Stormwater Program Priorities for the USVI

Jennifer Zielinski, P.E.

Center for Watershed Protection

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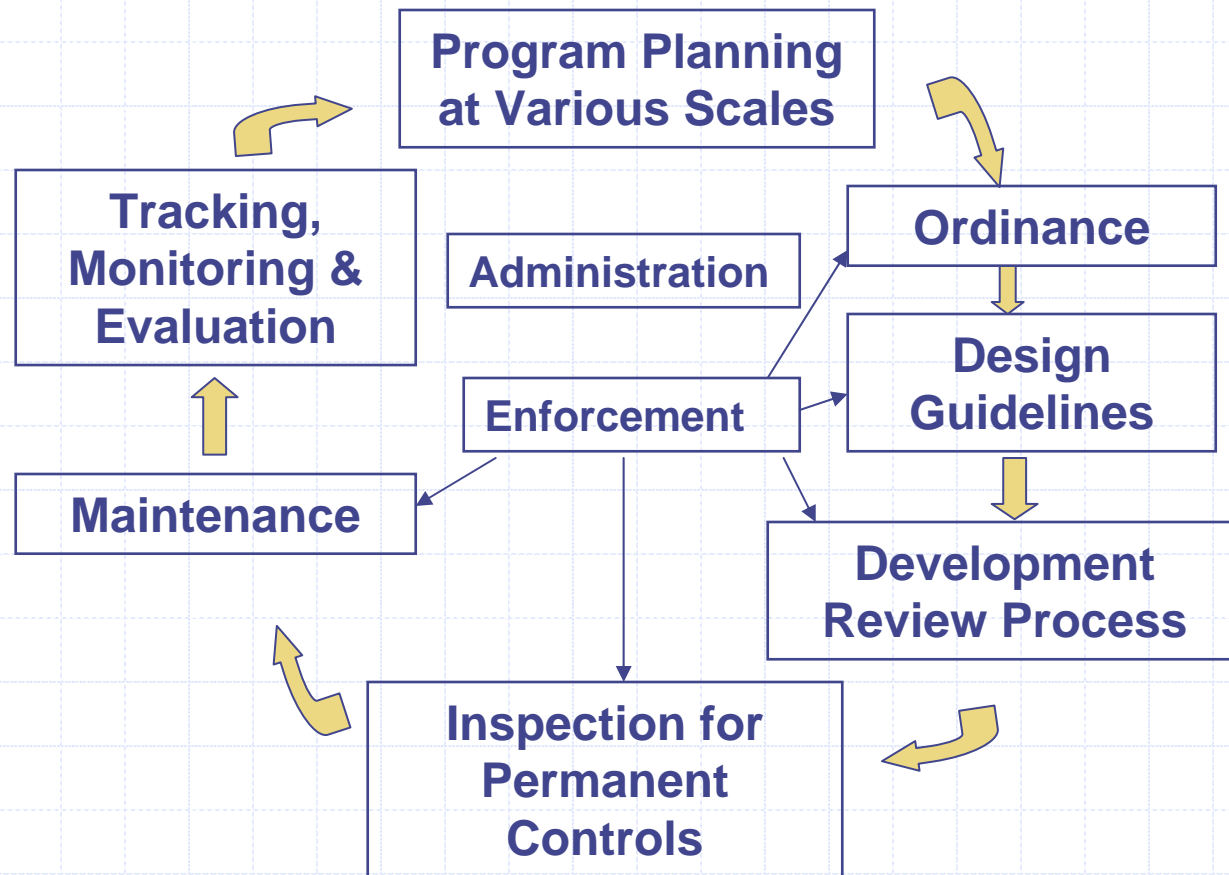
Tool #6 Stormwater Management

Stormwater is managed by practices that temporarily store runoff and remove pollutants.

NOT AS SIMPLE AS IT SOUNDS!

Types:

- Ponds
- Wetlands
- Infiltration
- Filtration
- Open Channels

It's not just about putting "BMPs" in the ground…

Program Planning at Various Scales

Ordinance

Administration

Design Guidelines

Enforcement

Development Review Process

Tracking, Monitoring & Evaluation

Maintenance

Inspection for Permanent Controls

Its not just about water quality...

Reducing Runoff

Recharging Groundwater

Improving Water Quality

Protecting Channels

Reducing Flooding

And there's more ways to do it than just structural practices

Site Design

Pollution Prevention

Treatment Practices

Discussion:

- Current state of the *practice* in USVI – what's going in the ground here?
- Current state of *program* in USVI – how are you managing what goes in the ground?
- What are the specific *challenges* you face in managing stormwater?
- What are the specific *objectives* for managing stormwater in the USVI?

Current State of the Practice in USVI

Current State of the Program in USVI

- Program plan
- Ordinance
- Design guidelines
- Development review process
- Inspection for permanent controls
- Maintenance
- Enforcement
- Tracking, monitoring & evaluation

Challenges in Managing Stormwater in the USVI

- Development patterns and pressures
- Existing development with no stormwater management
- No stormwater conveyance outside of the towns
- Three different islands
- Intra-island rainfall variations
- Steep terrain
- Limitations on material imports/exports
- Local expertise
- Staff resources

Some Possible USVI Stormwater Management Objectives...

- Treat rainfall as a resource (and runoff as a waste)
- Promote recharge rates to replenish groundwater resources
- Keep pollutants from entering groundwater
- Keep sediment and pollutants out of coral reefs
- Prevent serious floods

Questions to Consider as you Move Forward

- Which **hydrologic variables** do we want to manage?
- What are the primary stormwater **pollutants of concern**?
- Which management practices should be avoided because of their **environmental impacts**?
- What is the most **economical** way to provide stormwater management?
- Which stormwater management practices are the **least burdensome to maintain** with local budgets?
- What is the most effective **mix** of **structural** and **non-structural** management practices that can meet the local stormwater objectives?

Tomorrow

Elements of effective local programs

Adapting designs to the USVI