analysis with newly developed programs**



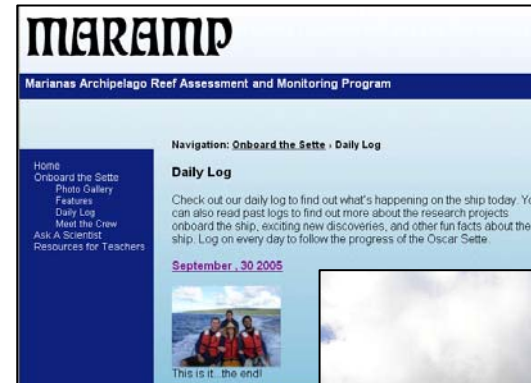
Future Plans

A scenic view of a beach at dusk. The sky is a deep blue with scattered white clouds. The ocean is calm, and several motorboats are visible. In the foreground, a person is standing in the shallow water near a small boat. Another person is on a larger boat in the middle ground. The overall atmosphere is peaceful and serene.

- **Refine Creel Program to include boat based nearshore fishing activities.**
- **Expand program to include other areas around Saipan, Tinian, and Rota.**

Education and Outreach

- **Marianas Archipelago Reef Assessment and Monitoring Program (MARAMP) website**
- **Know Your Watershed public awareness campaign**



Protecting Coral Reefs through Watershed Restoration and Management: Laulau Bay, Saipan

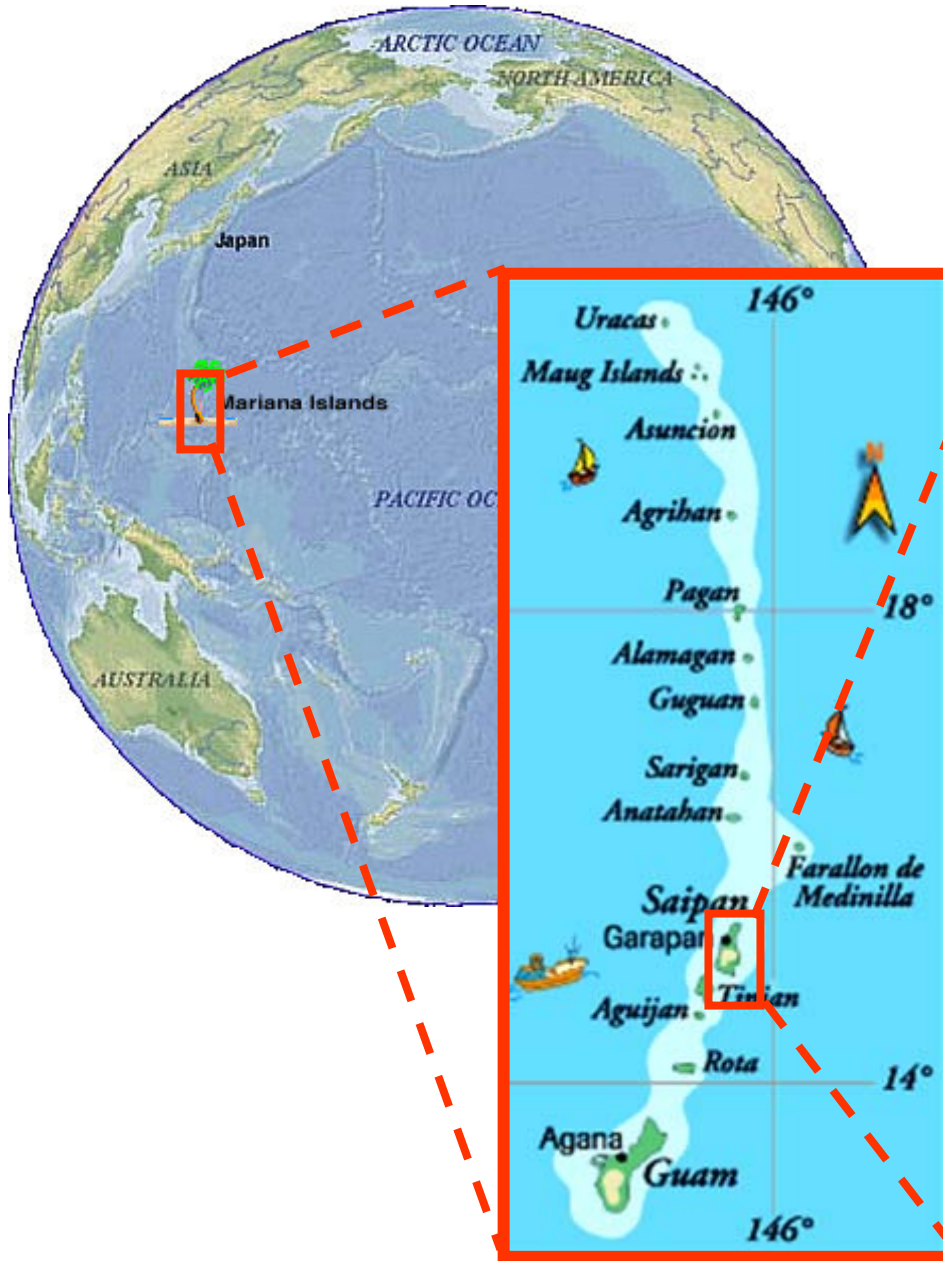




Project Approach

- **Priority Action in LAS**
- **Links Science & Management**
- **Partnerships**
 - **CNMI & Federal Agencies**
 - **Volunteer Groups**
 - **Area Residents & Landowners**
- **Public Outreach**
- **Model for CNMI**

