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# Permitting Stormwater Discharges From Federal Facilities Construction Sites – An Overview

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# Topics For Today's Webcast

- History of the NPDES Stormwater Construction Program and Update
- Coverage and Who is Responsible for Coverage
- The Stormwater Pollution Prevention Plan
  - Site Considerations
  - Plan Development
  - BMPs and "Other Considerations"
- Tips for Federal Facilities

# History of the NPDES Stormwater Construction Program

- Large Construction  Requirements
  - Component of storm water "discharge associated with industrial activity" [FWPCA 402(p)(2)]
- Small Construction Requirements
  - Response to Ninth Circuit Court decision
  - Component of "other" storm water discharges, "to be regulated to protect water quality" [FWPCA 402(p)(6)]

# Construction General Permit Update

- EPA has issued a final 2008 Construction General Permit (CGP) that covers discharges of stormwater from certain construction sites
- Permit contains substantially the same terms and conditions as the 2003 CGP
- EPA will develop and issue an updated CGP that incorporates the provisions of the Effluent Guideline as soon as possible, but not later than July 2010

# What Permitting Options Are Available?

- Most States are authorized to implement the NPDES Program
- EPA is the Permit issuing authority for federal facilities in States and territories where there is no program delegation
- EPA's CGP is the umbrella permit in many areas, and serves as a template for many authorized states
- Applicant must apply for coverage by submitting a Notice of intent (NOI)

# When is a Stormwater Permit Required for Construction

- Land Disturbance of five or more acres (Large Construction Sites)
  - Clearing, grading or excavation
- Activities part of a larger common plan of development
- Requires permit coverage for (Small Constr. Sites):
  - Construction activity disturbing $\geq$ 1 acre and $<$ 5 acres
- Potential permit coverage for:
  - Construction activity that disturbs less than 1 acre of land may be designated based on water quality impact

# What is a Federal Facility

- A Federal Facility is defined as  any building, installation, land, etc., owned or leased by the federal government




# Who Needs to Apply for Permit Coverage?

- Operators must apply for coverage under EPA's Construction General Permit
- Operator is defined as:
  - Either the entity that has operational control over the construction plans and specifications, including the ability to make modifications to those plans and specifications (e.g., owner or developer of a project) or;
  - The entity that that has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a stormwater pollution prevention plan (SWPPP) – e.g., general contractor

# Who Signs the Notice of Intent Form?

- EPA requires that a company officer or high ranking official sign the NOI form
- Federal Agency – a certifying official is:
  - High Ranking Officer or ranking elected official
- Principal executive officer at a federal agency includes:
  - Chief Executive Officer of the Agency, or
  - Senior Executive Officer having responsibility for the overall operations of a principal geographic unit of the Agency

# If There are Multiple Operators at a Site, Who Responsible for Permit Compliance?

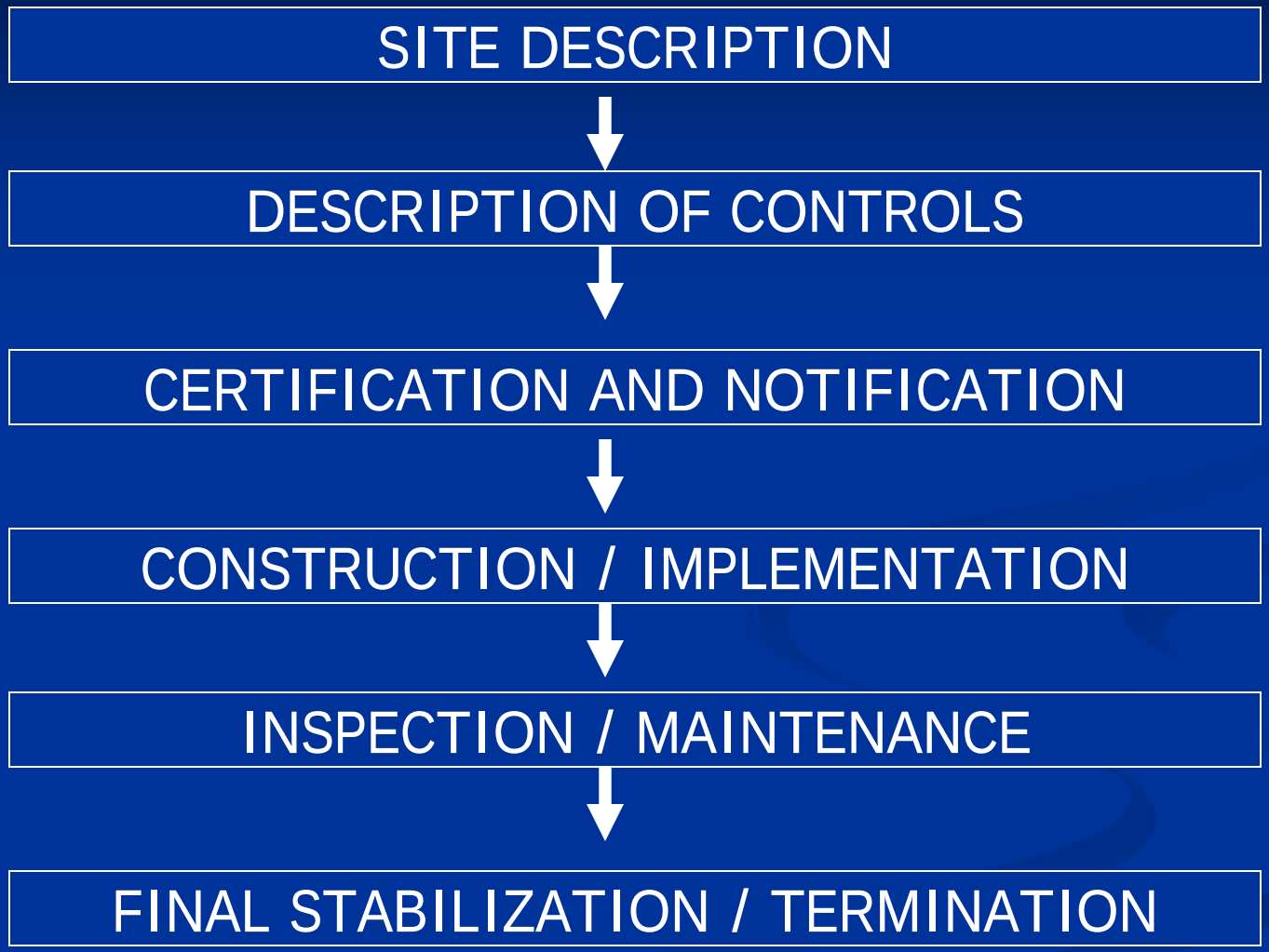
- All Parties are responsible for permit compliance
- During inspections, the activities of all operators are under consideration for compliance evaluation
- The SWPPP must clearly indicate how responsibilities are divided

