



Watershed Working Group (WWG)

October 17, 2023 Meeting



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Watershed Working Group

Watershed Working Group (WWG) is a partnership between local and federal government agencies, environmental non-profits and other concerned groups which gathers to provide technical expertise and project support on watershed initiatives in the CNMI. The group typically meets every two months to discuss ongoing projects and request review or recommendations on specific issues.

Please check the [CRM calendar for the next WWG meeting](#). Please contact our Watershed Coordinator, Zachary Williams (zwilliams@dcrm.gov.mp) for any further information or to be added to the email list.

MEETING MATERIALS AND RESOURCES

Keep up to date with presentations, materials and other group updates! Open "Notes & Updates" for further details and links relevant to CNMI's watersheds.

August 3, 2021

- [August 3, 2021. Notes & Updates](#)
- **Presentations:** Zak Williams (DCRM Watershed Coordinator): Watershed Updates; Mary Fem Urena (DCRM Coastal Planner): Better Buildings Update;

<https://dcrm.gov.mp/our-programs/water-quality-and-watershed-management/watershed-working-group/>



The Watershed Working Group is a network of partners involved in watersheds planning, project implementation, research, and education.

Includes members from local and federal government agencies, NGOs, community groups, and other interested parties.

Typically meets quarterly to discuss issues relating to watersheds, in order to pool knowledge and networks towards better management and collaboration.



Meeting Agenda

Zak Williams (DCRM)

- Watershed Updates

Robbie Green & Grant Tyler (PCRPP)

- Coastal Habitat Restoration Project Priority Setting: Achugao & Laolao Bay

Roundtable Discussion

- Member updates, concerns, opportunities, etc.

Closing



Mangrove Nursery – Survived!



Mangrove Nursery – Survived!



AWMP & SFMP – PDAC Thursday



Saipan Fire Management Plan — 2021



Saipan, CNMI



New Raingardens – Tanapag Middle School

Second raingarden installed on campus in August with the help of DCRM's Summer Interns.

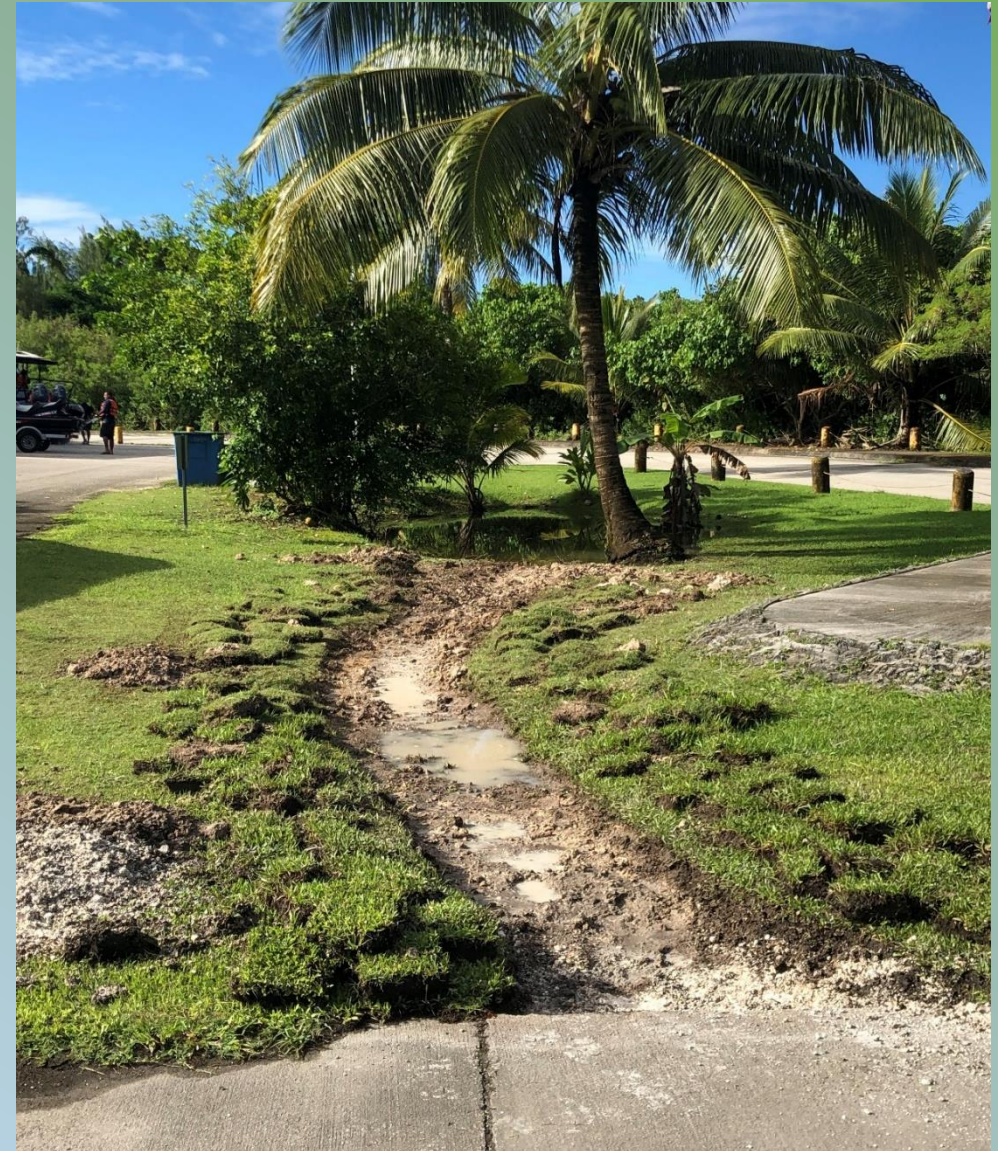
➤ Native and medicinal plants.



