Benefits of Institutional Management Plans

Surface Water Wastewater Program
U.S. Army Center for Health Promotion and Preventive Medicine

The views expressed in this presentation are those of the author and do not reflect the official policy or position of the Department of Army, Department of Defense, or the U.S. Government.
Table of Contents

- Phase II Rule Overview
  - Minimum control measures

- IMP
  - Development steps
  - Pros and cons

- Conclusions
Regulatory Review

- Storm Water Phase II Rule passed to expand Phase I of the NPDES Program
- Phase II Rule covers
  - All small MS4s which serve <100,000 people
  - Within an urbanized area
  - Construction sites disturbing 1 – 5 acres
Regulatory Review

- Military installations specifically included in Phase II Rule

- What is the ultimate goal of Phase II Rule?
Phase II Minimum Control Measures

1) Personnel Education and Outreach
2) Public Involvement and Participation
3) Illicit Discharge Detection and Elimination
4) Construction Site Storm Water Runoff Control
5) Post Construction Storm Water Management
6) Pollution Prevention and Good Housekeeping
1) Personnel education and outreach requires information distribution

How can you reach a diverse audience?

- Distribute educational materials
- Publish periodic articles
- Develop partnerships with active installation communities
- Display posters in prominent locations

- Use published articles to address variety of topics
  - Pet waste control
  - Car care
  - Landscaping
  - Pesticide control
2) Public involvement and participation assigns tasks

What type of tasks are typical?

- Hand out fact sheets at a public event
- Establish a neighborhood storm water watch with a hotline number
- Sponsor a speaker for lunch sessions
- Hold a storm water slogan contest in the schools and for the general public
**POLLUTION**

**MAKES ME...**

**SEA SICK!**

*Keep storm drains clean for those downstream!*

*For further information, contact the installation environmental office at xxx-xxxx-yyyy.*

---

**TOXINS...**

**...TICK OFF TURTLES**

*Keep storm drains clean for those downstream!*

*For further information, contact the installation environmental office at xxx-xxxx-yyyy.*

---

**WASTE...**

**...RUINS MY TASTE**

*Keep storm drains clean for those downstream!*

*For further information, contact the installation environmental office at xxx-xxxx-yyyy.*
3) Illicit discharges require detection, elimination and prevention

- **Examples of illicit discharges**
  - Domestic and industrial wastewater
  - Auto fluids
  - Vehicle wash water
  - Fuel spills

- **Certain types of non-storm water discharges allowed**
3) How to detect/prevent illicit discharges?

- Perform storm water outfall assessment
- Perform illicit discharge/cross connection survey
- Promote illicit connection awareness at installation events
- Provide covers for storm drains in vulnerable spill areas
4) Construction site storm water runoff control

- Develop, implement and enforce construction site management program
- State regulations outline program requirements
- Sampling strategy may be required
4) Construction Site Management Program

- Develop written guidelines for reviewing E&SCPs
- Develop clear procedures for commencement of construction sites
- Establish inspection program for active construction sites
5) Post construction storm water guidelines meant to improve water quality

- Program requirements depend on State regulations
- Develop guidelines for development and implementation of BMPs
- Establish regulation/policy requiring post-construction BMP review
6) Pollution prevention and good housekeeping practices examined

- Implement Fats, Oil and Grease Management Plan
- Provide storm water training to Environmental and Military Officers
- Examine spill history at installation
<table>
<thead>
<tr>
<th>Minimum control measure implementation</th>
</tr>
</thead>
</table>

- Decide the best strategy for installation

- Minimum control measures must have
  - Numeric or narrative goals
  - Date estimates
  - Responsible persons

- Put in writing
IMP vs Phase II Rule

- Regulation-wise, IMP no different from regular Phase II Plan
- However…provides flexibility for implementation
- Addresses control and improvement of water quality
- Streamlines regulatory review and approval process for new development
Three components of IMP

- Step 1: Source Identification
- Step 2: Physical Site Evaluation
- Step 3: Management Program Development
Step 1: Source Identification

- Past, present and future activities evaluated
- Inventory storm water infrastructure (usually via GIS)
- Complete inventory of all existing BMPs
### Step 2: Physical Site Evaluation

- Detailed hydrologic analysis to determine hydrograph timing
- Storm water quantity determination
- Quality management evaluation
Step 2, cont: Physical Site Evaluation

- Identify areas of existing flooding
- Examine receiving channel conditions
- Identify areas where existing BMPs can be improved or new ones constructed
Step 3: Management Program Development

- Develop based on the previous minimum control measures
- Point where tailoring for each site can be effective
Step 3, cont: Management Program Development

- Should address at minimum
  - How to control storm water for existing and future conditions
  - BMP implementation
  - Interaction with the surrounding community
IMP Pros

- Storm water management is best controlled through an overall approach
- Phase II requirements are not easily applied – IMP offers alternative
- Streamlining regulatory review process
IMP Cons

- Initial implementation takes intense research and time
- Environmental office will have a larger role in E& SCPs
Conclusions

- Improve water quality through a holistic approach
- Allow for alternative measures to meet permit compliance
- Streamline approval process for new development
Questions?