Man, Land, & Sea

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INSIDE

Protecting Guam from Ridge to Reef

Mayor's Council President's MESSAGE

Mayors' Council of Guam
Konsehelon Mahot Guåhan

Hafa Adai!

The Mayors' Council of Guam has and continues to participate in programs that impact the beauty of our island, the cleanliness of our environment, and the awareness of our residents in implementing viable recycling efforts.

Over the years, in collaboration with the Guam Environmental Protection Agency and the Islandwide Clean-up Program, we have collected thousands of abandoned vehicles and discarded tires, truckloads of white goods and loose metals, hundreds of pieces of electronics, and tons of green waste. Our efforts continue to this day and we will soon undertake another year of fulfilling our mandates to beautify our villages and keep our environment safe and clean.

Our efforts are made easier by the cooperation of our residents to participate in the Islandwide Clean-up Program. We also have very successful Sister Squadrons and Commands with various military entities that volunteer at various times to work hand in hand with our offices to clean up around our villages, spruce up our roadways and rehabilitate our facilities. We have embarked on another environmental program with the University of Guam's Guam Green Growth Conservation Corps in beautifying our villages one at a time.

We do all this, because, as frontliners in the work we do in our communities, we must always be on the forefront in leading our residents to take stock of our surroundings and our environment. We do all this because we want to ensure the future for our children is not just bright but brighter. We do all this because this is our island and our home.

Sincerely,

JESSE L.G. ALIG
President and Mayor of Piti

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"...we must always be on the forefront in leading our residents to take stock of our surroundings and our environment."

MULTI-AGENCY SUMMIT CONDUCTED FOR

The Guam Forest System Plan

The Bureau of Statistics and Plans (BSP), Guam Coastal Management Program, in partnership with the Guam Department of Agriculture, held a Guam Forest System Plan mini-summit on September 1, 2021.

The summit brought in key individuals from the Department of Land Management, CHamoru Land Trust Commission, Department of Parks and Recreation, Guam State Historic Preservation Office, Department of Public Works, Guam Preservation Trust, and the 36th Guam Legislature, to collaborate in developing the Land Inventory element of the Guam Forest System Plan as required by the Guam Forest Legacy Act (P.L. 31-173).

The group reviewed lands proposed for inclusion in the inventory to determine the compatibility in the Guam Forest System. Compatibility for inclusion in the System was determined based on criteria that:

- the land must possess necessary characteristics that are potentially functional for maintaining conservation and preservation;

- providing for opportunities for education for the purpose of conservation, preservation, environmental science, and other related curricula;

- for conducting scientific research;

- for training for agriculture-related personnel or those involved in natural resource fields and/or disciplines or relative activities;

- and for providing areas for recreation.

Guam Coastal Management Program Administrator, Edwin Reyes explained: **"Conservation is ever more important as development continues to increase. This summit was a successful event where Government agencies did the hard work of identifying specific lands through the assessment of various natural, built, cultural, and land-use constraints that would make the area suitable for inclusion in the Guam Forest System Plan. This is the most critical element of the plan, as it determines lands for which the plan will provide specific goals and policies."**

"The plan is expected to be ready for submission to the Governor for review by the end of the year and finalized for adoption by January 2022," Reyes concluded.

Coastal Erosion Hazard Scoping

Meeting and Regulatory Overview

By: Julian Janssen, GCMP Federal Consistency Coordinator

On September 23rd, the Guam Management Program (GCMP) hosted a scoping meeting to advance nature-based solutions in addressing coastal erosion occurring at Nimitz Beach and Inarajan Bay. The meeting brought together experts from Washington State Department of Ecology, federal regulatory staff from the U.S. Army Corps of Engineers and NOAA Fisheries, regulatory and planning staff from several Government of Guam agencies, community members, and the Mayors of Agat and Inarajan, to engage in early stages of the planning process.

