

# DCRM

*Division of Coastal Resources Management*

## ABOUT US

### PROGRAMS

- Permitting
- Enforcement
- Coastal Planning
- Education & Outreach
- Climate Change Adaptation
- Coral Reef Initiative
- Marine Monitoring
- Watershed Management

### BOARD MEMBERS

**DIVISION OF COASTAL RESOURCES MANAGEMENT**  
**Richard Salas** *Acting Director*  
 CRM Board Chair

### DIVISION OF ENVIRONMENTAL QUALITY

**Zabrina Shai** *Acting Director*  
 Authorized Rep: Merrill Ayuyu

### DEPARTMENT OF COMMERCE

**Edward Deleon Guerrero** *Secretary*  
 Authorized Rep: Kioshi Cody

### DEPARTMENT OF LANDS & NATURAL RESOURCES

**Tony Benavente** *Secretary*  
 Authorized Rep: Gus Kaipat

### DEPARTMENT OF PUBLIC WORKS

**James A. Ada** *Secretary*  
 Authorized Rep: Edwin Tmarsel

### COMMONWEALTH UTILITIES CORP.

**Gary P. Camacho** *Secretary*  
 Authorized Rep: Larry Manacop

### HISTORIC PRESERVATION OFFICE

**Rita Dela Cruz-Chong** *State Historic Preservation Officer*  
 Authorized Rep: Juan Palacios

### CONTACT US

**WWW.DCRM.GOV.MP**

Tel.: (670) 664 8300 | Fax: (670) 664 8315  
 P.O. Box 501304 Saipan, MP 96950



@CNMIDCRM



@GoingCoastal\_CNMI



*Working to promote wise use and conservation of our coastal resources*



### Our Vision

An informed CNMI actively protects and maintains a clean and healthy environment and makes decisions that balance cultural values, environmental integrity, and economic prosperity.



### Our Mission

To protect and enhance the CNMI's coastal resources for residents and visitors through effective and adaptive resource management, inter-agency collaboration, and stakeholder engagement, in a manner that builds and sustains community resilience and well-being.

## DCRM PERMITTING

DCRM's Permitting Section is responsible for permitting minor and major developments and/or projects that are situated within and around DCRM's designated Areas of Particular Concern (APCs) including developments that have potential to cause significant adverse impacts to the CNMI's coastal resources. DCRM also receives and reviews One-Start Applications from BECO's Division of Environmental Quality. During FY2021, DCRM:



received and reviewed  
**586** permit applications



of the 586 permits reviewed,  
**129** projects were subject to a DCRM permit

# 2021 In Review



## CORAL REEF RESTORATION

This year, the Division of Coastal Resources Management, in cooperation with the Division of Fish & Wildlife (DFW), installed the coral nursery in the Saipan lagoon. A multi-million dollar grant acquired from the National Fish and Wildlife Service (NFWF) will help support marine and terrestrial restoration efforts in the CNMI, including the coral nursery. The nursery consists of six (6) coral trees and two (2) coral tables. Currently, there are approximately 150 coral fragments of three (3) different species in the nursery with plans to completely fill the trees and tables and to expand the nursery to include more structures. The DCRM Coral Restoration Team hopes to begin outplanting fragments from the nursery onto the reefs within the upcoming year. The

team will also be building partnerships between several government agencies, non-government organizations (NGOs) and the Public School System (PSS) to conduct education and outreach on coral ecology and conservation in hopes to promote environmental stewardship and restore the health of the CNMI's coral reef systems through community involvement. *This project works towards DCRM's Strategic Plan Goal 3: Management of coastal resources are improved through monitoring and research.*

## INTERNATIONAL COASTAL CLEANUP

The annual International Coastal Cleanup was held on Friday, September 17th, on Tinian and Rota and on Saturday, September 18th, on Saipan. A total of 1,574 volunteers collected 6,079 pounds of trash at 82 different locations across the CNMI. In Saipan, 4,360 pounds of trash were collected by 893 volunteers at 42 locations. In Tinian, 687 pounds of trash were collected by 149 volunteers at 10 locations. In Rota, 1,032 pounds of trash were collected by 532 volunteers at 30 locations. Compared to the



year prior, the number of participants in the CNMI drastically increased from 971 to 1,574 and the amount of trash that was collected decreased from 9,097 to 6,079. This tells us that environmental stewardship is present in our community and the amount of illegal litter and/or marine debris in our environment has lessened over the past year.

