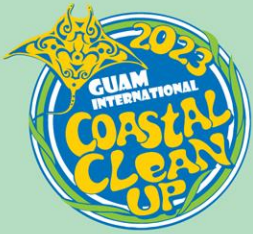


# Man, Land, & Sea

A publication by Guam Coastal Management Program

August 31, 2023



Join the Fight for  
Trash-Free Seas!

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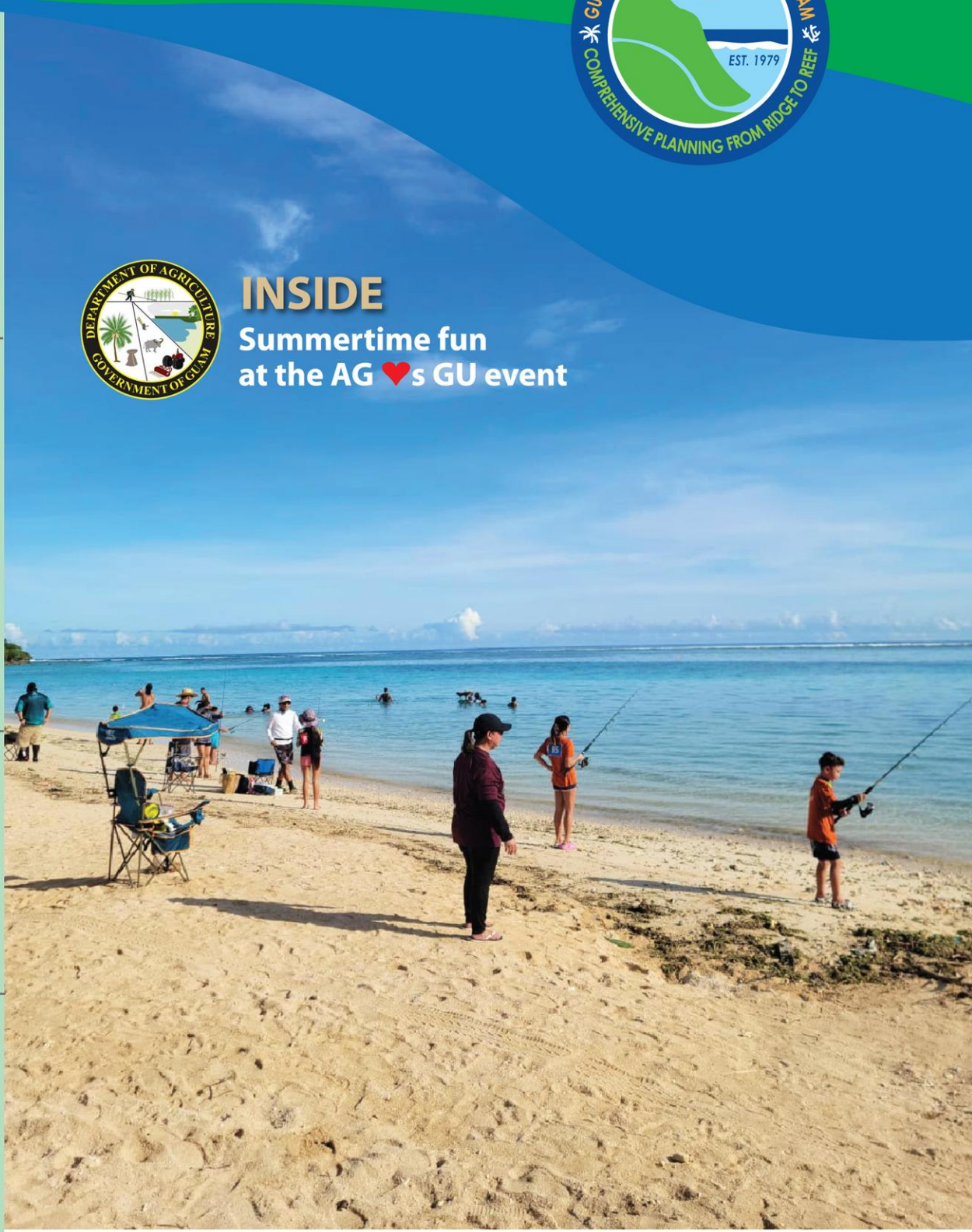