# The SWPPP

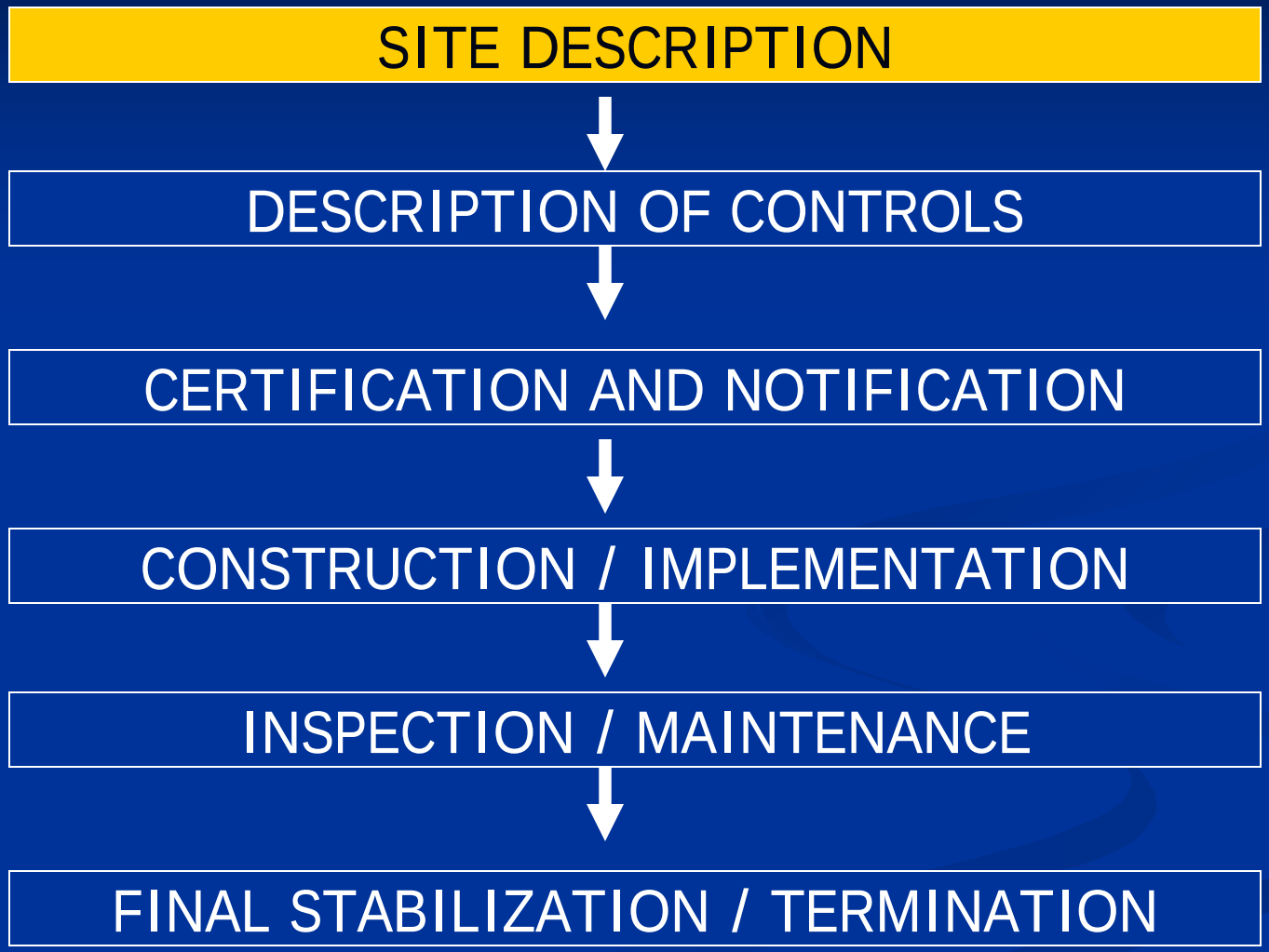
- A SWPPP is a detailed planned that:
  - Identifies potential sources of stormwater pollution
  - Describes practices to reduce pollutants and the volume of stormwater discharges
  - Identifies procedures the operator will implement to comply with the terms and conditions of an NPDES CGP
  - Descrbes the site and each major phase of the planned activity
  - Outlines the roles and responsibilities of contractors and subcontractors
  - Documents changes and modifications to the constructions plans and associated stormwater pollution prevention activities