*This project works towards DCRM's Strategic Plan Goal 4: Strengthen communication of DCRM program activities and outcomes to increase environmental stewardship and promote a resilient and sustainable CNMI.*



## DCRM SUMMER INTERNSHIP

Every year, DCRM offers a 10-week summer internship program from June to August where college-bound and current college students work on conservation projects specific to coral reef and coastal zone management in the CNMI. The success of this program prompted its

expansion in 2019, increasing the number of interns from ten (10) to fifteen (15). The 2021 internship provided project opportunities in Shoreline Monitoring, Education and Outreach, Marine Monitoring, Watershed Management, Wildfire Risk Assessment, Environmental Laboratory Surveillance, Pesticide Control, Safe Drinking Water Management, and Erosion Control Management, Sustainable Development, and Marine Debris Data Collection. This year's key partners include the Division of Environmental Quality, the Office of Planning and Development, and the Mariana Islands Nature Alliance. All fifteen interns completed 200 hours of work, a news article (which can be found on the DCRM website), and a final presentation. In addition, DCRM hired two new coral restoration technicians, both of whom were former DCRM summer interns. With that, about 20% of DCRM's staff are former summer interns. *This project works towards DCRM's Strategic Plan Goal 4: Strengthen communication of DCRM program activities and outcomes to increase environmental stewardship and promote a resilient and sustainable CNMI.*

## RAIN GARDENS

Rain gardens are low-lying areas created in a landscape to help divert, capture, filter and sink stormwater into the ground. In doing so, rain gardens can help reduce flooding, mediate runoff and land-based pollution, and create a habitat for native species. DCRM promotes the use of "best management practices" or BMPs, including rain gardens, in the CNMI, offering technical assistance and training



for interested parties. To demonstrate their utility, several rain gardens have been constructed across Saipan, including public schools and the NMI Museum of History & Culture. Over the past year, with the help of BECQ volunteers and the 2021 DCRM Summer Interns, the Tanapag Middle School rain garden has been renovated and replanted. Drainage improvements have been made to better direct rainwater from the surrounding roofs into the rain garden, reducing flooding within the school grounds. Native wetland species have been added to promote "naturescaping" principles – emulating native ecology in landscaping for the benefit of humans and wildlife. DCRM looks forward to continuing these renovations at all of our Saipan rain garden sites. *This project works towards DCRM's Strategic Plan Goal 1: Public access and use of coastal resources are enhanced, protected, and restored.*

## CNMI OCEAN MONTH (JUNE)



As a coastal community, the ocean serves as more than just a source of sustenance and recreation, but provides a number of other valuable services to support sustainable livelihoods, coastline protection, and tourism opportunities. As such, DCRM will be celebrating every June as CNMI Ocean Month in honor of World Oceans Day on June 8th. This year, DCRM hosted month-long events on Saipan, Tinian, and Rota to celebrate this invaluable resource. Events included

a proclamation signing, a roadside waving, a beach clean-up, an Ocean Fair, a social media contest, and restoration activities. The Ocean Fairs on all three (3) islands consisted of educational booths from local government, federal and non-governmental organizations; arts and crafts from local artisans and jewelry makers; and free water sport activities.