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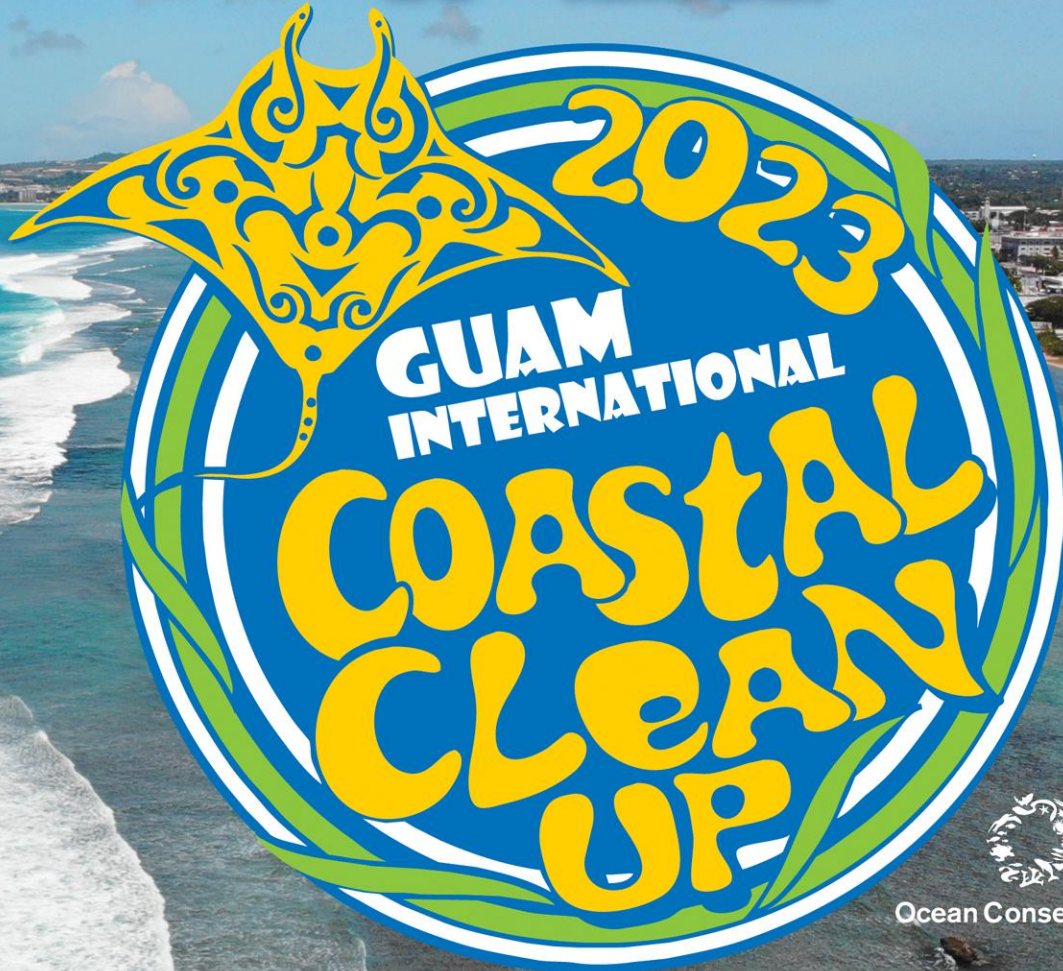
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Protecting Guam  
from Ridge to Reef





# 29<sup>TH</sup> Annual



Ocean Conservancy®

## Saturday, September 16, 2023

**FREE  
T-SHIRTS**

While supplies last!

Trash Bags  
and Gloves Provided.