Mr. Edwin Reyes, Administrator of GCMP, has been concerned about protecting Guam's shorelines from erosion for a long time. Nimitz Beach has been an area of concern for coastal erosion for years. Last year, it was included in the Agat Bay Regional Shoreline Assessment conducted by the U.S. Army Corps of Engineers on behalf of the Bureau of Statistics and Plans. Over the years, Administrator Reyes has networked and reached out to other managers and staff of Coastal Zone Management Programs at every opportunity. When GCMP recently hosted the 6th Annual Planners' Symposium, he invited staff from the Washington State Department of Ecology, Dr. George Kaminsky, Coastal Engineer, and Mr. Bobbak Talebi, Senior Coastal Planner, to attend and conduct site visits to areas in Guam which are experiencing increased erosion.

(Pictured L-R) Tyrone Taitano, Director of BSP; Bobbak Talebi, Senior Coastal Planner-Washington State Department of Ecology; Dr. George Kaminsky, Coastal Engineer-Washington State Department of Ecology; Governor Lou Leon Guerrero, and Edwin Reyes, Administrator of GCMP

During the scoping meeting, Dr. Kaminsky and Mr. Talebi each provided information on an engineered approach to coastal erosion that mimics natural processes. The approach, called dynamic revetment, has been implemented for 20 years in Oregon and Washington, both of which tend to have higher energy wave activity than we experience in Guam, which is reduced in part due to the protection provided by Guam's coral reefs. Other approaches to coastal erosion tend to"armor" the shoreline, by installing either seawalls or large boulders, known as riprap, along the shore, which often result in increased erosion seaward of the installation and increased erosion past the ends of the installed erosion control measure. However, as described by Dr. Kaminsky, dynamic revetment involves the installation of pebbles or relatively small rocks higher on the shoreline, which helps dissipate wave energy and can result in the accumulation of additional sand on the beach.

Kaminsky and Talebi discussed how seasonal and individual wave events, such as storm surges, are often the drivers of erosion and that the use of dynamic revetment allows for seasonal accumulation which counters the general trend of erosion. Because the dynamic revetment is comprised of pebbles and small rocks, the cost of installation tends to be lower than other forms of erosion control, but since the dynamic revetment material is more mobile than seawalls or riprap, there is an increased need to monitor and adapt the installation to changing conditions.

In addition to the invaluable insights provided by Dr. Kaminsky and Mr. Talebi, federal and local regulatory staff shared the anticipated needs for the proposed activity to be conducted in compliance with federal and local requirements. These include the provision of detailed plans and conducting environmental assessments for the areas of the Agat and Inarajan shorelines where dynamic revetments are under consideration.

Guam Coastal Management Program Hosts 2021 Annual Planner's Symposium

Edwin Reyes, Administrator, Guam Coastal Management Program delivers introductory remarks

Governor Lou Leon Guerrero

The 6th Assembly of Planners' Symposium combined with the Pacific Risk Management 'Ohana was held on August 18 and 19, 2021 at the Dusit Thani Guam Resort. The theme of the Symposium was: "Perseverance, Building Resilience, and Navigating the Way Forward."

Ginger Cruz introduces virtual Key Note Speaker Dr, Karl Kim

This two-day Symposium was a Hybrid Conference, hosting in-person and virtual attendance via Zoom to allow for social distancing and capacity limitations. The virtual component allowed both on and off-island participants to view the conference as if they were attending live. In-person attendance was capped at 160 participants and virtual participants exceeded over 120 attendees on both days.

