

# Man, Land, & Sea

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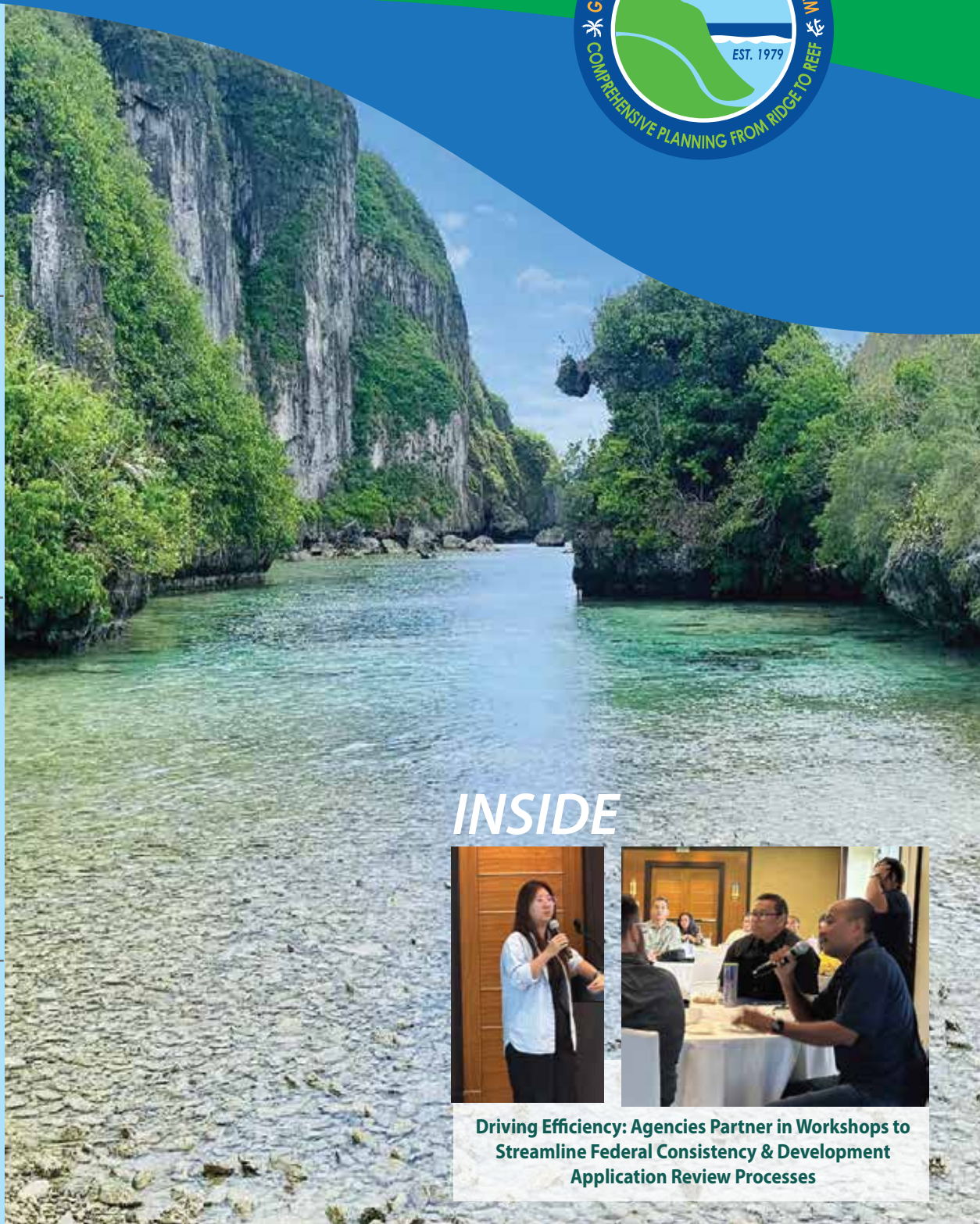
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# Addressing Guam's Water Quality Challenges Across Multiple Local and Federal Jurisdictions

By: Christian Benitez, Planner, Guam Coastal Management Program

The Guam Watershed Planning Committee (WPC) kicked off fiscal year 2026 with a landmark meeting that emphasized improved unified interagency action to protect the island's critical water systems. Co-chaired by Guam EPA and the Bureau of Statistics and Plans' Guam Coastal Management Program (GCMP), the WPC convened a powerful coalition of local and federal partners dedicated to the health of critical water systems. A top priority for the year is the active implementation of the Manell-Geus Watershed Management Plan in Merizo, which is moving beyond the drafting table and moving projects from planning into on-the-ground work. GCMP discussed the utilization of federal grant funding secured from the National Fish and Wildlife Foundation (NFWF) to implement a project identified under the plan that will install green infrastructure at the Malesso' pier such as a rain garden and bioretention basins to mitigate runoff from impervious surfaces.