*This is Not a SWPPP!*

# Storm Water Pollution Prevention Plan



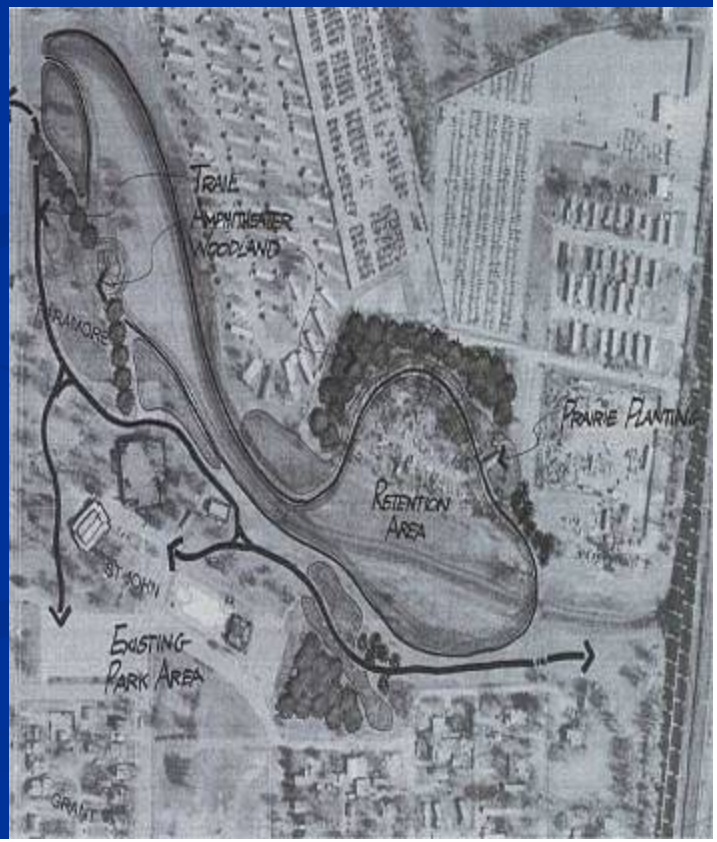
# Storm Water Pollution Prevention Plan



# Site Description/Site Map

**Get Started By Getting to Know the Site**

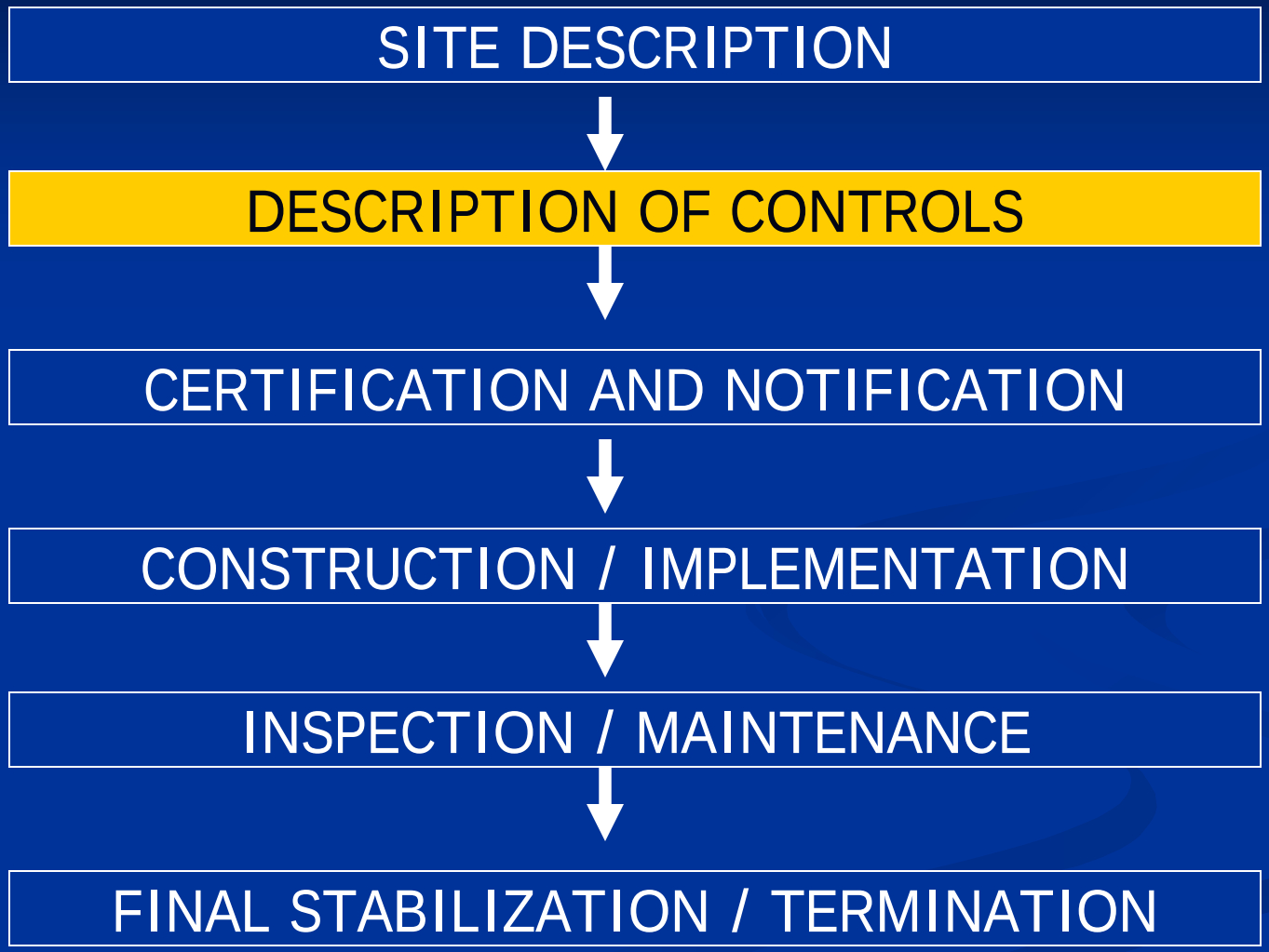
- Describe the Site
- Prepare the Site Map
- Begin to Think about Controls



# Site Description

- Nature of the Activity
- Sequence of Events
- Estimated Area of Site
- Total Disturbed Area
- Runoff Coefficient
- Existing Soil and Water Data

# Storm Water Pollution Prevention Plan



# Selection and Description of Controls

- During Construction
  - **Sediment and Erosion Controls**
  - **Control of Non-Storm Water Discharges**
  - **Other Controls**

- Post Construction Control Measures
  - **Storm Water Management Controls**
    - **Proprietary and permanent structures**
    - **Green Infrastructure/Low Impact Development BMPs**
      - **Locations and types of controls**

# Selecting Storm Water Controls

**<u>Before</u> Selecting Controls:**

- Know Applicable State and Local Requirements
  - Sediment and Erosion
  - Storm Water Management
  - Sanitary Waste Disposal
- Incorporate them into the Plan

# Key Elements to Consider During Construction

- Plan for Minimal Land Disturbance
- Consider Site Conditions
- Prevent Run – on
- Slow Down Runoff
- Stabilize Soils
- Trap sediment

# Selecting Sediment and Erosion Controls

- Erosion Controls (primary protection)
  - Minimize disturbed area and protect natural features
  - Phase Construction activities to limit exposure period