Tyrone Taitano, BSP director

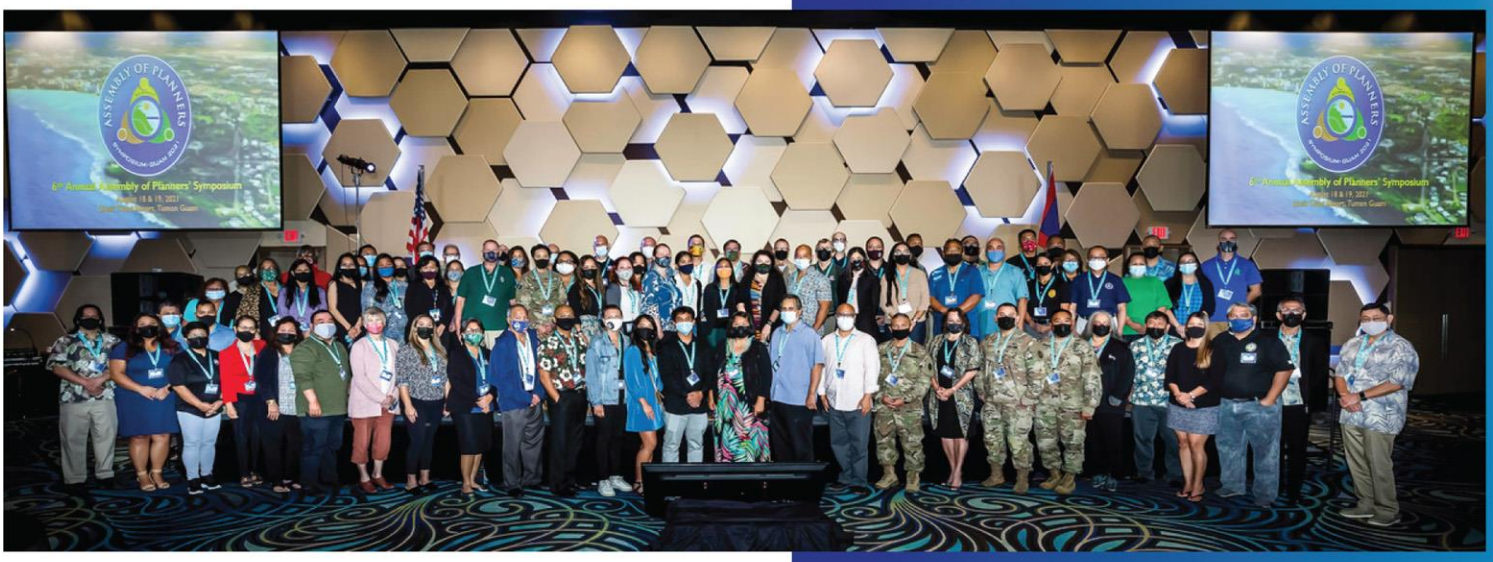
The first day of the Symposium featured topics on land and natural coastal resource issues through discussions, face-to-face sharing of information, developing strategies, and comprehensive planning. The first day featured three main tracks: flood control, land use planning, and zero-waste. Panelists included management experts from respective fields who discussed and addressed real-life scenarios that could be resolved or at least contribute to solutions through the collective efforts of Guam's planning, resource management, and policy communities. Led by opening remarks by Governor Lou Leon Guerrero, the keynote address was presented by Dr. Karl Kim, Ph.D. from the Department of Urban and Regional Planning, University of Hawaii.

The afternoon sessions consisted of various breakout sessions including Enabling our Pacific Partners- Honolulu District Civil & Public Works 101, presenting a Civil Works 101 basic overview of the mission and authorities in the Pacific. Also featured was a presentation of Community-Centric Village Planning by the American Institute of Architects. Julian Jannsen of GCMP provided a presentation on Federal Consistency, and the Zero Waste Guam Working Group provided updates on the pilot project on Food Recovery on Guam, Greening Roadway Infrastructure, and an update on the Guam Biosolids Composting Project.

Both days of the Symposium were filmed in their entirety by PBS Guam and will be released as episodes on GCMP's social media pages and GCMP's YouTube Channel once complete. Find us at #GuamCoastal. Speaker Presentations, Photos, Conference Agenda, and other information can be found on the GCMP website: https://bsp.guam.gov/aop-home/.