The WPC also addressed a sobering water quality crisis in the Piti/Asan watershed, where heavy July rains led to significant damage in local coral nurseries and wild reefs. In a testament to interagency speed, rapid-response investigators traced murky runoff and sudden coral disease to illegal dumping within the Taguan River, leading to an initial emergency cleanup that successfully removed over 50 bags of debris. A larger follow-up operation is now being organized to eradicate remaining waste and implement stricter deterrents against dumping near local business corridors.



Furthermore, updates from the Guåhan Sentinel Landscape Program (GSLP) underscored a historic achievement, as all of Guam is now designated a priority landscape for voluntary, multi-agency conservation. GSLP is currently coordinating large-scale restoration across southern watersheds, engineering wildfire firebreaks to protect the Fena reservoir, and developing a Forest Legacy Assessment of Need to enable conservation easements that protect private lands in perpetuity.

Guam EPA has also submitted an ambitious Five-Year Nonpoint Source Management Plan to federal partners, outlining a roadmap for expanded island-wide monitoring. The plan maintains active oversight of 35 impaired sites across 13 watersheds to test for bacteria, turbidity, and nitrates, while planned fish sampling in Tumon Bay will assess dieldrin and chlordane levels to provide accurate public health advisories. Additionally, the committee is partnering with the Department of Public Works (DPW) and the Guam Waterworks Authority (GWA) to install bacteria-removal systems and promote low-interest loans for residents replacing aging septic systems over the aquifer.

Looking ahead, the WPC is moving swiftly to centralize watershed data and community resilience tools through high-tech mapping and a shared database slated for integration by next quarter. By pursuing expanded access for targeted water quality monitoring and continuing to assess the impacts of recent landslides, the committee remains steadfast in its mission to address pollution, habitat degradation, and resource management, including the oversight of restoring our highest priority watersheds.





# NEW WARNING SIGNS INSTALLED IN FLOOD PRONE AREAS IN VILLAGES AROUND GUAM



## Flood Signs Bolster Public Safety Across Guam's Flood-Prone Communities

By: Steven Dierking, Guam Coastal Management Program

In a critical move to enhance island-wide resilience and public safety, a new series of flood warning signs has been installed across Guam's most flood-prone areas. This initiative is the result of a robust inter-agency collaboration between the Bureau of Statistics and Plans, Guam Coastal Management Program (GCMP), the Guam Silver Jackets, and the U.S. Army Corps of Engineers (USACE), Village Mayors and the Department of Public Works (DPW).

The project aims to provide clear, visible warnings to residents and motorists in low-lying areas that are historically susceptible to rapid inundation during heavy rainfall and tropical storms.

The procurement and installation of these signs were made possible through the technical and financial support of the USACE. The project was spearheaded by GCMP, USACE, and DPW, an inter-agency team dedicated to reducing flood risk through shared resources and expertise.

The signs have been strategically placed in areas identified by village Mayors in High-traffic zones, low-water crossings, and known ponding areas in villages such as Asan, Santa Rita, Barrigada, and Malesso'. The installation of these signs marks a significant milestone in Guam's ongoing efforts to update its stormwater management strategies and improve the island's overall disaster preparedness posture for 2026 and beyond.





# Protecting Paradise: Training Ensures Development Protects Guam's Coastal Future

By: Steven Dierking, Guam Coastal Management Program

In a move to strengthen the island's voice in federal decision-making, the Guam Coastal Management Program (GCMP) recently hosted a comprehensive Federal Consistency Workshop, with strong support from its long-standing partnership with the U.S. Army Corps of Engineers. GCMP and USACE delivered a focused training on how Federal Consistency requirements intersect with USACE's regulatory permitting process, particularly the use of Nationwide Permits. They emphasized the critical role of early coordination in coastal development and permitting decisions.

The workshop brought together experts from various agencies—including the Guam Environmental Protection Agency (GEPA), the Department of Agriculture, the Department of Land Management, Guam Waterworks Authority, State Historic Preservation Office, GHURA and other agencies to refine the process by which federal actions are reviewed for compliance with GCMP's enforceable policies.