Project Location

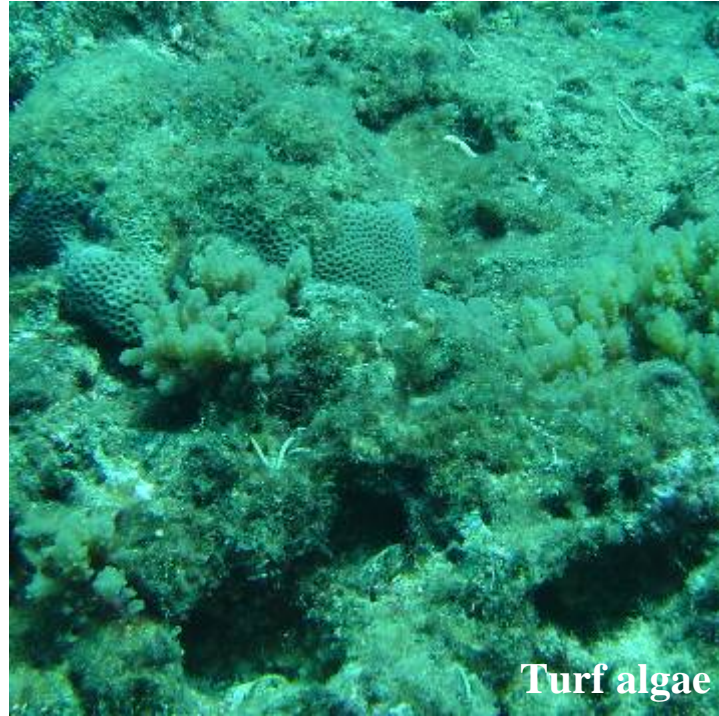




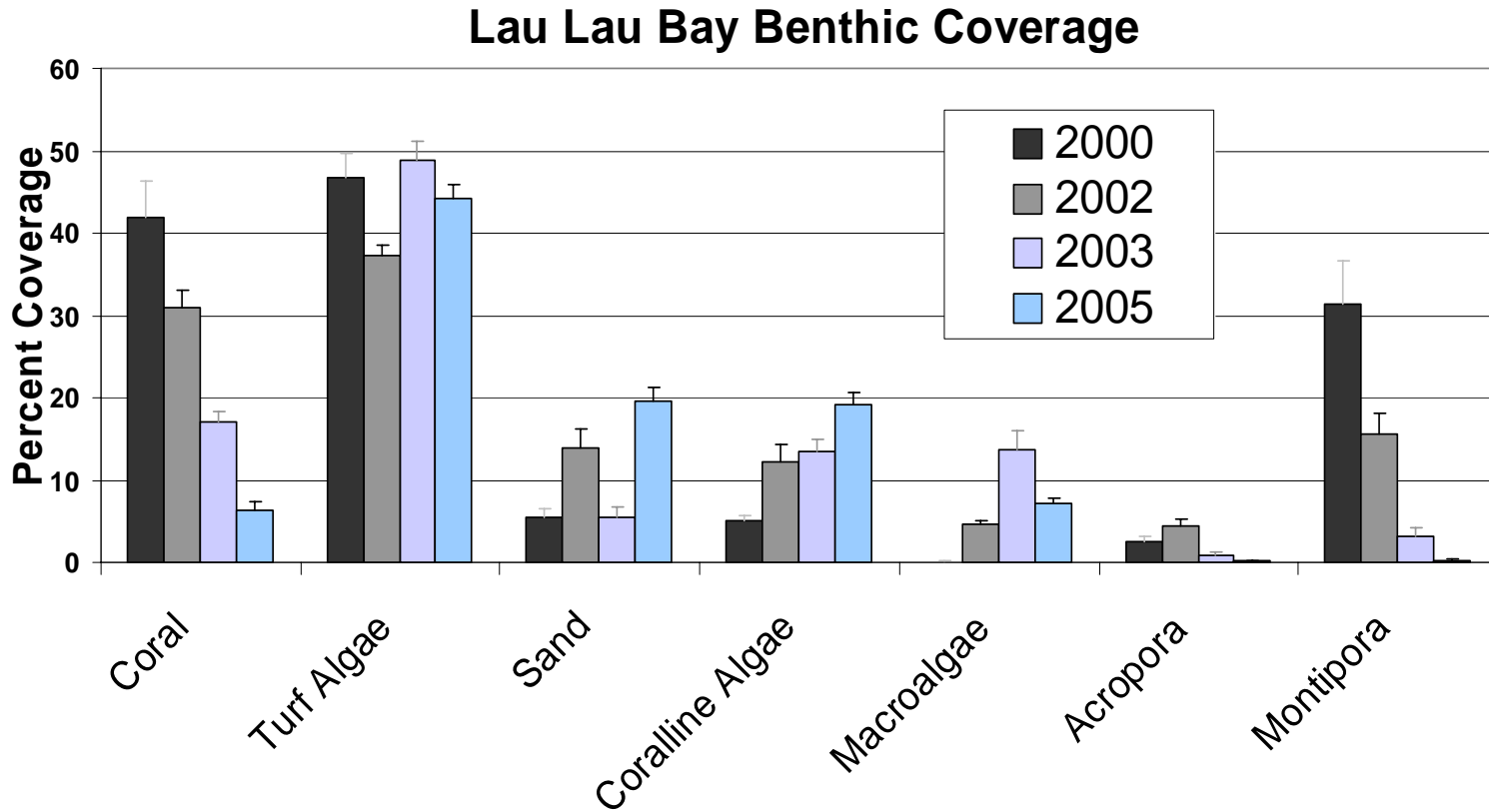
Laulau Bay Values

- **Coral reef & marine ecosystem**
- **Turtle nesting habitat**
- **Dive site (up to 200 divers per day)**
- **Local recreation site**
- **Historic sites**