  - Control stormwater flowing onto and through the project
  - Stabilize soils promptly with seed, mulch, etc.
  - Protect slope to prevent gullying
- Sediment Controls (the second line of defense)
  - Protect storm drain inlets
  - Establish perimeter controls
  - Retain sediment on-site & control dewatering practices
  - Establish stabilized construction exits
  - Inspect and maintain controls

# Non-Storm Water Discharges

- Identify Any Non-Storm Water Discharges
- Identify Controls

# BMP – Non-Storm Water: Dewatering Operations

- Use where groundwater or accumulated precipitation will be discharged from site
- Addresses sediment only
- Notify proper state authority if pollutant other than sediment is present
- Must comply with applicable permits

# BMP – Non-Storm Water: Illicit Connection/Illegal Discharges

- May be in liquid or solid form
- Refers to discharges and dumpings caused by parties other than contractor
- Inspect site prior to start of project
- Proceed with caution

# BMP – Non Storm Water: Vehicle and Equipment Fueling

- Fuel on site only if impractical to go off site
- Use a designated area
- Clean up materials and spill kits are available
- Protect fuel areas from run-off and run-on

# Other Controls

- Offsite Vehicle Tracking
- Material Management
- Construction Wastes
- Sanitary Wastes

# BMP – Stabilized Construction Entrance/Exit

- If aggregate used place over geotextile fabric 12 in. deep
- Design for heaviest equipment
- Limit number of exits/entrance
- Require their use