New Raingardens – American Memorial Park

Work ongoing to retrofit bonding basin in front of DPS Boating Safety Building.

- Trench will be lined with landscape plastic and sodded in order to move water off of adjacent sidewalk.



Ocean Guardian Schools – Tinian

Tinian Elementary School and Tinian High School awarded \$8,000 for developing environmental curriculum via the NOAA Ocean Guardian Program.

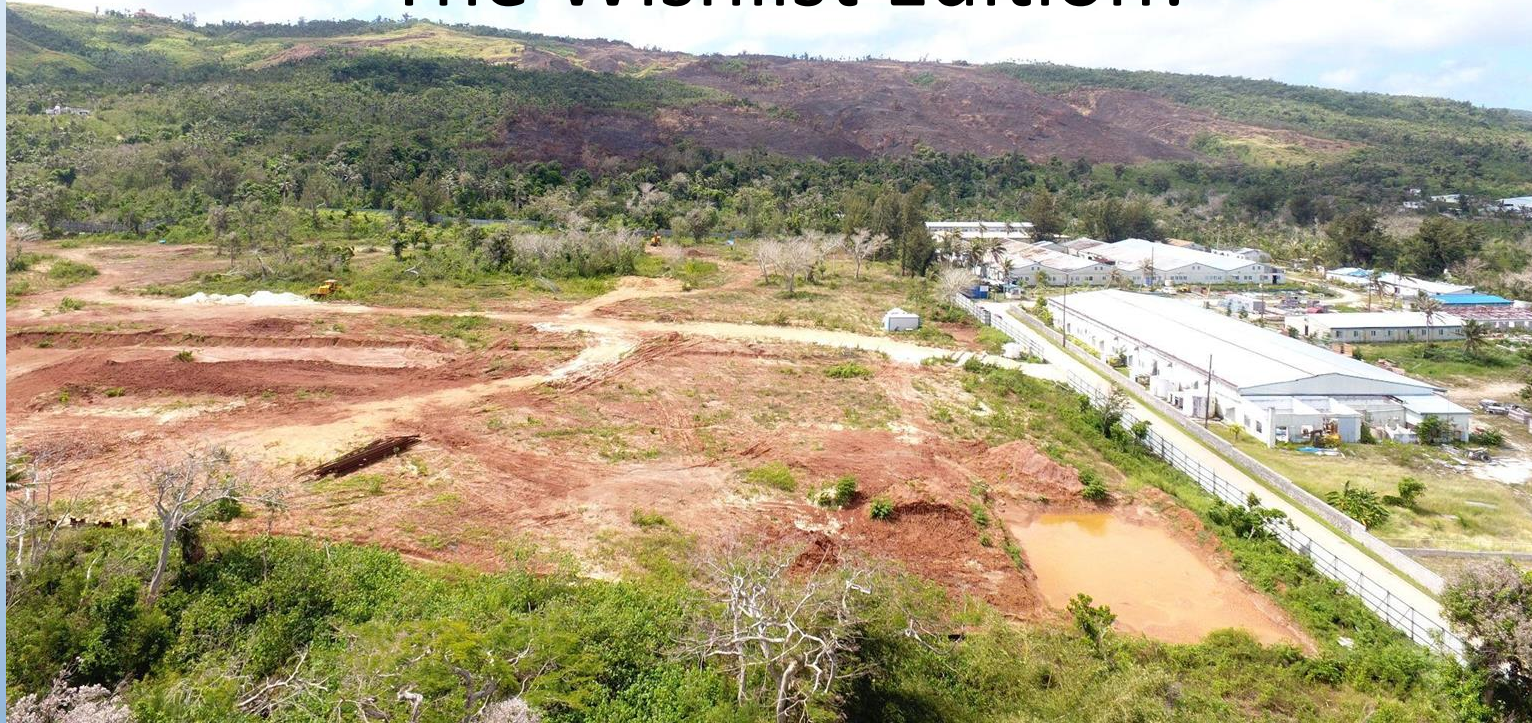
➤ Tinian Elementary School interested in naturescaping on their campus and improving stormwater infrastructure / rainwater collection.