Threats to Laulau Bay



Trends in Laulau Reef Health



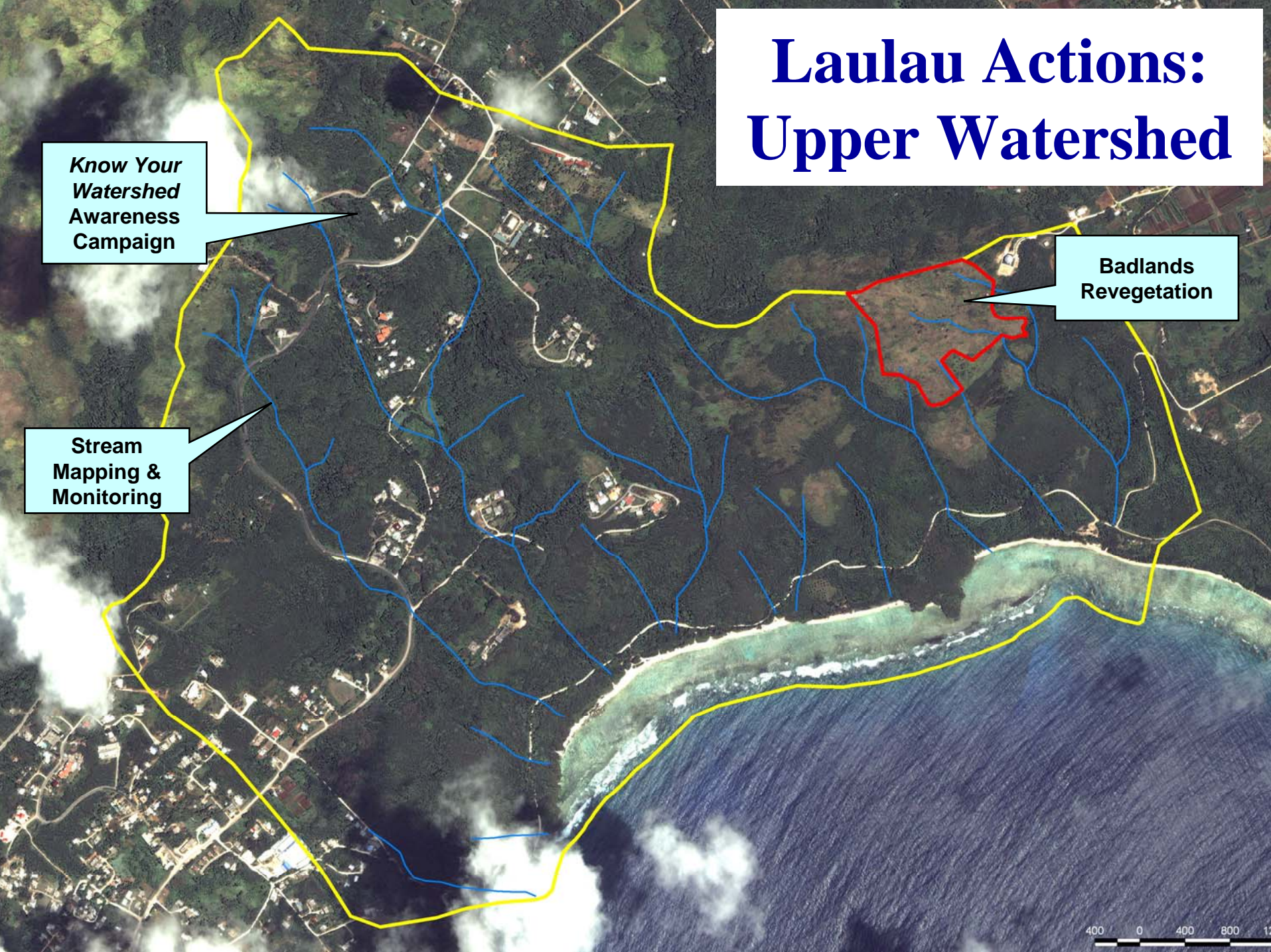
(Houk, 2005)