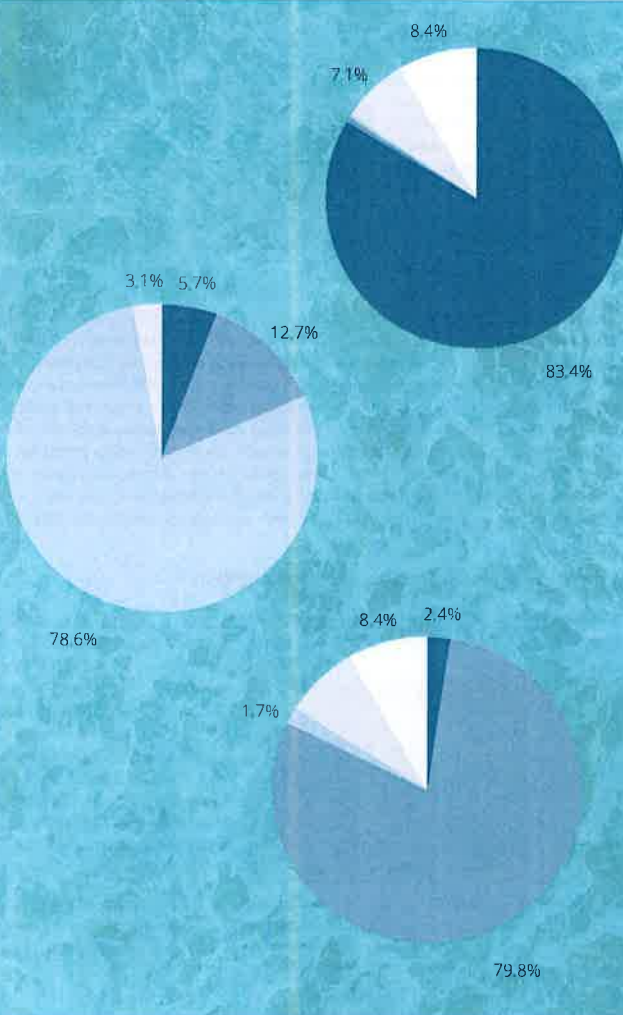
*This project works towards DCRM's Strategic Plan Goal 4: Strengthen communication of DCRM program activities and outcomes to increase environmental stewardship and promote a resilient and sustainable CNMI.*



# Revenues & Expenses

## FY 2021 FEDERAL AWARDS

| CFDA No.    | Award   |
|-------------|---|
| CFDA 11.419 | Coastal Zone Management<br>\$ 1,133,000.00  |
| CFDA 11.482 | Coral Reef Conservation Program<br>\$ 845,545.00  |
| CFDA 15.875 | Coral Reef Initiative<br>\$ 205,890.00  |
| CFDA 11.419 | Program Income<br>Permit Fees<br>\$ 17,738.00<br>Enforcement Fines<br>\$ 7,000.00<br>Total Program Income<br>\$ 24,738.00 |



## EXPENDITURES

|                                  |                          |                      |
|----------------------------------|--------------------------|----------------------|
| CFDA 11.419                      | Salary & Fringe          | \$ 809,296.00        |
|                                  | Travel                   | \$ 5,273.00          |
|                                  | Supplies                 | \$ 3,451.00          |
|                                  | Contractual              | \$ 815.00            |
|                                  | Other                    | \$ 69,290.00         |
|                                  | Indirect                 | \$ 81,750.00         |
|                                  | <b>Total Expenditure</b> | <b>\$ 969,875.00</b> |
| CFDA 11.482                      | Salary & Fringe          | \$ 507,473.00        |
|                                  | Travel                   | \$ 15,179.00         |
|                                  | Supplies                 | \$ 11,002.00         |
|                                  | Other                    | \$ 49,238.00         |
|                                  | Indirect                 | \$ 53,302.00         |
|                                  | <b>Total Expenditure</b> | <b>\$ 636,194.00</b> |
| CFDA 11.419<br>Program<br>Income | <b>Total Expenditure</b> | <b>\$ 20,297.15</b>  |



# 2022 Moving Forward

## ACHUGAO REFORESTATION



Within the CNMI, four watersheds have been identified as "priority" watersheds, selected for their economic, biological and social significance, and severity of environmental threats. The Achugao watershed is on such priority watershed, with land-based sources of pollution (LBSP) – including sedimentation, excess nutrients, and storm water runoff – being a key threat to freshwater and marine ecosystems. To address this issue, DCRM is working towards reforestation from

ridge-to-reef, in cooperation with local partners including DLNR Forestry and the Mariana Islands Nature Alliance (MINA). In the uplands of Achugao, six (6) acres have been selected for reforestation with native trees and shrubs. With the increase in forest cover in the grassland areas, soil will be stabilized and erosion reduced, while also creating habitat for Saipan's terrestrial biodiversity. DCRM has also secured funding in order to propagate and eventually plant mangroves within their native range along the shorelines of Achugao and West Takpochao watersheds. Mangroves will help to further capture and filter runoff and sediments, while creating valuable nursery habitat for fishes and other marine organisms. *This project works towards DCRM's Strategic Plan Goal 1: Public access and use of coastal resources are enhanced, protected, and restored.*