→ They need native trees!





NOAA Priority Watershed Restoration: The Wishlist Edition!



PCRP

CNMI Watershed Working Group Quarterly Meeting
October 17, 2023 - 9:00 AM

November 2021



LaoLao Bay Watershed

DRAFT Action Plan

Prepared for:
BECQ Division of Coastal Resource Management

Prepared by:
Horsley Witten Group, Inc.,
KOA Consulting, Inc., and
Sea Change Consulting

ACHUGAO WATERSHED MANAGEMENT PLAN 2020-2030



February 2023 Final

PREPARED FOR:
CNMI Bureau of Environmental and Coastal Quality,
Division of Coastal Resource Management and the
NOAA Coral Reef Conservation Program

PREPARED BY:
Horsley Witten Group, Inc.
KOA Consulting, Inc.
Sea Change Consulting

2030
Achugao

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NMFS Watershed Restoration Project Goals

Project Timeline

- 3 years for completion (some flexibility)

Action Plan

1. Stakeholder Engagement - Site Visits - Project Selection
2. Development of Conceptual Designs
3. Advanced Design & Permitting
4. Construction Plans & Project Implementation
5. Community Outreach Plan Development & Implementation



NMFS Watershed Restoration Project Goals

Deliverables

- Select top 3-4 potential projects from Achugao and LaoLao WMPs and develop to 50% design
- Select 1-2 of these project designs for further development, permitting, and implementation






























Achugao WMP Priorities

- Overlap with agency projects?
- Opportunities to collaborate? (i.e. Tanapag Beach Park)