Laulau Actions: Upper Watershed

Know Your Watershed Awareness Campaign

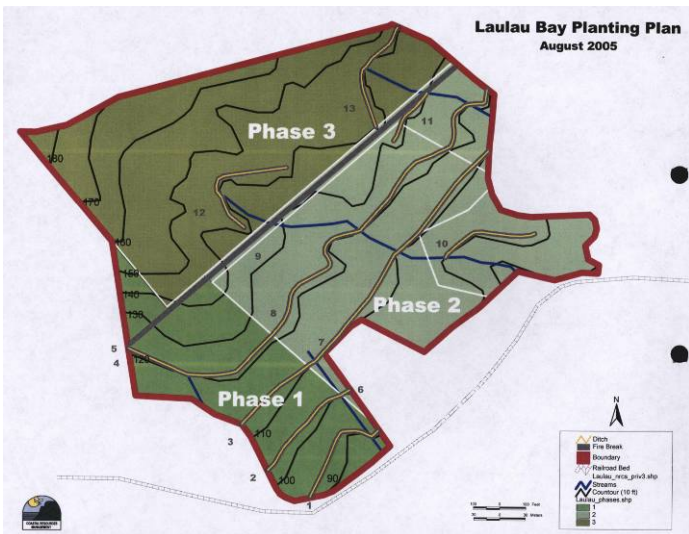
Stream Mapping & Monitoring

Badlands Revegetation

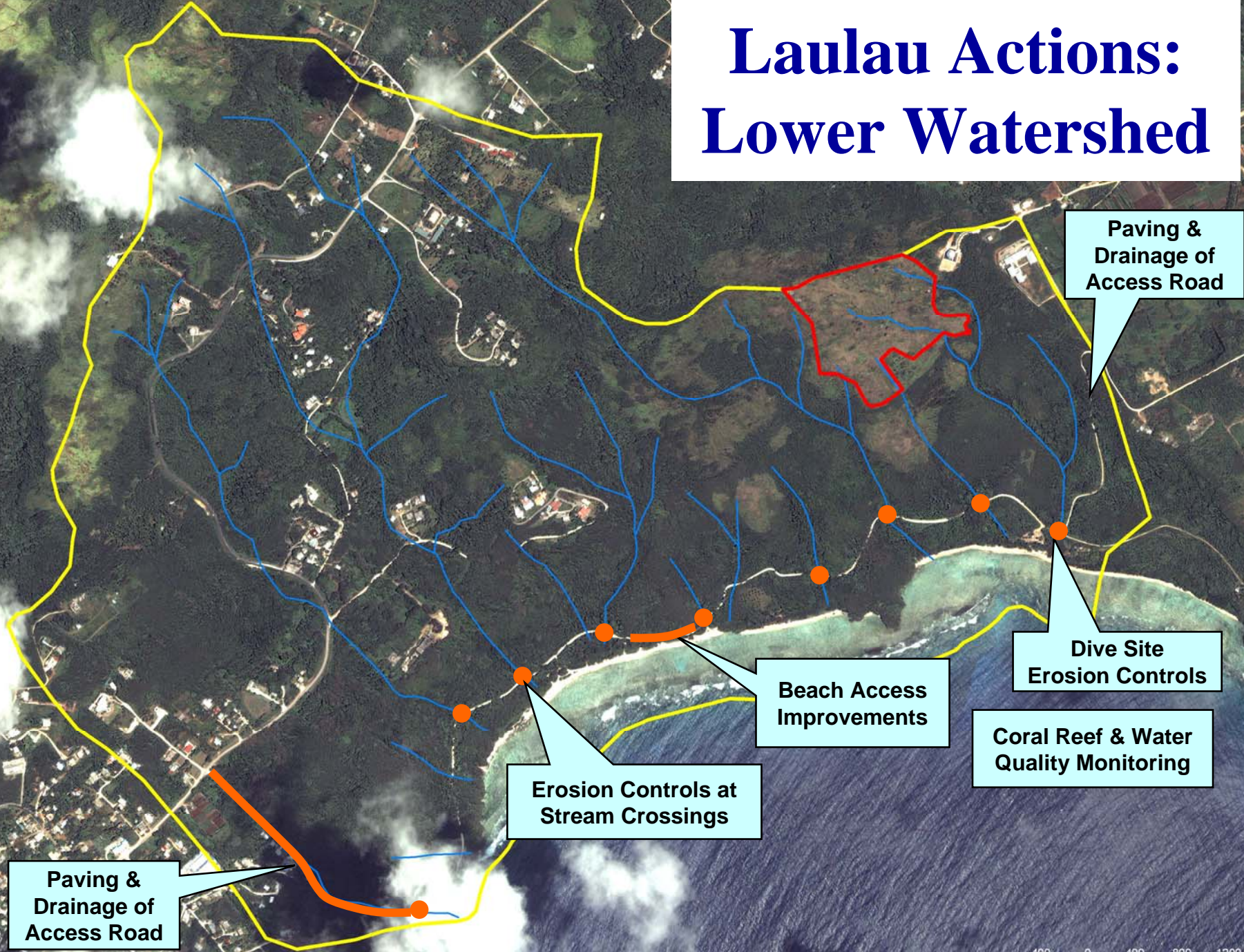


Upper Watershed Revegetation

- Planting plan
- Nursery expansion
- Private donations
- Landowner agreement
- Community volunteers