# BMP – Waste Management: Material Delivery and Storage

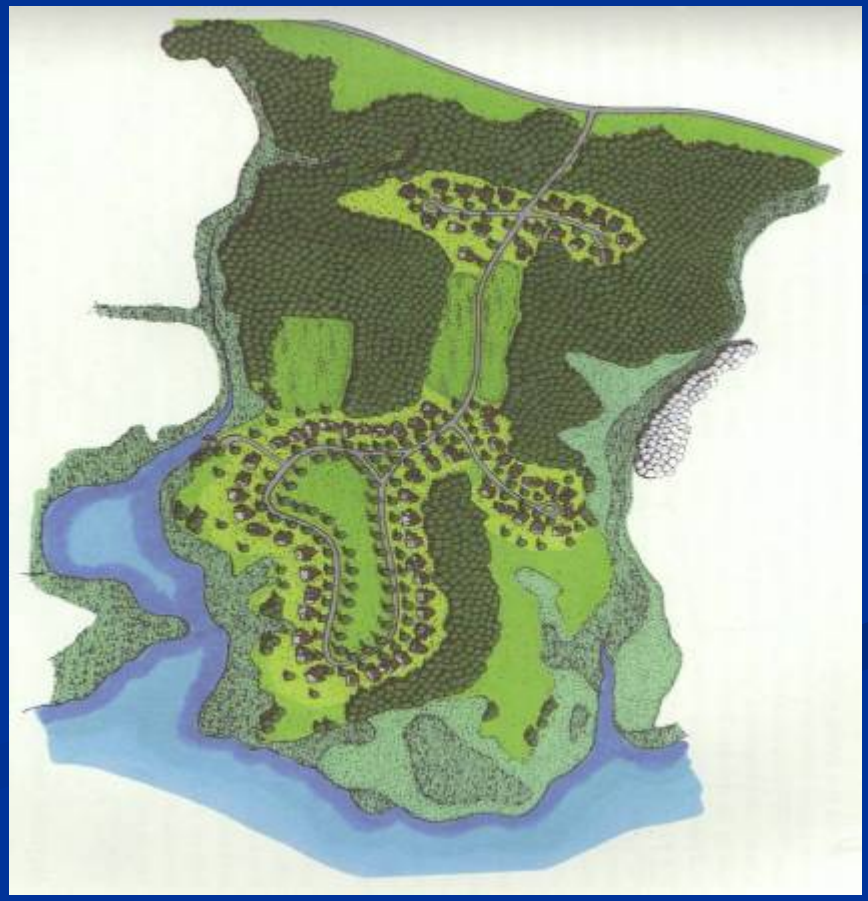
- Spill containment volume should be 1.5 times the volume of all containers and be impervious to the materials for 72 hours
- Substances listed in 40 CFR Parts 110, 117 and 302 require containment
- Provide cover during non-working days and prior to rainfall events

# BMP – Waste Management

- Locate sanitary facilities away from storm drains, watercourses
- Secure if subject to high winds
- Facility should be inspected weekly

# Managing Storm Water After Construction

- Lessen Impact of Development
  - Remove Pollutants
  - Slow Down Runoff



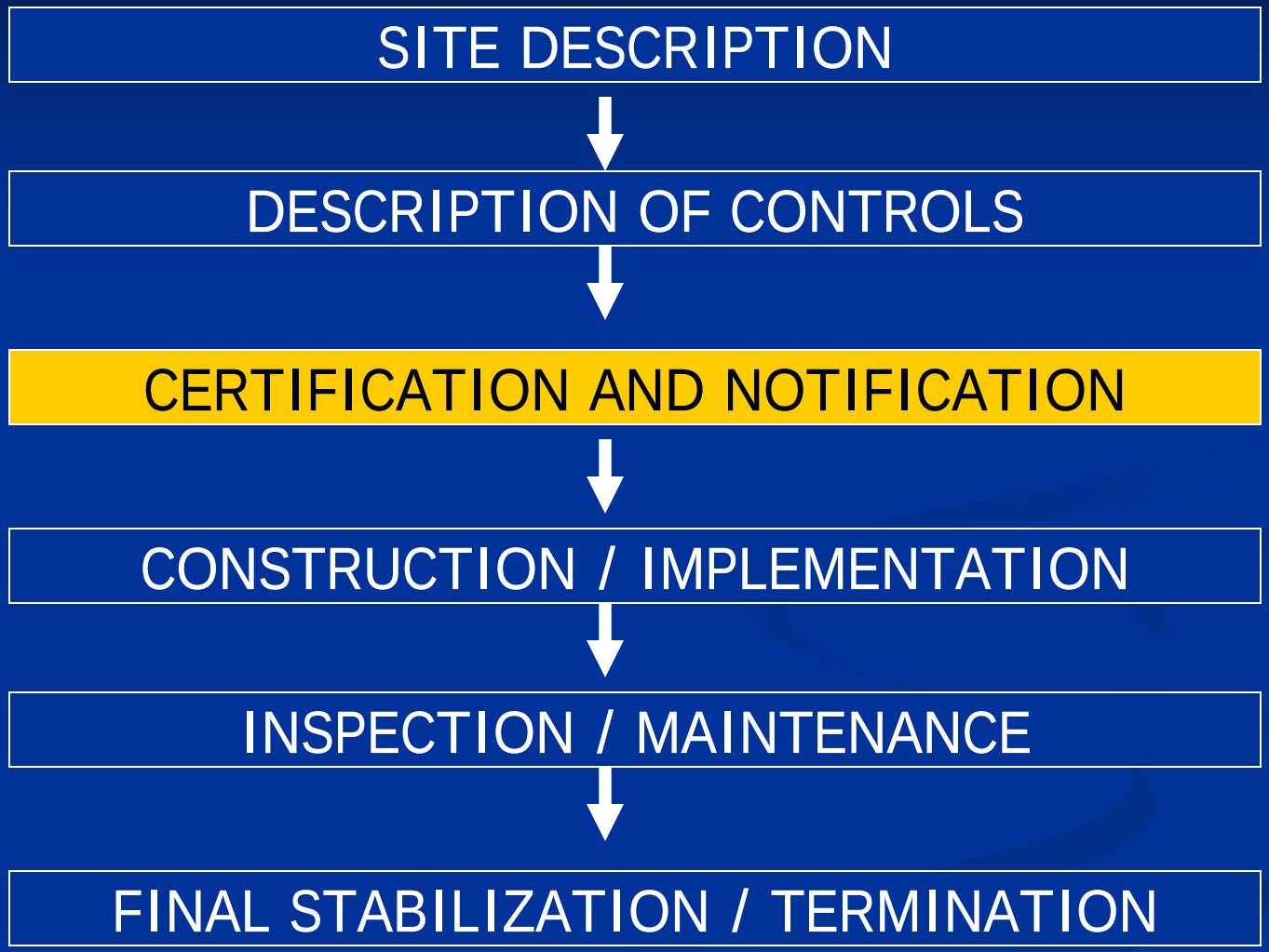
# Managing Storm Water After Construction – Post Construction Considerations

