



Municipal Separate Storm Sewer System (MS4) Permit Residual Designation for Guam



Guam Stormwater Workshop

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What is an MS4 Residual Designation and Why You Should Know

What:

- A CWA National Pollution Discharge Elimination System (NPDES) permit program that regulates all discharges from **stormwater conveyance systems**

Why:

- New permit compliance requirements to address water quality impacts
- Stormwater Management Program implementation
- Improved resource protection



What Does an MS4 Look Like?



Photos courtesy of Horsley & Witten Group, CNMI DEQ, and Cora Bay Community Council



Who and What will the MS4 Permit Program Regulate on Guam?

Who

- Department of Defense MS4s
- Department of Public Works MS4s

What

- Stormwater runoff from urbanized areas, military facilities, parking lots, streets and roads
- Applies to all discharges primarily post construction
- Applies to all existing and future MS4 stormwater drainage systems, island wide.*

*Currently there are no regulated MS4s on Guam



Why a Residual Designation for Guam?

Section 402(p)(2)(E) and (6) of the Clean Water Act and NPDES regulations at 40 CFR 122.26(a)(9)(i)(D) provide for designation for NPDES permitting of stormwater discharges which:

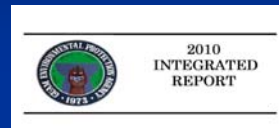
“contribute to a violation of a water quality standard, or is a significant contributor of pollutants to waters.”



Why a Residual Designation for Guam?

2010 Guam Integrated Report (GEPA) identifies:

- “Urban runoff is one of Guam’s most voluminous nonpoint source problems”
- “Soil erosion is one of the island’s most serious nonpoint source pollution sources”



2006 CNMI & Guam Stormwater Management Manual

- “Urban development has a profound influence on the quality of the waters on CNMI and Guam”
- “Water quality impacts are numerous and include sediment, nutrients, pathogens”





Why a Residual Designation for Guam?

Effects of Stormwater discharges on Guam:

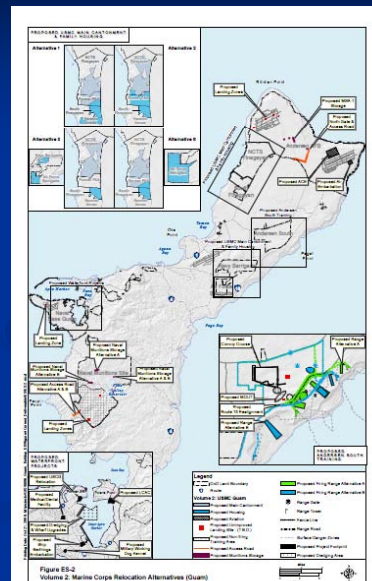
- Bacteria impairments at recreational beaches
- Damage to coral reefs from sediment, nutrients, and toxicants
- Toxics affecting fish and other aquatic organisms
- Northern Guam Lens Aquifer



Why a Residual Designation for Guam?

Anticipated Construction and Growth

- Military Buildup =
 - increased construction & population
- +79,000 during construction,
+33,000 permanently, 2010 DEIS





What will MS4 permits require?

- **Stormwater Management Program**
(6 minimum control measures)
 1. Public education/outreach
 2. Public involvement
 3. Illicit discharge detection and elimination
 4. **Construction site runoff control**
 5. **Post-construction stormwater controls**
 6. Good housekeeping/pollution prevention for municipal operations
- **Measurable goals for Minimum Control Measures**
- **Demonstrate compliance with existing TMDLs**



Minimum Control Measure: **CONSTRUCTION SITE RUNOFF CONTROLS**

- Local ordinance/regulatory mechanism requiring construction site erosion and sediment controls
- Procedures for construction site plan review
- Procedures for inspection and enforcement*
- Sanctions to ensure compliance
- Procedures for considering public information

Applies to sites = or > 1 acre disturbance

*Construction Industry Compliance Assistance Center www.cicacenter.org



Minimum Control Measure: POST-CONSTRUCTION STORMWATER CONTROLS

- Strategy for implementing combination of structural and non-structural BMPs.
 - Structural BMPs could include infiltration and vegetative practices.
 - Non-structural BMPs could include policies guiding growth away from sensitive areas.
- Local ordinance requiring post-construction BMPs
- Ensure long term operation and maintenance

Applies to sites = or > 1 acre disturbance



What are the Designation and Permit Procedures?

1. EPA signs proposed designation (Feb 8, 2011);
 2. Start of proposed designation comment period (Feb 9, 2011);
 3. EPA letters to Guam DPW and Navy requesting permit applications (Feb 9, 2011).
 4. EPA prepares and public notices draft NPDES permits.
 5. Comment period for designation closes when draft permit comment period(s) close
 6. EPA considers public comments and issues final NPDES permits for implementation.
- May be a year out before permits are final



Take Away

- New DOD and Guam DPW permits
- New requirements on post-construction discharges
- Additional requirements for construction discharges
- Improved aquatic resource and groundwater protection
- Clarifying stormwater control requirements now so they can be factored into Guam Buildup construction and renovation activities



Resources

- EPA Website
<http://cfpub.epa.gov/npdes/stormwater/munic.cfm>
- Construction Industry Compliance Assistance Center Website
www.cicacenter.org