Laulau Actions: Lower Watershed



Paving & Drainage of Access Road

Dive Site Erosion Controls

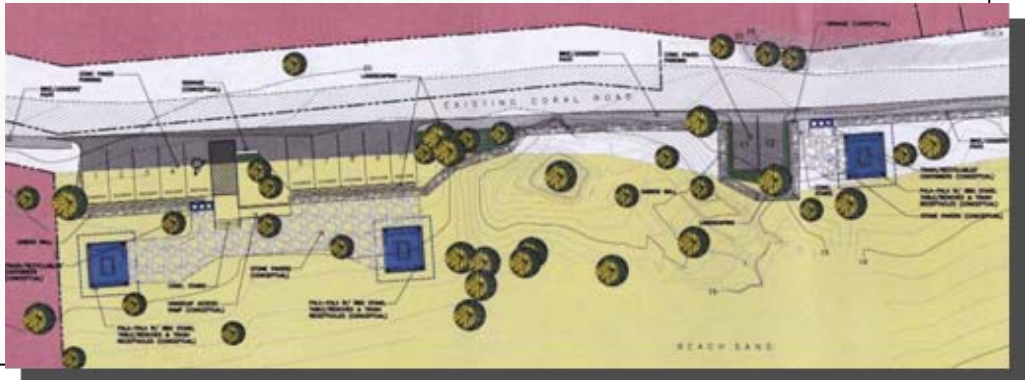
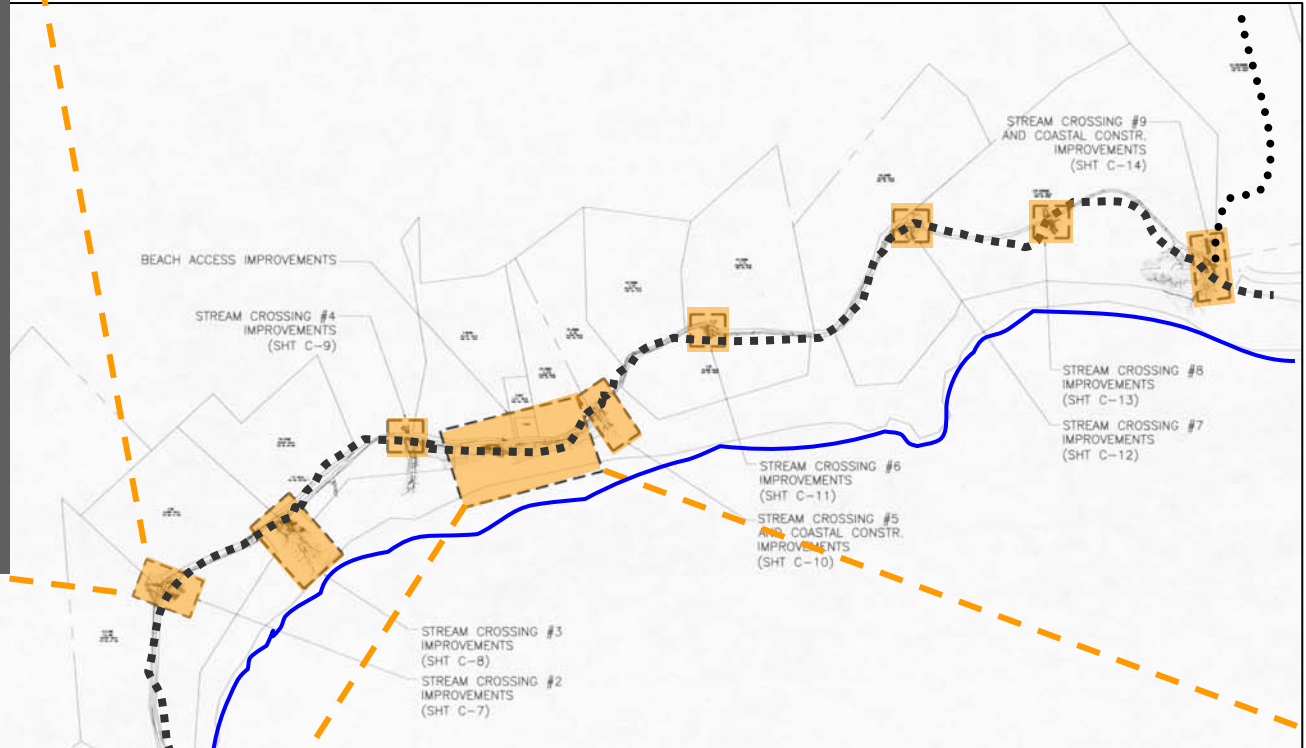
Beach Access Improvements