APPENDIX B: KEY PROJECT DESCRIPTIONS

Table B1. Summary of key projects from Achugao WMP

| Site | Project Description | Planning Level \$ | Goals |
|---|---|---------------------|---|
| As Agatan Stream & Wetland Restoration & Infrastructure Protection (AS-132) | Eliminate flows on Middle Rd. by redirecting through culvert under access drive; recreating a floodplain wetland to handle larger storms; providing treatment for runoff from impervious cover using green stormwater infrastructure; and improving habitat through invasive species removal and restoration of native riparian vegetation. | \$250,000-\$350,000 |    |
| Tanapag Beach Park (AS-137) | Community-led resiliency design to design living shoreline, stormwater management system, recreational usage, and educational moments for park users. | \$170,000-\$250,000 |    |
| Improving Stormwater Infrastructure at Tanapag Middle School (AS-153) | Reduce runoff volume at Tanapag Middle School by expanding capacity of onsite practices, installing additional practices, and fixing runoff bypass issues on Middle Rd. that are contributing to school flooding. Consider developing master drainage plans to meet coastal resiliency objectives for both schools in the watershed. | \$75,000-\$100,000 |    |
| Imperial Casha Site Stabilization (AS-502) | Address erosion and sedimentation from >10 acre clearing at stalled construction site. Involves replanting vegetated riparian buffers, hydroseeding exposed soils, and excavating existing sediment basins to restore capacity. | \$25-\$50,000 |   |
| Lower Base Pollution Prevention (AS-128 & AS-168) | Remove accumulated sediment in concrete swales and drainage structures along road; install sediment forebays and swales in the road right-of-way; identify structural and non-structural practices and prepare stormwater pollution prevention plans for each property to reduce off site contributions of sediment and other pollutants. | \$50,000-\$150,000 |    |
| San Roque Green Streets (AN-300 & 301) | Utilize road median and right-of-way to incorporate street trees, stormwater management, and pedestrian/bike safety. There is also potential for additional stream and wetland restoration seaward of Middle Rd. | \$400,000-\$500,000 |   |
| Kensington Hotel Sustainable Green Infrastructure (AN-501 & 601) | Improve pollutant removal performance and aesthetics of hotel's stormwater infrastructure with wetland vegetation in the central pond system and parking lot improvements. | \$250,000-\$350,000 |   |
| Aqua Resort Overflow Parking (AN-307) | Implement sustainable hotel stormwater practices with drainage improvements at unpaved overflow parking using permeable pavers, swales, and bioretention facility. | \$25,000-\$100,000 |   |
| Upland Reforestation | Reforestation of areas at the upper ridges of Achugao, converting fire-vulnerable grasslands back into native forest. | \$ 30,000 |  |
| Wildfire Outreach & Prevention | Island-wide environmental awareness campaign targeting one source of land-based sources of pollution (LBSP): wildfire and resulting erosion and sedimentation. | \$ 30,000 |   |
| Watershed Warriors Program | Environmental education programming targeting 4 th grade students at Gregorio T. Camacho Elementary School in San Roque village. | \$ 15,000 |   |
| Mangrove Nursery | Establish <i>in situ</i> mangrove nursery to propagate existing and extirpated mangrove species for reforestation efforts along Saipan Lagoon. | \$ 12,000 |   |



Goal #1 Reduce Urban Pollutant Loads



Goal #2 Improve Coastal Resiliency



Goal #3. Improve Habitat



Goal #4. Engage Stakeholder Community

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San Roque Green Streets

**As Agatan Stream / Wetland
Restoration**

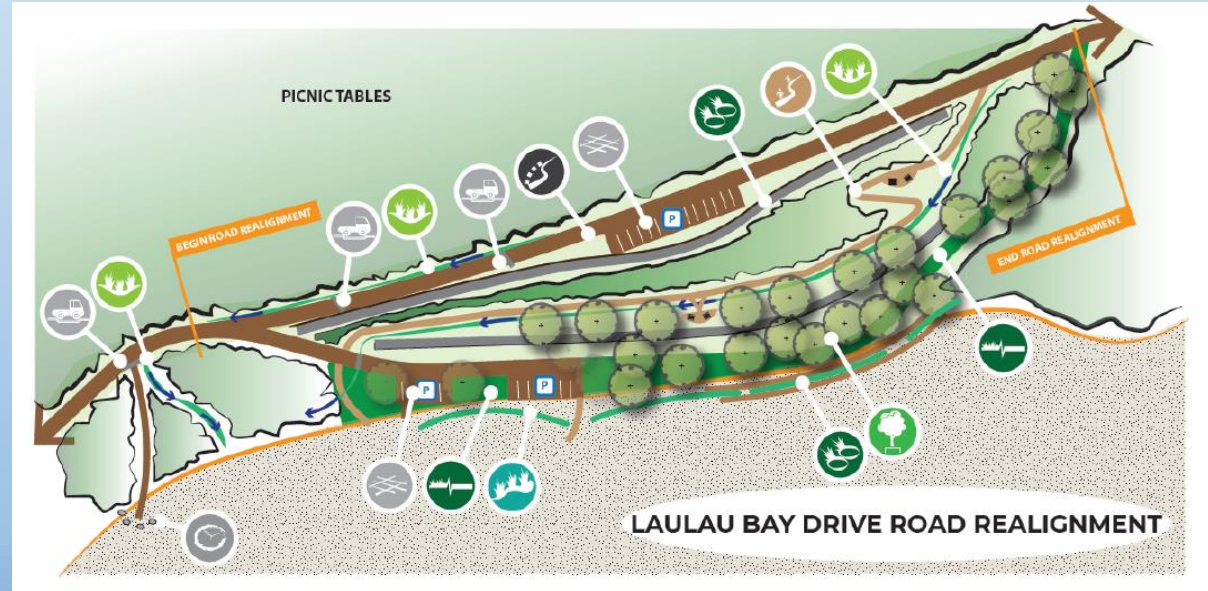


Imperial Casha Site

LaoLao Bay Action Plan

4 Specific Actions

1. LauLau Bay Drive and Shoreline Resiliency Project
2. GapGap Road Stabilization Project
3. Dive Site Green Infrastructure Project