## LEARNING CENTER

Over the years, DCRM has developed many education and outreach programs aimed at addressing a variety of gaps in awareness, understanding, and management capacity of the CNMI's natural resources. In addition to the more established ongoing programs, such as the summer internship, DCRM has been working to increase the amount of opportunities for citizen science and community-



based monitoring. DCRM recognizes a need for a dedicated learning center that would provide uninterrupted training sessions to educate different targeted audience. An in-house space dedicated to learning and outreach would also increase accessibility to various aspects of resource management that have historically been inaccessible to certain members of the community. DCRM will offer training and learning courses at no cost to the participants to ensure that all who are interested will be able to avail of the resource. The learning center is scheduled to be available to the public in the early part of 2022. *This project works towards DCRM's Strategic Plan Goal 4: Strengthen communication of DCRM program activities and outcomes to increase environmental stewardship and promote a resilient and sustainable CNMI.*

## SUSTAINABLE DEVELOPMENT



Utilizing key elements of both coastal hazard preparedness and cumulative and secondary impacts, incentives for building redevelopment and stormwater management under the "Better Building Practices to Address Coastal Hazards" strategy were proposed for regulation change in the Commonwealth Register by the CFM Agency Board. These regulations will be supplemented by a Better Buildings Guidebook to incentivize developers to implement

Best Management Practices (BMPs) through fee reductions. Upon adoption of the regulations, the incentive program will be promoted through a webpage on the DCRM website and distribution of the guidebook to stakeholders. *This project works towards DCRM's Strategic Plan Goal 2: Coastal developments and activities are fairly and effectively regulated to minimize impacts to coastal resources.*

## SHORELINE MONITORING ENHANCEMENT



Sandy shorelines on Tinian, Rota, and Saipan – including Mañagaha – are regularly surveyed by our long-term shoreline monitoring program to identify erosion and accretion trends. Beach profiles are generated by transect measurements to reveal change over time. The storms of 2021 strikingly eroded the sandy stretch of Micro Beach through Crowne Plaza (formerly Fiesta

Resort & Spa Saipan). Beach profiles and before/after pictures of this effort can be accessed at the 'Shoreline Trends' tab of the Climate Impact Viewer on the DCRM website. DCRM started surveying beach sites with the total station in the continued pursuit of generating higher accuracy beach profiles. Upon the anticipated acquisition of survey grade drone, DCRM will capture beach volume before and after typhoon events to better inform shoreline management and decision-making. *This project works towards DCRM's Strategic Plan 3: Management of coastal resources are improved through monitoring and research.*

## WATERSHED WARRIORS

The Watershed Warriors program was developed to provide 4th grade students with hands-on, place-based natural science lessons as a complement to existing science public school curriculum. Previous Watershed Warriors programs were based in the Garapan watershed, and focused on stormwater and non-point source pollution issues in the area. Our new Watershed



Warriors programming has shifted to the Achugao watershed, with focus on sedimentation and other land-based sources of pollution. Last year, students at Gregorio T. Camacho (GTC) Elementary School in San Roque, Saipan participated as Watershed Warriors, learning a number of topics including the water cycle, biodiversity, pollution and solutions. Students demonstrated improved understanding across all Watershed Warrior topics. Next year, DCRM aims to expand this curriculum at GTC Elementary School, providing further place-based learning and engagement. As we adapt and navigate to conditions under COVID, we will continue to develop ways of engaging students in hands-on learning about CNMI's watersheds and natural resources, while practicing safe practices considerate of students' health and safety. *This project works towards DCRM's Strategic Plan 4: Strengthen communication of DCRM program activities and outcomes to increase environmental stewardship and promote a resilient and sustainable CNMI.*

## WETLANDS MANAGEMENT



DCRM is working towards the update and revision of the boundaries of DCRM's Wetland Areas of Particular Concern (APCs). The update and revision will be conducted through an updated wetland field assessment that incorporates delineation methodology that has been and is based on two methodologies; Rapid Assessment Methodology (RAM) and the Stream Visual

Assessment Protocol (SVAP). DCRM has contracted the Wetlands Training Institute (WTI) to provide training that will build internal capacity within DCRM and partnering agencies and NGOs. *This project works towards DCRM's Strategic Plan 3: Management of coastal resources are improved through monitoring and research.*