Coral Reef & Water Quality Monitoring

Erosion Controls at Stream Crossings

Paving & Drainage of Access Road

Erosion Controls & Beach Access Improvements

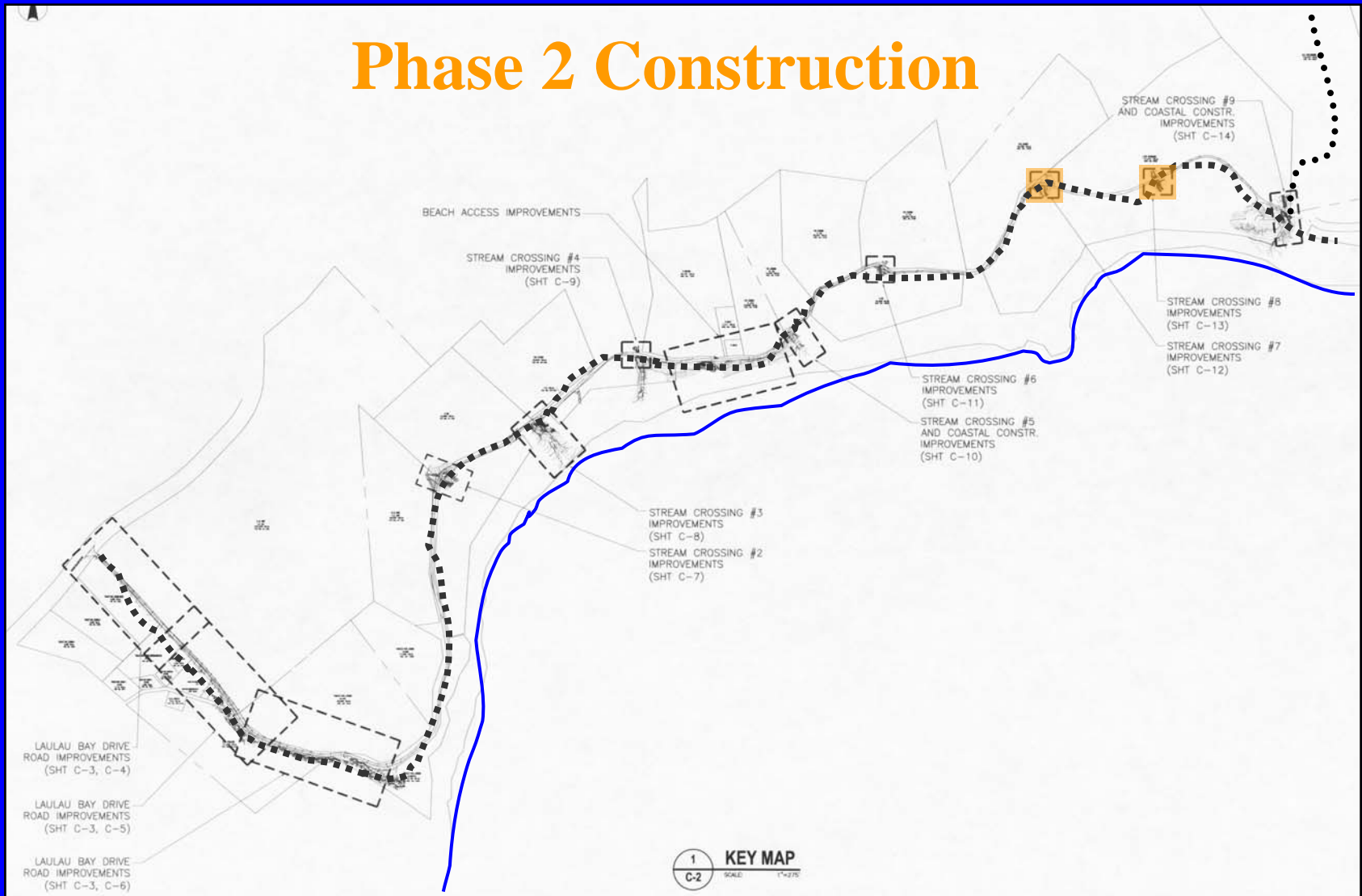


Project Budget by Phase

Phase	Timing	Cost	Status
1. Design, EA, revegetation	2004-2006	\$105,000	Funded, Underway
2. Erosion controls, revegetation	2006	\$75,000	Funded