## The Power of "Federal Consistency"

Under Section 307 of the Coastal Zone Management Act (CZMA), federal agencies are required to ensure their actions are consistent with the "enforceable policies" of a state or territory's approved coastal management program. For Guam, this means that from military construction at Camp Blaz to offshore fisheries management, the federal government must coordinate with local authorities to prevent adverse impacts on the island's ecosystem. Esther Taitague, GCMP Senior Planner stated: "Federal consistency is one of the most powerful tools we have to ensure that Guam's unique environmental and cultural needs are not overlooked in federal projects. Our network partners are the subject matter experts who provide the technical data necessary to make these determinations."

## Collaborative Review for the 2026–2030 Cycle

The workshop comes at a pivotal time as the GCMP transitions into its 2026–2030 Assessment and Strategy period.

Participants engaged in hands-on training focused on:

### Enforceable Policy Application:

Understanding how the 18 specific policies established by Executive Order 78-37 apply to modern infrastructure and restoration projects.

### Streamlined Coordination:

Enhancing communication between "network agencies" to ensure that the Bureau of Statistics and Plans can issue timely and technically sound "concurrence" or "objection" letters.

### Case Studies:

Reviewing recent federal determinations, including military expansion projects and coastal resilience initiatives, to identify best practices for future reviews.

### Why It Matters

As Guam continues to face the dual challenges of climate-induced sea-level rise and increasing development pressure, the ability to effectively wield federal consistency is vital. By training local planners and scientists on the legal nuances of the CZMA, GCMP ensures that development does not come at the cost of the island's natural heritage.

Jen Martin, USACE Chief Regulatory Branch, noted that the agency has maintained a regulatory field office on Guam for more than 50 years and expressed hope that this workshop will serve as a starting point for future, more detailed discussions on topics that could not be fully addressed in a single session.

GCMP and USACE underscored ongoing efforts to ensure that federal actions support the responsible management and protection of Guam's coastal resources.

For more information on Federal Consistency at the Guam Coastal Management Program, contact Esther Taitague at [esther.taitague@bsp.guam.gov](mailto:esther.taitague@bsp.guam.gov).





# Planning for Progress: Workshop Strengthens Guam's Zone Change Review Process

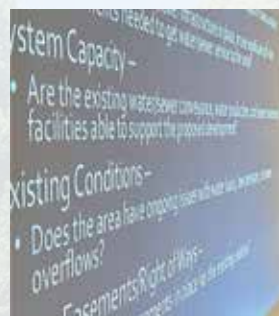
By: Christian Benitez, Planner, Guam Coastal Management Program

Bureau of Statistics and Plans (BSP), Guam Coastal Management Program hosted an Application Review Committee (ARC) workshop on Wednesday, January 14, 2026, at The Westin Resort Guam. This full-day meeting convened representatives from the BSP, the Department of Land Management (DLM), the Department of Parks and Recreation - State Historic Preservation Office (SHPO), the Guam Environmental Protection Agency (GEPA), the Guam Waterworks Authority (GWA), the Guam Power Authority (GPA), and the Guam Department of Agriculture (DOAG) to strengthen coordination, streamline reviews, and bolster capacity across member agencies.

Participants reviewed agency workflows and identified systemic gaps—such as staffing shortages, incomplete application data, and inconsistent environmental and biological assessments—that slow approvals and create enforcement vulnerabilities. A cornerstone of the session was the demonstration of extensive Geographic Information System (GIS) resources. Matthew Santos, BSP Deputy Director, detailed BSP's ARC web map, which integrates updated parcel data, zoning information, and hydrology layers for site-specific assessments. The GIS resources enables planners to visualize development constraints—such as well buffers and historic sites—to ensure data-driven decisions.

Workshop discussions also addressed recently passed laws, specifically the Affordable Housing Streamline Zone Act (PL 38-74). Attendees flagged this act as an unfunded mandate with contradictory administrative timelines and debated amending it to align with existing Summary Zone Change procedures. In a session focused on identifying gaps in the monitoring and enforcement of agency conditions, discussions centered on PL 36-7. This law is intended to close enforcement gaps regarding land use on Guam by strengthening the government's ability to ensure developers and property owners follow the terms and conditions set by the Guam Land Use Commission (GLUC).

To address existing permitting vulnerabilities and improve transparency, workshop participants proposed establishing a centralized digital tracking system that ties development timelines to each application or development project. The group also recommended creating an authoritative repository for final decisions and public notices, appointing a permits administrator, and implementing "sunset" clauses to ensure all mandates are satisfied before development proceeds. Celine Cruz, DLM Chief Planner and ARC Chair, noted that the workshop succeeded in fostering a deeper understanding of each agency's unique mandates and constraints, strengthening their collective ability to serve the public and provide applicants with a clear, informed path forward.