Register Your Group Online  
Visit: [bsp.guam.gov/gicc2023](https://bsp.guam.gov/gicc2023)



FOR MORE INFORMATION CONTACT:  
GCMP@BSP.GUAM.GOV OR CALL 671-475-9647



# 29TH Annual Guam International Coastal Cleanup 2023: Join the Fight for Trash-Free Seas!

By: The Guam Coastal Management Program

The Bureau of Statistics and Plans, Guam Coastal Management Program is pleased to announce the 29th Annual Guam International Coastal Cleanup, scheduled to take place on Saturday, September 16, 2023. This highly anticipated event brings together thousands of volunteers united in their mission to protect and preserve Guam's beautiful coastline.

The Guam International Coastal Cleanup has become a landmark event in our island community for decades, drawing participants from local organizations, schools, businesses, and individuals who share a passion for environmental conservation and stewardship. With the support of these dedicated volunteers, we have made significant strides in keeping our oceans clean and safe for marine life.

Guam first joined the Ocean Conservancy in this worldwide effort to prevent pollution with three sites: Ylig Bay, Agat Shore, and Dungca's Beach with only 450 volunteers. Guam is now in its 29th year with over 25 sites and over 4,000 volunteers collecting several tons of trash from Guam's beaches.

The Guam International Coastal Cleanup is organized and led by the Guam Coastal Management Program with generous Site Leader Volunteers who organize and manage each of the cleanup site locations. In cooperation with the Guam Department of Education (GDOE), students can earn valuable service-learning hours for participating.

The 25 cleanup site locations are found in the registration form with a show time of 6:00 am.

Registered volunteers will receive gloves, trash bags, and a free Coastal Cleanup T-shirt at check-in (while supplies last). Minors registered under a group must be accompanied by their registered chaperones to participate and receive supplies. Please wear appropriate clothing for outdoors, sunblock, and bring your refillable water bottle.

To improve the volunteer experience, we require all volunteers to pre-register for the event through our Eventbrite ticketing website. There is NO on-site registration on the day of the event. Unregistered individuals wanting to volunteer will be turned away. The number of tickets for each site will be capped based on the severity of trash in the area and the number of volunteers needed.



Volunteers for the 2022 Guam Coastal Cleanup prepare their groups prior to the cleanup event in Ipan, Talofofo.



Peggy Denney, (left) Program Administrator with i\*recycle works with volunteers to sort recyclables in Hâgat at the 2022 Guam Coastal Cleanup.



Site Leaders with the National Park Service instruct volunteers ready to start last year's cleanup of the War in the Pacific National Historic Park in Asan.



Register now at  
<https://bsp.guam.gov/gicc2023/>  
or on Eventbrite at:

<https://www.eventbrite.com/e/2023-guam-international-coastal-cleanup-tickets-694529776257>



For other inquiries contact  
[gcmp@bsp.guam.gov](mailto:gcmp@bsp.guam.gov)





One of the summer interns with the Guam Coral Reef Initiative showing visitors how to play the reef species memory matching game that interns created.



Law Enforcement Section Conservation Officers and interns with the UTV four-wheeler.



Visitors at the ADS booth learning more about tissue cultures.



## Summertime Fun Event!

On Saturday, August 5th, the Guam Department of Agriculture (DoAg) welcomed the community to its biannual “AG ♥s GU” outreach event in Ypao Beach Park. This event celebrated our connections to the land and the sea and offered activity booths for people of all ages to learn more about our island's natural resources. Each DoAg division hosted a booth and ran activities with assistance from summer interns through the Governor’s Summer Youth Employment Program. Interns were in charge of developing activities and running the booths in order to gain experience in community outreach, and they did a fantastic job of engaging visitors and sharing their enthusiasm for the natural world!