The second day of the Symposium was led by the Pacific Risk Management 'Ohana (PRiMO), an organization based in Hawaii that brings people together to help Pacific Island communities become more resilient to the impacts of natural hazards. PRiMO discussed the opportunities of a coordinated, integrated all-of-Guam approach to disaster recovery, encompassing both the current COVID-19 recovery effort and future recoveries from disasters of any type. Led by opening remarks by Lt. Governor Joshua Tenorio, the keynote address was presented by Ms. Colby Stanton, Director of Readiness, Pacific Area Office, FEMA Region IX, who provided an overview of the day's intended outcomes and an overview of the Federal approach to recovery from disasters under the National Disaster Recovery Framework.

Colby Stanton, Director of Readiness, Pacific Area Office, FEMA Region IX



Day 2 Assembly of Planners Symposium 2021

Marine Debris Program ANNUAL ART CONTEST

https://marinedebris.noaa.gov/annual-noaa-marine-debris-program-art-contest-and-calendar

The NOAA Marine Debris Art Contest is now open!
Entries may be submitted electronically or by mail and are due by December 10, 2021.

Annual Marine Debris Program Art Contest Overview

The NOAA Marine Debris Program holds an annual art contest to reach K-8 students and help raise awareness about marine debris. Marine debris is a global issue and we believe that engaging our youth is an important part of addressing the problem. The resulting calendar, featuring the winning artwork, provides a daily reminder of how important it is for us to be responsible stewards of the ocean. Students are highly encouraged to check out resources on this web site for Information about marine debris: https://marinedebris.noaa.gov

Who is eligible to enter the contest?

All students in kindergarten through eighth grade from all U.S. states and territories in recognized public, private, and home schools are eligible to participate. Schools, including home schools, must be in compliance with federal and state civil rights and nondiscrimination statutes. Students may submit entries on their own or as part of a classroom, but must work individually.

Entry Requirements

Each entry must be composed of a piece of artwork and a description (on the entry form). All must meet the artwork and description requirements. A NOAA awards panel will collect all entries and select 13 winners to be featured in a marine debris calendar. Entries will be judged on the creativity, artistic presentation, and relevancy to the theme of:

1. How marine debris impacts the ocean and the Great Lakes environment.

2. What you are doing to help prevent marine debris.

Artwork & Description Requirements:

1. One entry per student.
2. The entries must be on a single sheet of 8.5" x 11" paper, landscape.
3. Use white, non-glossy paper; do not laminate.
4. Any art medium may be used (e.g., colored pencils, crayons, paint), computer graphics will not be accepted. Artwork must be hand-drawn by the student.
5. Artwork must be flat (e.g., no glued pieces or glitter) and able to be scanned.
6. Avoid labeling debris items with any brand names in the artwork.
7. A description of no more than 75 words must accompany the artwork (space provided on the entry form).
8. Label each mail entry on the back in pencil (marker bleeds through the artwork) with student's name, age, and grade, along with the teacher's name, school name, address, an telephone number.
9. If submitting your entry electronically, accepted file types are: JPEG, PNG, or TIFF. Make sure your files are high resolution (scanning is encouraged), not crooked, and are easy to see and/or read.

Artwork by Ariana E., Grade 5, Guam

Artwork by Jeewoo S., Grade 8, Commonwealth of the Northern Marianas Islands

Artwork by Daniel N., Grade 5, Commonwealth of the Northern Marianas Islands

Congratulations!

To our annual NOAA Marine Debris Program Art Contest winners! The Marine Debris Program selected 13 pieces of work, and they are featured in our 2022 Marine Debris Calendar! Thank you to all the students who participated in this year's contest!

Download the calendar at: http://tinyurl.com/fsrxpwd8

Entry Submission

This year we are accepting entries by mail and electronically. There should be one entry form filled out per student. Please ensure that the entry form is filled out completely and legibly. All entries (entry form + artwork) must be submitted by mail (postmarked) or electronically no later than December 10, 2021. An entry form can be downloaded on our web site.