# Guam Silver Jackets Advance Comprehensive Resilience Strategy for 2026: Push for New Stormwater Standards & Policy Reforms

By: James Pangelinan, Planner, Guam Coastal Management Program

On December 16, 2025, the Guam Silver Jackets held a strategic meeting at the Governor's Office in Adelup to coordinate inter-agency efforts on flood mitigation, stormwater management, and environmental protection. This collaborative group unites local and federal partners and focuses on creating joint solutions for regional hazards.

## Local Government of Guam Agencies & NGOs

Guam Environmental Protection Agency (GEPA), Guam Fire Department (GFD), Bureau of Statistics and Plans (BSP) – Guam Coastal Management Program, Guam Department of Public Works (DPW), Guam Department of Agriculture-Forestry and Soil Resources Division, Guam Homeland Security/Office of Civil Defense, and the Northern Guam Soil and Water Conservation District.

## Federal and Regional Partners

United States Army Corps of Engineers (USACE), National Oceanic and Atmospheric Administration (NOAA), Federal Emergency Management Agency (FEMA).

## Strategic Infrastructure and Flood Mitigation

A primary agenda item was the transition of technical studies into active projects. The Final Flood Hazard Study, recently completed by USACE, has been submitted to Guam Homeland Security, and the team is now identifying funding sources to implement mitigation work around Finile Creek. Potential funding avenues include the USDA Regional Conservation Collaborative Program, which has supported similar local projects in the past.

The group also reviewed the Mean High Water Mark Campaign, confirming that flood signage has been successfully installed in Barrigada, Chalan Pago, and Asan. The Bureau of Statistics and Plans (BSP) is currently coordinating with USACE to acquire the remaining signs from vendors for future installations. Additionally, the group is overseeing structural projects at the Umatac River, East Agana, Agat Shoreline, and Manell River, though complexities in modeling for the Manell River have highlighted a critical need for updated rainfall data.

## Policy Reform and Stormwater Management

The Silver Jackets are currently reviewing the CNMI and Guam Storm Water Drainage Manual to modernize development standards. This update aims to incorporate a "greener" and more restrictive set of standards for new developments.



A significant challenge discussed was the management of older developments that were "grandfathered" in under outdated 1980s standards and lack modern stormwater controls.

The meeting also addressed infrastructure data and permitting. The Department of Public Works (DPW) has developed a new web map identifying the locations of island-wide stormwater infrastructure. While the map is currently hosted privately, officials are seeking clearance to share the data layer internally for agency planning purposes.

## Environmental Stewardship and Public Safety

The committee identified illegal dumping as a severe threat to the island's aquifer, drainage systems and watershed health, noting that toxic solutions dumped into the grates and ponds seep directly into the water supply, in addition to contributing to fire fuels which can create wildfires. To combat this, the group proposed a Silver Jackets outreach project specifically targeting school children to educate them on the detriments of dumping. This initiative would utilize educational watershed maps to visualize the interconnectedness of Guam's ecosystems.

Wildfire resilience was another key focus, following a Wildfire Tabletop Exercise held in May 2025 that simulated a fire crossing at Cross Island Road. The group plans to expand these exercises to improving interagency wildfire investigation, in order to streamline the wildfire investigation process for conviction as a means of deterrence.

## Future Outlook

By the next meeting in March 2026, the Silver Jackets will compile these discussed project ideas into formal proposals.





# Seashore Reserve Plan Working Group Outlines Vision for 2026

Contact: Camille Quichocho, Biologist. Guam Coastal Management Program

## Guam Strengthens Coastal Protections:

On December 23, 2025, the Bureau of Statistics and Plans, Guam Coastal Management Program, convened the final Seashore Reserve Plan (SRP) Working Group meeting of the year at the Governor's Complex to finalize core elements of the island's coastal protection strategy. Camille Quichocho, Biologist with GCMP, facilitated the session, which served as a bridge between a year of planning and the upcoming implementation phase scheduled for early 2026. The meeting focused on the final two of six key elements—population and educational/scientific use—while synthesizing previous discussions on land use, conservation, public access, and recreation.