This event was fun for the whole family and featured a range of activities. The Law Enforcement Section brought their UTV four-wheeler and offered free joy rides around the park. Interns with the Forestry and Soil Resources Division (FSRD) challenged visitors to match seedling plants to their parent trees, putting their local plant knowledge to the test. The Division of Aquatic and Wildlife Resources (DAWR) hosted a display of their local clam farm project, and interns quizzed participants on their knowledge of local wildlife. The Agricultural Development Services (ADS) demonstrated plant grafting techniques and gave out free local seeds for participants to start their own gardens.





*Participants in the DAWR kids fishing derby waiting for fish to bite.*



*An Animal Control Officer shows visitors about gear used in safely capturing stray dogs.*



*Participants play the seedling matching game with the Forestry division.*



*Biosecurity staff showing visitors their local honeybee display.*

Animal Control Officers and interns with the Animal Health Division demonstrated methods for safely trapping stray dogs and gave out free dog food to pet owners. Interns with the Guam Coral Reef Initiative engaged visitors with a touch tank full of friendly marine life and challenged participants to a fun coral reef-themed memory matching game. Last but not least, the Biosecurity division educated the public on invasive pest species with their coconut rhinoceros beetle display and hornet traps.

In addition to the activity booths, this event featured a kid's fishing derby organized by DAWR. The derby had a great turnout, with 44 children ages 6-17 participating in the hook-and-line shore-based fishing event. Tumon Bay, where the derby was held, is a marine preserve with fishing regulations, so this meant that the derby was catch-and-release for all species except for manahak, sesyun, kichu, ti'ao, and i'e'. Participants altogether landed a total of 15 fish, with the largest I'e' measuring 7 inches.

Fun was had by all at this year's AG ♥s GU event and we look forward to the next one! To stay updated with DoAg events and programs, please follow:

[@doag.forestry](https://twitter.com/doag.forestry) [@doag.dawr](https://twitter.com/doag.dawr) [@doag.adsguam](https://twitter.com/doag.adsguam) [@doag.biosecurity](https://twitter.com/doag.biosecurity)  
[@guamcoralreefs](https://twitter.com/guamcoralreefs) [@doag.conservation](https://twitter.com/doag.conservation) [@doag.animalhealth.gu](https://twitter.com/doag.animalhealth.gu)





## Guam Seagrass and Mangrove Conservation Coordinator brings back a better understanding of blue carbon from Singapore.



Scientists, students, and other environmental professionals look at seagrasses during an early morning low tide at Labrador Park.

The Asia Pacific Coral Reef Symposium (APCRS) occurs once every four years to bring scientists, students, natural resource managers, and other stakeholders together to share knowledge and conservation best practices and ideas regarding coral reefs and associated tropical marine habitats. This past June 2023, the 5th APRCS was held in Singapore at the National University of Singapore (NUS). Many students and scientists from Guam attended and shared their work at the conference. Cara Lin, the Seagrass and Mangrove Conservation Coordinator at the Guam Coral Reef Initiative, participated in the symposium to

learn about Pacific seagrasses and mangroves from other regional experts and also update her knowledge about coral reefs, fisheries, research techniques, restoration, and community-driven conservation.

Cara attended a seagrass management and restoration workshop, a site visit to a nearby seagrass bed in Labrador Park, and talks and poster presentations featuring



Cara learning from Dr. Naima Iram by participating in her fieldwork in the mangroves and taking water quality measurements.

recent seagrass science. At the field site, she observed the different seagrass species and how urbanized areas can coexist with efforts to maintain coastal habitats. During the workshop, Cara joined in with other scientists to identify seagrass research needs and learned about factors affecting carbon storage in seagrass.

Cara also met with Dr. Naima Iram, a research fellow at the Center for Natural Climate Solutions at NUS, to learn about the science of blue carbon. Mangroves, seagrasses, and salt marshes are coastal habitats that are capable of storing massive amounts of carbon underground, and conserving these areas is an important part of combatting climate change. Since these habitats are associated with the ocean, the carbon they store is known as blue carbon.