If you have any questions, please email md.artcontest@noaa.gov

Submitting Entries By Mail
Mail your entry (entry form + artwork) to:

Marine Debris Art Contest
NOAA Marine Debris Program
1305 East-West Highway,
SSMC4, 10th Floor
Silver Spring, MD 20910

Submitting Entries Electronically
Email your entry (entry form + artwork) to:

md.artcontest@noaa.gov

- **Attach the entry form.**
- **Attach the artwork as a JPEG, PNG, or TIFF**
- **Make sure your artwork is high resolution (scanning is encouraged), not crooked, and are easy to see and/or read.**
- **Please note:** Our email system will not accept emails with attachments larger than 18MB. If you are submitting multiple entries via email, please number them, send them in individual emails, or reach out to confirm we have received all of your entries.

Man, Land, and Sea Newsletter
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https://bsp.guam.gov/guam-coastal-management-program/

THE BENEFITS OF A RAINWATER CATCHMENT SYSTEM

DEPARTMENT OF CORRECTIONS RAINWATER CATCHMENT SYSTEM

This 1,000-gallon water tank was connected to an existing structure at the Department of Corrections in Mangilao. A piping system connects the water to an area to support irrigation and water needs for the DOC piggery and farm, while a concrete base supports the water tank.

A rainwater catchment system is a technique that collects, diverts, and stores rainwater in a barrel or cistern for other ways that water can be used. Harvesting rainwater is a resourceful sustainable practice to manage stormwater runoff on your property and water your plants among other things. It provides many benefits to individuals, communities and the environment.

Reduces Groundwater Contamination.
Collecting rainwater reduces the amount of runoff that makes its way into our water supplies by rerouting it into designated storage containers. This in turn decreases the amount of these untreated pollutants, and reduces groundwater contamination.

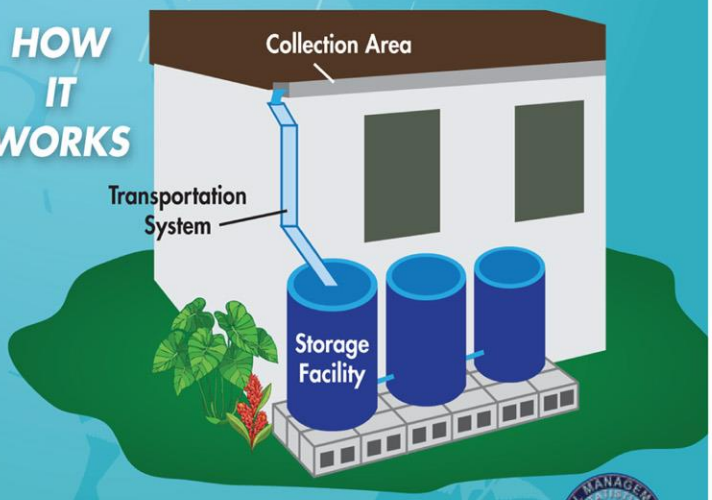
Lowers the Risk of Flooding and Soil Erosion.
Capturing rainwater before it reaches the ground reduces flooding in low lying areas and helps control erosion caused by runoff. These results can be significant when utilizing a large cistern or high volume water storage system.

Keeps Sediment and Pollutants Out of Coral Reefs.
Coral reefs need sunlight for coral growth and reef building. Sediments can smother coral and impact coral reproduction. Suspended sediments decrease fertilization success and survival of coral larvae and newly settled corals.

Can Lower Your Water Bills.
Every time you water your lawn or wash your car, your water meter spins, slowly clicking away the dollars, as wasted tap water flows into the ground. By using collected water, you can decrease your tap water usage and replace it with a completely free resource.

There Are Many Ways to Use the Water.
- Watering your garden, lawn or field
- Flushing toilets or washing clothes
- Washing your vehicle
- Supplementing the water supply in case of fire

HOW IT WORKS



FOR MORE INFORMATION, PLEASE CONTACT GCMP
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