- Tree and Canopy Programs - New & Retrofit
  - One tree can reduce stormwater runoff by 13,000 gallons per year
- Use of Biofiltration and Bioretention practices
  - Used to filter and infiltrate runoff from impervious areas
- Use of permeable and porous pavements and concretes
- Green Roofs

# Summarizing Controls

- During Construction
  - Sediment and Erosion Controls
  - Control of Non-Storm Water Discharges
  - Other Controls
- Post Construction Control Measures
  - Storm Water Management Controls

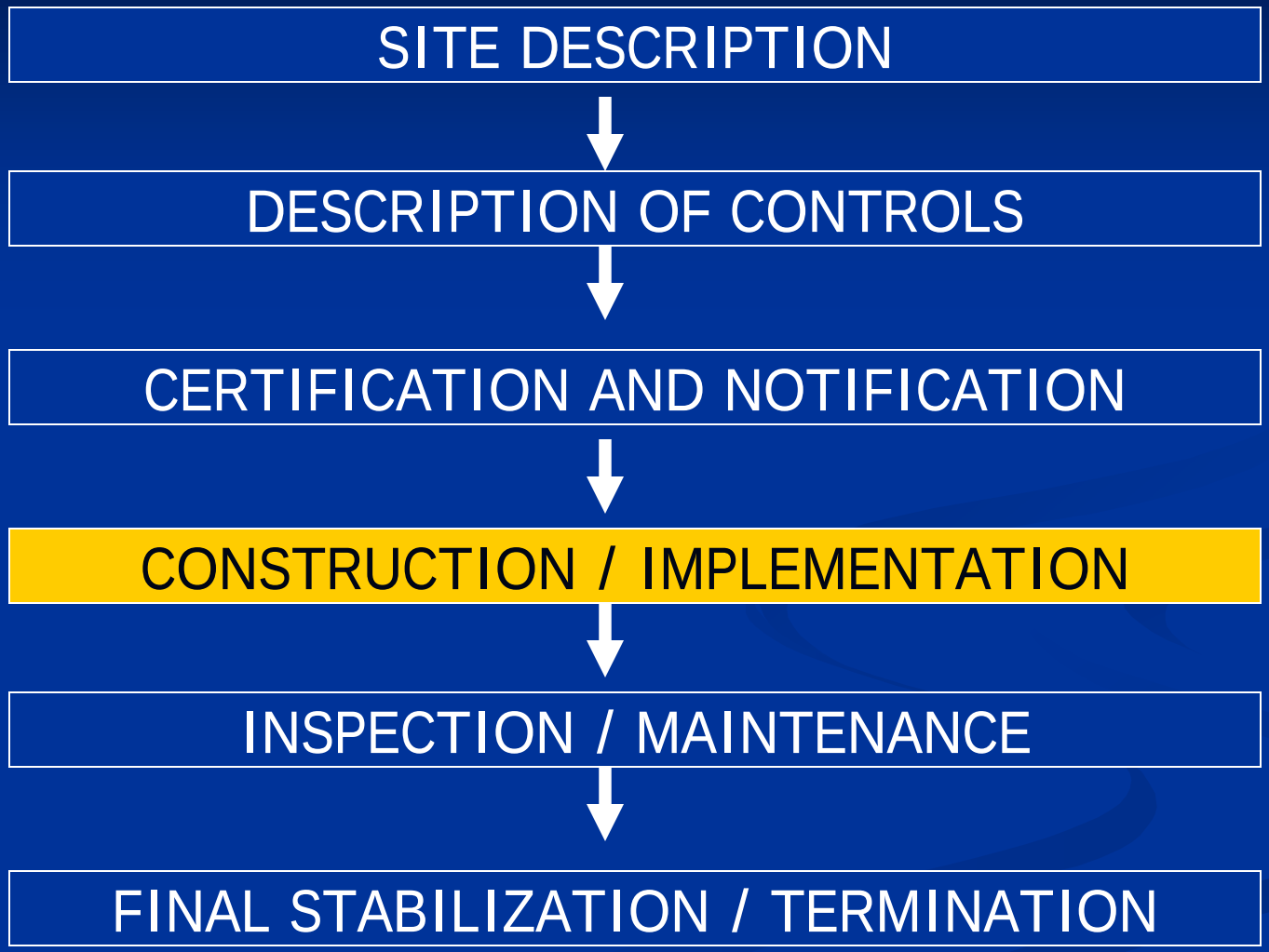
# Storm Water Pollution Prevention Plan



# Put The Plan Together

- Write the Plan
- Sign the Plan
- File the Permit Application (NOI)
- Begin Construction / Keep the Plan On Site

# Storm Water Pollution Prevention Plan

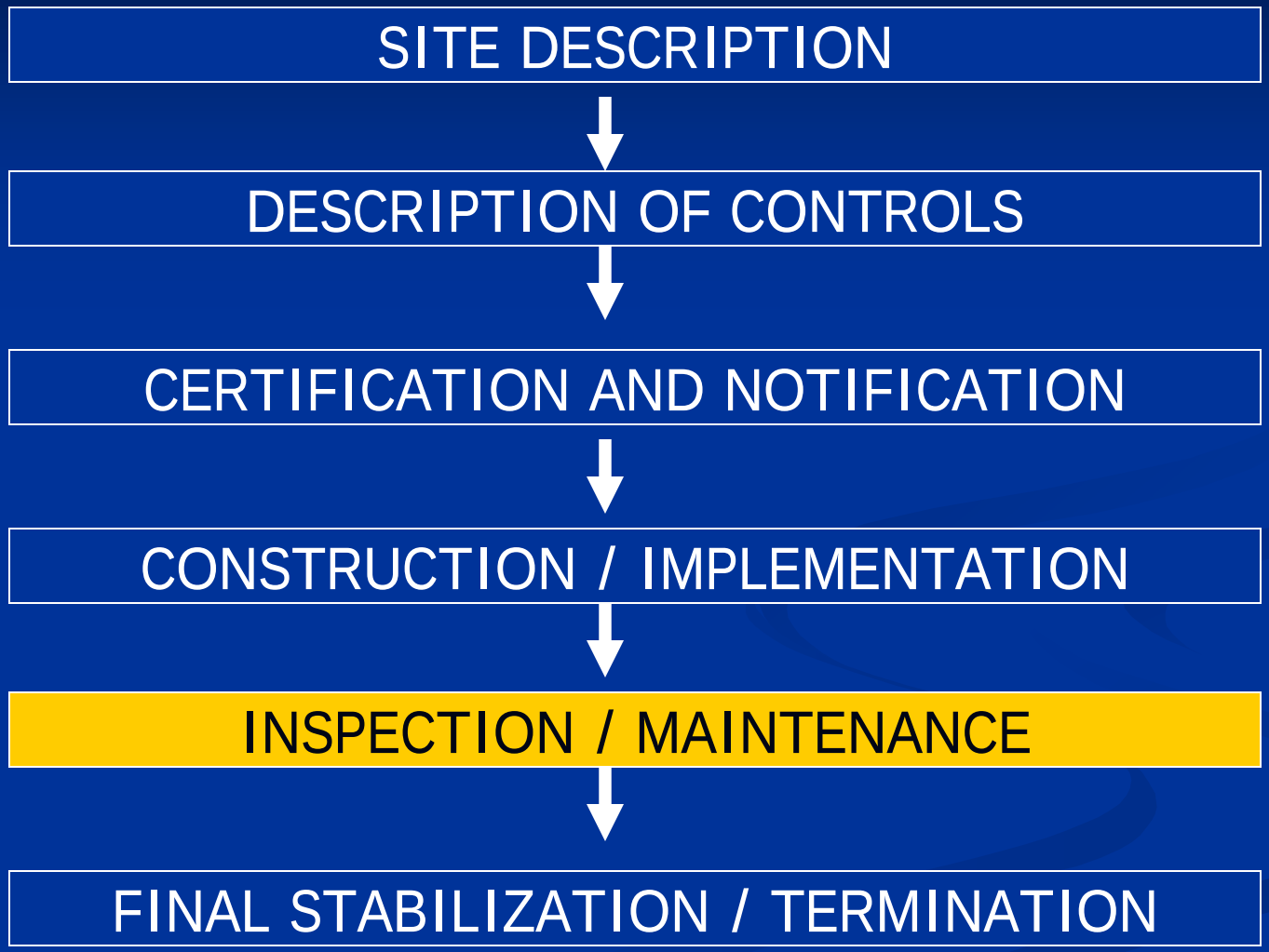


# Construction/Implementation

## Begin Construction/Schedule Activities

- Install Controls Carefully
- Clear and Grade Only as Needed
- Plan Construction Activities Around Controls