To estimate blue carbon storage, scientists must understand many factors that affect the amount of carbon being stored in the plants and soil versus carbon being released as greenhouse gases such as carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>). In the mangroves, Cara observed how Dr. Naima used specially designed chambers to collect the greenhouse gases released from the mangrove sediments. Information on greenhouse gas emissions can improve our understanding of how much carbon dioxide is emitted from the sediment, which is necessary to get an accurate estimate of how much net carbon is stored in blue carbon ecosystems. Globally, blue carbon is currently receiving more attention, with more countries putting efforts toward estimating blue carbon storage and businesses potentially seeking to lower their carbon footprint by protecting or restoring mangroves and seagrasses. However, blue carbon science is not straightforward, and understanding the many socioeconomic and scientific factors involved in accurate carbon assessments can be challenging. Cara's visit to Singapore enhanced her understanding of blue carbon science and the potential of blue carbon ecosystems for inclusion into climate action frameworks.



Equipment used to collect greenhouse gases emitted from mangrove sediments. Research like this enables scientists to better understand how efficiently carbon is stored and informs climate change policies.



# 8TH ASSEMBLY OF PLANNERS SYMPOSIUM

PRESENTS

## Mobilizing the Guåhan 2050 Sustainable Development Plan

Providing a Framework for Public Participation.



SEPTEMBER 21, 2023

HYATT REGENCY GUAM RESORT

A major focus of this year's symposium will be to inform the narration of the Guåhan 2050 Sustainability Plan (G50SP). This plan will update Guam's Comprehensive Development Plan (1978). The Bureau of Statistics and Plans, in coordination with the Government of Guam Agencies, is pursuing the creation of the G50SP as mandated by P.L. No. 35-110. This endeavor will take place over the next 2 years, in which BSP is committed to creating a well-designed government-led planning process that is properly informed through public engagement. This event is the first of other opportunities to take an active role in the plan formulation and scripting the G50SP.

Participants will be led through facilitated discussion to provide input on a problem, issue, or focus area, in which policies, goals and/or objectives can be included in the G50SP.



### MAJOR ELEMENTS OF THE G50SP

- Natural Environment
- Land Use and Infrastructure
- Economy
- Society and Culture
- Implementation



Take Ownership.

Community and Stakeholder Focused.

Be a Part of Change.



**REGISTER NOW**  
LIMITED SEATS AVAILABLE.

[BSP.GUAM.GOV/AOP2023](https://bsp.guam.gov/aop2023)

For more information contact Steven Dierking at: [steven.dierking@bsp.guam.gov](mailto:steven.dierking@bsp.guam.gov) or call 671-475-9647



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

# DESIGNING OPEN SPACE

Community open, green space is socially valuable. Walkable neighborhoods, parks, and open green spaces draw people outside and foster social interactions, integrate nature into the urban environment, and provide a revitalizing contrast to the harsh shape, color, and texture of buildings.

Open, green spaces in communities are attractive to prospective buyers and generate multiple economic benefits for local governments, homeowners, and businesses and play an important role in policy-making decisions about zoning, restrictions on land use, government purchase of lands for parks, and similar initiatives.

Open spaces are great places for members of the community to meet, interact and enjoy their community and provide socio-economic benefits including an increase in local shopping and dining; ultimately investing in the local economy increases community engagement and instills greater pride in the community as a whole.

**Some opportunities for community open space can include:**

- Schoolyards
- Playgrounds
- Public seating areas
- Public plazas
- Vacant lots
- Green space (land that is partly or completely covered with grass, trees, shrubs, or other vegetation)
- Parks
- Community gardens
- Cemeteries

Source: <https://www.epa.gov/G3/>



## Organizing a Beach Cleanup? We can help!

Contact the Guam Coastal Management Program and get connected with other volunteers and supplies. Call 671-475-9647 or email [gcmp@bsp.guam.gov](mailto:gcmp@bsp.guam.gov) for more information.  
\*limited supplies available per cleanup event.



**FOR MORE INFORMATION,  
PLEASE CONTACT THE GUAM COASTAL MANAGEMENT PROGRAM  
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