Erosion Controls & Beach Access Improvements

Phase 2 Construction

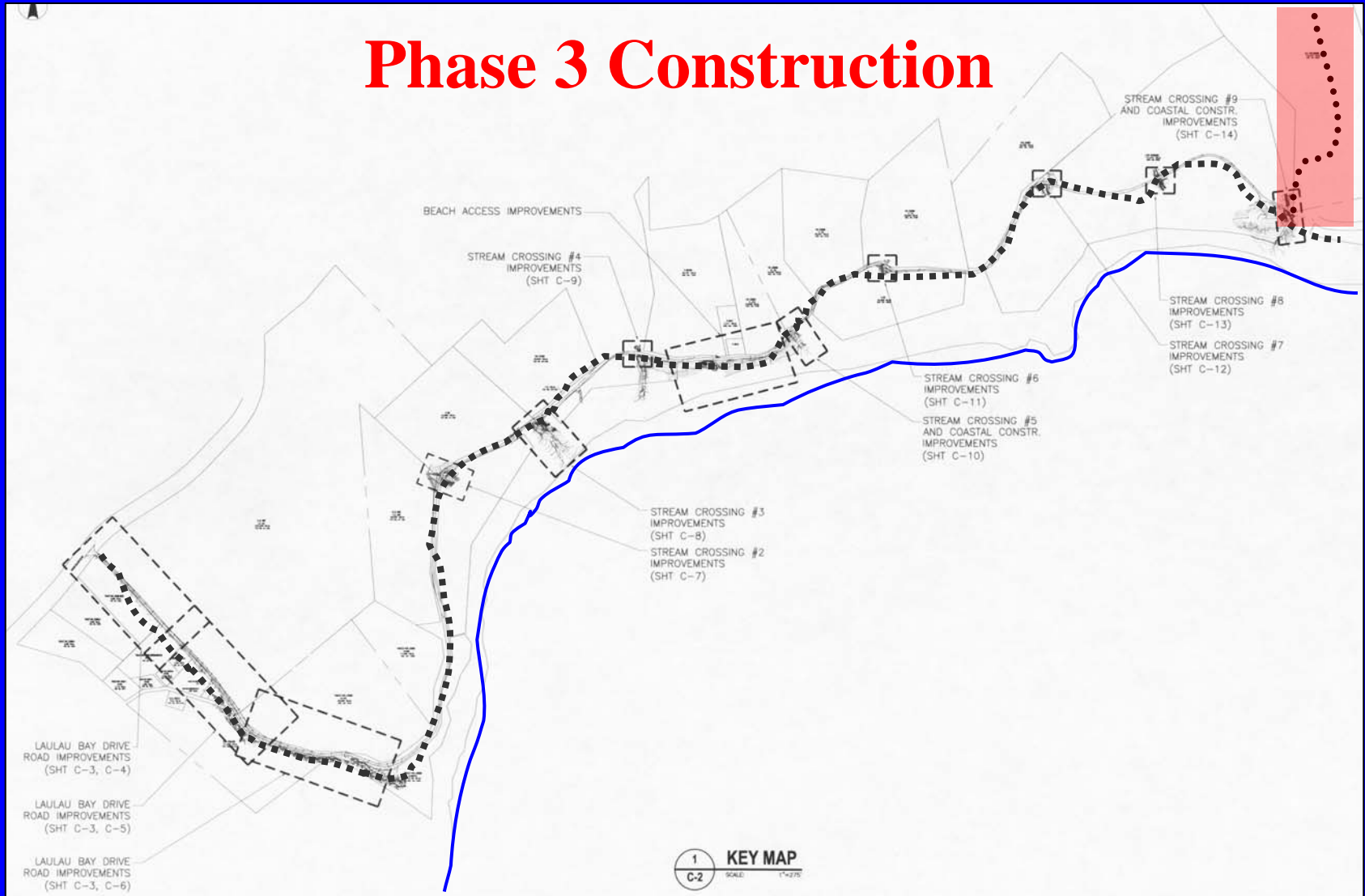


Project Budget by Phase

Phase	Timing	Cost	Status
1. Design, EA revegetation	2004-2006	\$105,000	Funded, Underway
2. Erosion controls, revegetation	2006	\$75,000	Funded
3. Pave dirt road, erosion controls	2006	\$340,000	Unfunded

Erosion Controls & Beach Access Improvements

Phase 3 Construction

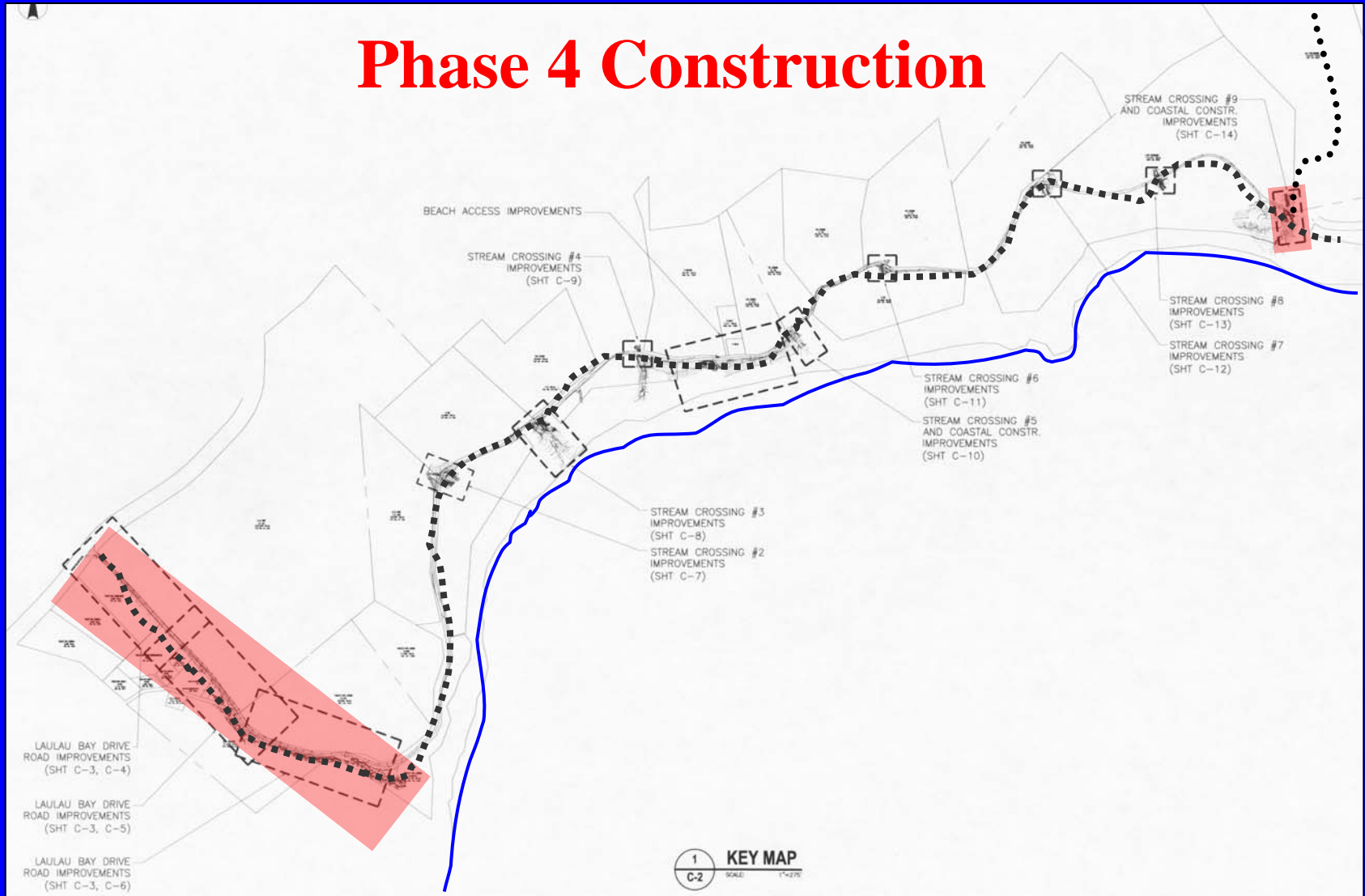


Project Budget by Phase

Phase	Timing	Cost	Status
1. Design, EA, revegetation	2004-2006	\$105,000	Funded, Underway
2. Erosion controls	2006	\$75,000	Funded
3. Pave dirt road, erosion controls	2006	\$340,000	Unfunded
4. Pave dirt road, erosion controls	2006	\$374,000	Unfunded