Dive Site Green Infrastructure Project



Watershed Priorities Survey

PCRP Saipan Watershed Restoration Priorities

Find address or place



Filter list by map

| | | |
|--|---|---|
| Aqua Resort Overflow Parking | 0 | ♥ |
| Dive Site Green Infrastructure Project | 1 | ♥ |
| Drainage Improvements by Kagaman D... | 0 | ♥ |
| GapGap Road Stabilization Project | 0 | ♥ |
| Imperial Casha Site Stabilization | 0 | ♥ |
| Improving Stormwater Infrastructure at ... | 0 | ♥ |
| Kensington Hotel Sustainable Green Inf... | 0 | ♥ |
| LauLau Bay Drive and Shoreline Resilie... | 0 | ♥ |
| Lower Base Pollution Prevention | 0 | ♥ |
| Magazine Drive Stabilization | 0 | ♥ |
| Middle Rd Ponding Reduction | 0 | ♥ |
| Mt. Susu Recreational Plan | 1 | ♥ |
| San Roque Elementary School | 0 | ♥ |

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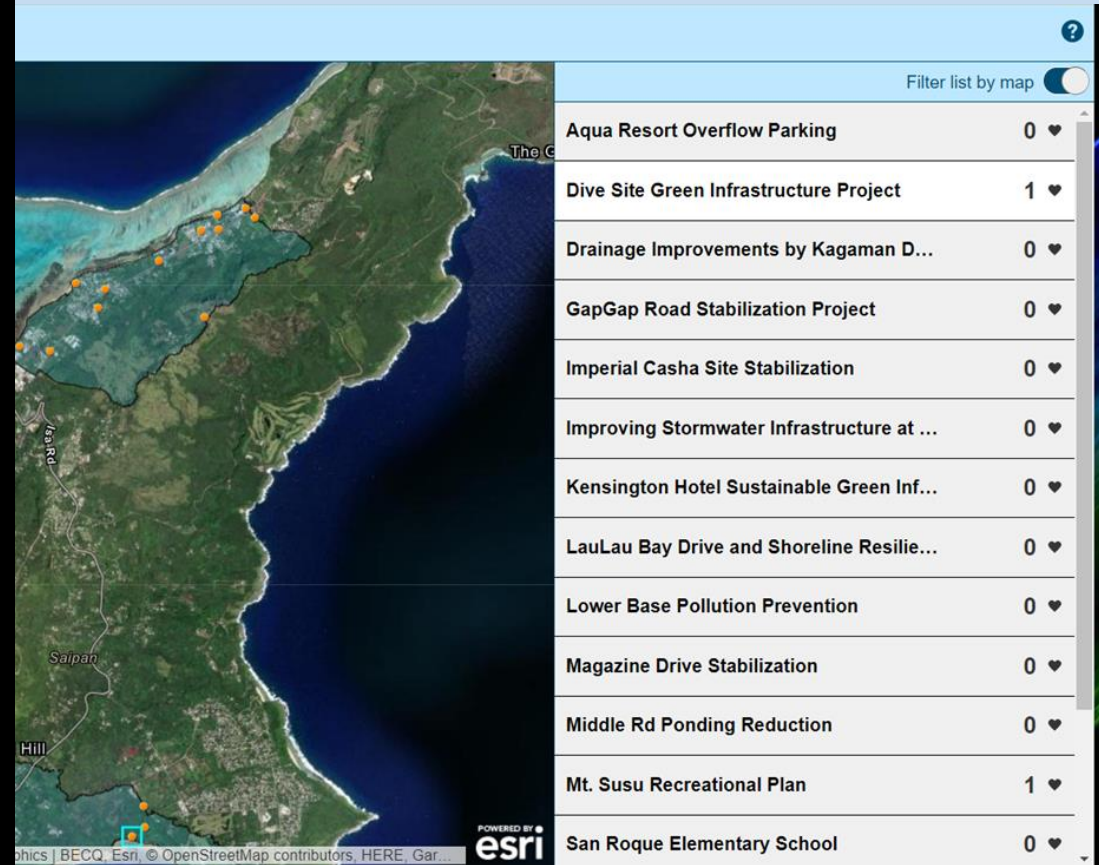
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Watershed Priorities Survey



SCAN ME



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Survey Steps (1)

Review all listed watershed projects.