### Defining Native Species and Establishing Baselines

A central theme of the discussion was the Population Element, which aims to establish desirable population densities and sustain native species amidst the pressures of military buildup and tourism. The group engaged in a robust debate over the definition of "native species," ultimately deciding that plant species are included, alongside aquatic and wildlife species to ensure comprehensive habitat protection. Officials emphasized the urgent need for baseline data to monitor species growth and loss, noting that without a scientific baseline, it is difficult to measure the effectiveness of conservation policies. Key highlights of this discussion included:

- **Sustaining Native Species Populations:** which calls for viability assessments, might serve as the mechanism for gathering necessary baseline data.
- **Inter-Agency Consultation:** The Seashore Commission should consult with agencies like the Department of Agriculture for specific species lists or conditions, similar to current Application Review Committee (ARC) reviews.
- **Administrative Solutions:** Questions regarding which specific agency will undertake the collection of baseline data are slated for resolution during a dedicated SRP Development Workshop in March 2026.

### Addressing Inland Development and Watershed Health

The working group also addressed the complex intersection of inland development and coastal health. Participants raised significant concerns regarding how development located far from the shore affects groundwater that eventually seeps into the Seashore Reserve areas, potentially impacting marine flora and fauna. To mitigate these impacts, the group called for policies that are:

- **Actionable and Measurable:** Any policy adopted for inland construction must be measurable and connect to concrete mitigation measures, similar to standards found in the Stormwater Management Manual.
- **Scientifically Grounded:** Members emphasized that policies must be supported by strong data to justify the disapproval or rejection of development permits.
- **Watershed-Focused:** Senator Sabina Perez advocated for a watershed-based approach that includes incentivizing "good development" and considering low-impact development as a practical path forward.

### Enhancing Environmental & Permitting Literacy

Educational and scientific literacy were identified as the primary tools for long-term stewardship of the reserve. The group discussed distinguishing between general community outreach and specific scientific research permits, such as those overseen by the Department of Agriculture's Division of Aquatic and Wildlife Resources (DAWR).

### Defining Jurisdictional Authority & Permitting Efficiency

To resolve long-standing jurisdictional confusion, the Plan will introduce a permitting matrix and visual guides delineating federal versus GovGuam authorities. This clarity is designed to accelerate emergency repairs—such as those at Fujita Beach—while ensuring all stakeholders understand the regulatory framework governing Guam's ecosystems. Furthermore, the proposal strengthens one of the draft policies by integrating 'permitting' into environmental literacy goals, recognizing that the permit process is the community's primary touch-point with the Seashore Reserve.

### Looking Ahead to 2026

The Bureau of Statistics and Plans (BSP) is set to modernize how materials are accessed by creating a central website page for all Seashore Reserve Plan materials. Following a check-in meeting in February 2026, the group will hold a Coastal Management Program Summit in March to review and revise a 2014 draft of the SRP. This collaborative effort ensures that Guam's Seashore Reserve Plan remains a living document, ready to address emerging threats like deep-sea mining and changing environmental conditions.





**Man, Land, and Sea  
Newsletter  
January 31, 2026**

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**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  
for more information.

\*limited supplies available per  
cleanup event.



## Guahan 2050 Sustainability Plan Public Hearings Notice:

In accordance with the requirements of 5 GCA § 1205 and Public Law 35-110, the Bureau of Statistics and Plans (BSP) is seeking public review and comment on The Guahan 2050 Sustainability Plan. Public hearings will be held on the following dates, times, and locations:

**Southern Hearing: Hågat Mayor's Office**

February 12, 2026 6:00 pm – 8:00 pm  
Residents can also join virtually through  
the following meeting link:  
<https://meet.google.com/bib-frbm-nqj>

**Northern Hearing: Dededo Mayor's Office**

February 25, 2026 6:00 pm – 8:00 pm,  
Residents can also join virtually through the  
following meeting link:  
<https://meet.google.com/vks-pnvm-nou>

The public is invited to attend and provide comment on The Guahan 2050 Sustainability Plan. Hard copies are available for review at the Bureau of Statistics and Plans, Office of the Director, 513 West Marine Corps Drive, Ricardo J. Bordallo Complex, Hagatna, 8:00 am-5:00 pm. Oral and written testimonies will be accepted at the hearing or may be submitted online to [gsp2050@bsp.guam.gov](mailto:gsp2050@bsp.guam.gov). Please include your name when submitting testimonies online.

For more information, visit: [bsp.guam.gov/gsp2050](https://bsp.guam.gov/gsp2050) or call 671-472-4201/2. Any persons needing special accommodations, please email [raymond.dungca@bsp.guam.gov](mailto:raymond.dungca@bsp.guam.gov) or call 671-475-9683.