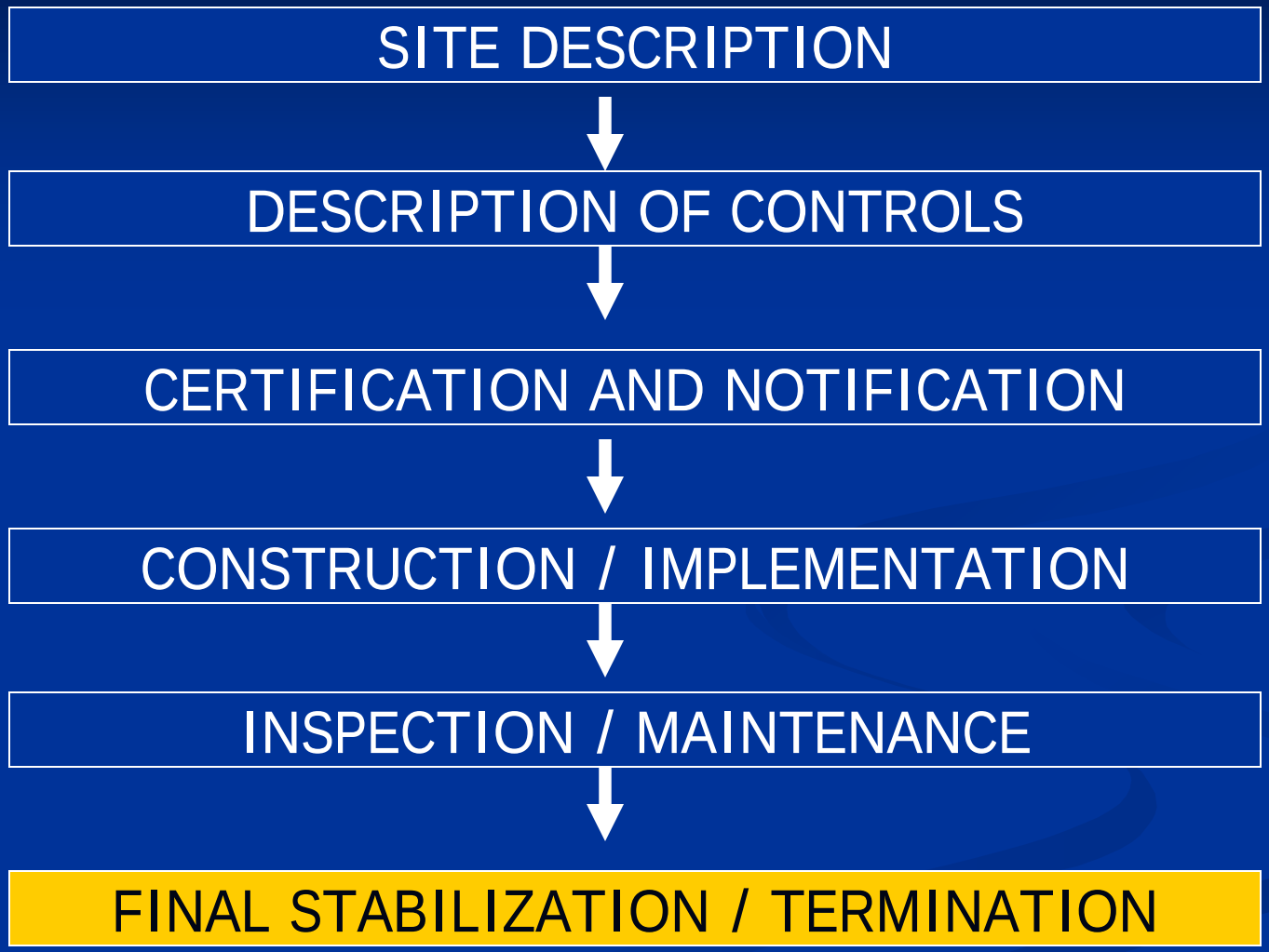
# Storm Water Pollution Prevention Plan



# Keep the Plan Working: Make Sure Controls Work

- Inspections
  - Conduct Them Yourself or via "qualified personnel"
  - Set Schedule
- Maintenance and Repairs
  - Perform Promptly
- Recordkeeping
  - Be thorough and keep current
- Training

# Storm Water Pollution Prevention Plan



# Final Stabilization/Termination

## Finish the Job

- Final Stabilization
- Site Clean Up

# Developing A Construction Storm Water Pollution Prevention Plan

- Site Description
- Site Map
- Description of Controls
- Inspection and Maintenance
- Certification Statement

# Tips for Federal Facilities

- Provide Contractors with any relevant information or factors which may be affected by the project
- Include stormwater provisions in federal contracts for construction projects
- Update the SWPPP as needed
- Train staff to recognize problems at construction sites
- Maintain effective communication with contractors

# Contact Information

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# QUESTIONS?