PCRP Saipan Watershed Restoration Priorities

Find address or place

+

Home

-

Location

The Grotto

Salipan International Airport

Earthstar Geographics | BECQ, Esri, © OpenStreetMap contributors, HERE, Gar

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Filter list by map

| | |
|--|---|
| Aqua Resort Overflow Parking | 0 |
| Bentana Drive and Driveway Disconnec... | 0 |
| Dive Site Green Infrastructure Project | 1 |
| Drainage Improvements by Kagman De... | 0 |
| GapGap Road Stabilization Project | 0 |
| Imperial Casha Site Stabilization | 0 |
| Improving Stormwater Infrastructure at ... | 0 |
| Kensington Hotel Sustainable Green Inf... | 0 |
| LauLau Bay Drive and Driveway Discon... | 0 |
| LauLau Bay Drive and Shoreline Resilie... | 0 |
| Lower Base Pollution Prevention | 0 |
| Magazine Drive Stabilization | 0 |
| Middle Rd Ponding Reduction | 0 |

Welcome to the Achugao and Laolao Bay Watershed Priorities Poll!

Please review all listed projects and vote for the top 4 watershed projects in your community that you believe should be a priority for implementation.

Search for a location or click an item in the list to get started.

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Survey Steps (2)

Select location to see project overview.

PCRP Saipan Watershed Restoration Priorities

Find address or place

+

Home

-

Location

The Grotto

Achugao

Saipan


Capitol Hill

Laokeo Bay

Saipan International Airport

LauLau Bay Drive and Shoreline Resiliency Project

Realignment of road, native vegetation plantings, elevated vistas for picnic tables and hangout spots, and drainage control features to protect the road and beach pathways from erosive runoff.



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Survey Steps (3)

Click the heart icon to register your vote.

PCRP Saipan Watershed Restoration Priorities

Find address or place

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Home

-

Location

The Grotto

Achugao

Saipan


Capitol Hill

Laolao Bay

Saipan International Airport

LauLau Bay Drive and Shoreline Resiliency Project

Realignment of road, native vegetation plantings, elevated vistas for picnic tables and hangout spots, and drainage control features to protect the road and beach pathways from erosive runoff.



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Roundtable

Updates, concerns, opportunities?

- Job Opportunity: Guam Watershed Management Coordinator
 - Guam Department of Agriculture, Hagatna, Guam
 - More info & apply: <https://www.guamcoralreefs.info/opportunities/watershed-management-coordinator>
- Job Opportunity: Marine Science Internship
 - National Park Service (NPS) War in the Pacific National Historic Park, Hagatna, Guam
 - “This position will assist National Park Service personnel and staff with protecting and monitoring the marine environment”
 - \$633 weekly living allowance, plus travel
 - More info & apply: <https://www.thesca.org/position/marine-science-intern-po-00732461/>
- Job Opportunity: Micronesia Challenge Young Champions Internship
 - CNMI, Guam, FSM, Marshall Islands, Palau
 - \$5,000 available for each intern
 - For more information contact MC Regional Coordinator <micronesia.challenge2030@gmail.com>
- Funding Opportunity: EPA Region 9 Wetland Program Development Grant
 - \$50,000 – 500,000 (**25% cost share**)
 - “The goals of EPA’s wetland program include increasing the quantity and quality of wetlands in the U.S. by conserving and restoring wetland acreage and improving wetland condition..”
 - Full application due Nov. 20, 2023
 - More info & apply: <https://www.grants.gov/web/grants/view-opportunity.html?oppld=350474>

Thank you!



Zachary B. Williams | Watershed Coordinator (BECQ-DCRM-CRI)
zwilliams@dcrm.gov.mp | (670) 664-8303