Erosion Controls & Beach Access Improvements

Phase 4 Construction

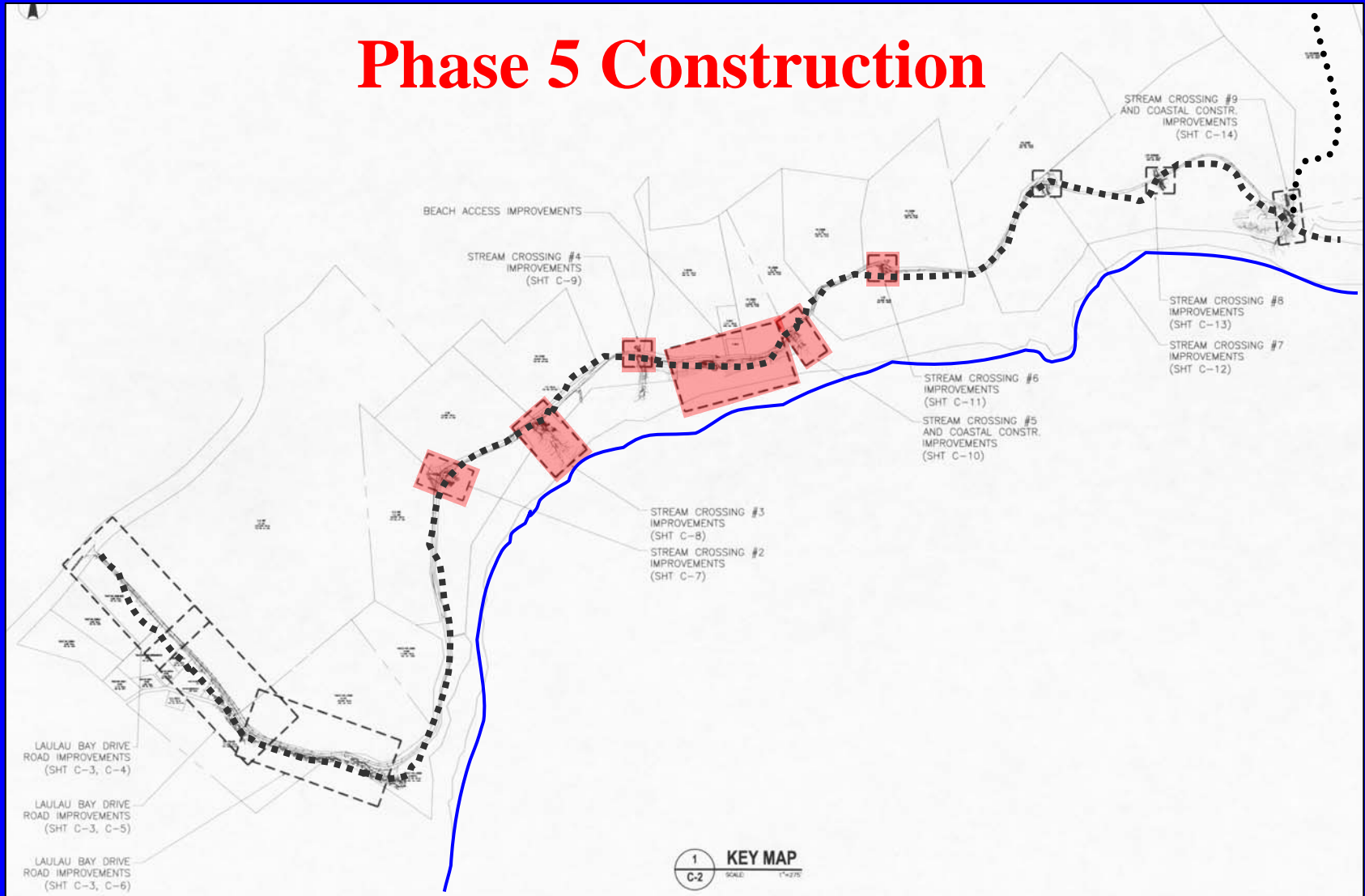


Project Budget by Phase

Phase	Timing	Cost	Status
1. Design, EA, revegetation	2004-2006	\$105,000	Funded, Underway
2. Erosion controls, revegetation	2006	\$75,000	Funded
3. Pave dirt road, erosion controls	2006	\$340,000	Unfunded
4. Pave dirt road, erosion controls	2006	\$374,000	Unfunded
5. Erosion controls, beach access, revegetation	2007	\$328,000	Unfunded

Stormwater Controls & Beach Access Improvements

Phase 5 Construction



Phases 1-5 Recap

(\$1 Million remaining unfunded)





Project Benefits

- **Improved coral reef integrity and resilience**
- **Enhance tourism and economy**
- **Protection of sea turtle habitat**
- **Improved beach access and recreational amenities**
- **Effective watershed management**
- **Community stewardship**



Mesulang!

Laulau Bay Dive Site, 2001