



Caltrans Local Assistance

RESIDENT ENGINEER ACADEMY

Module 10 Environmental Stewardship & Water Pollution Control

January 2025

Environmental Stewardship

Encompasses...

- People & Animals
- Individuals & Communities
- Historical Locations
- Land Use
- Quality of: Air / Noise / Water
- Transportation Patterns

Environmental Stewardship: Objectives

Be able to...

- Name the laws that mandate protecting the environment
- List the duties an RE must perform to comply with these laws
- Document compliance

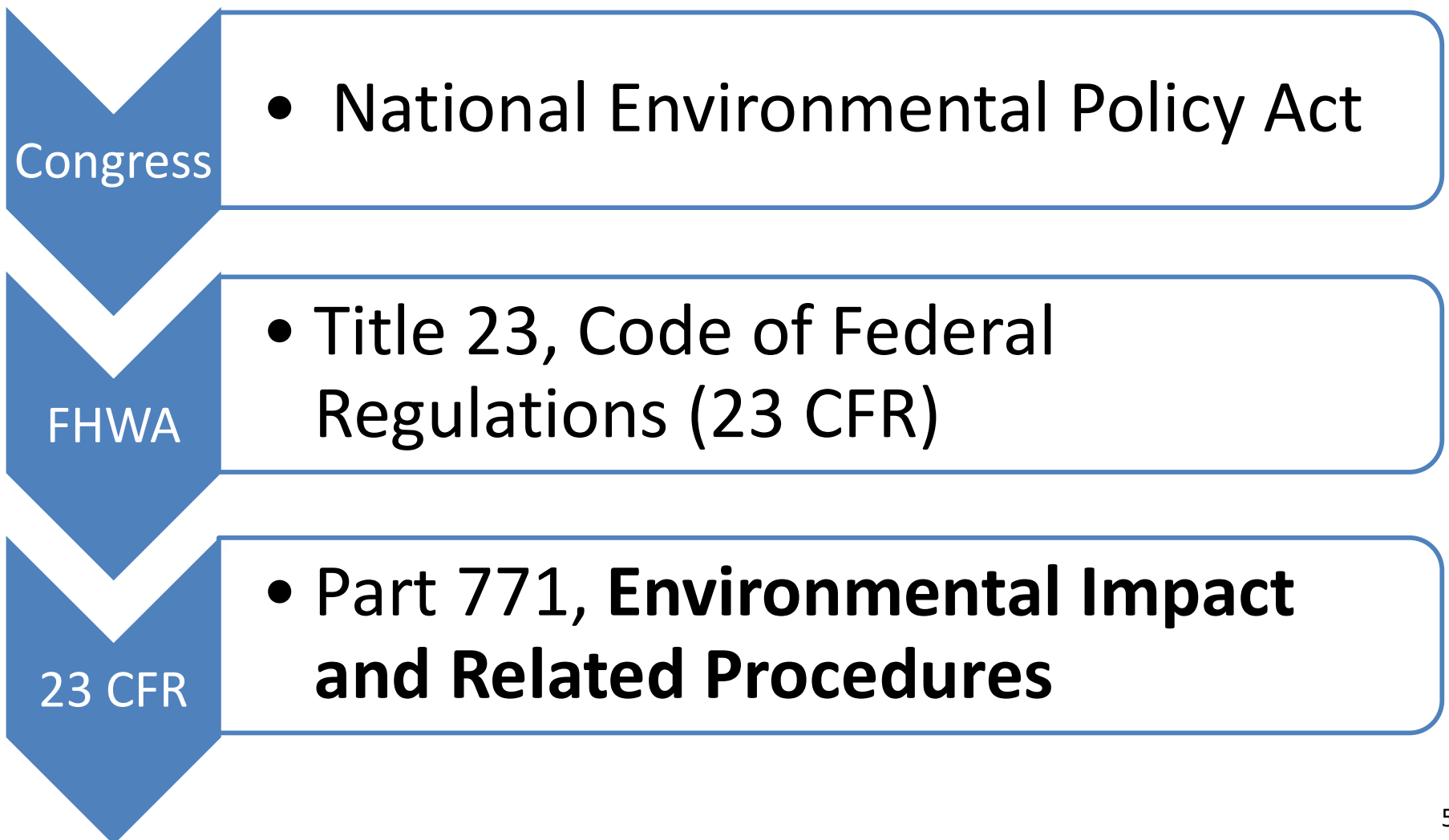
Environmental Stewardship: Federal Law

National Environmental Policy Act (NEPA) of 1969

“...to prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man...”

Federal Law

The Relationship between FHWA and NEPA



Federal Law

NEPA Mandated the Federal Agencies to:

- **Consider** potential environmental consequences of proposed project
- **Document** the analysis of those consequences
- Allow for **public to comment** prior to implementation

Federal Law

National Environmental Policy Act (NEPA)

The 3 Types of Project Environmental Documents

Categorical Exclusion (CE)

=>

No Determination Needed

Environmental Assessment (EA)

=>

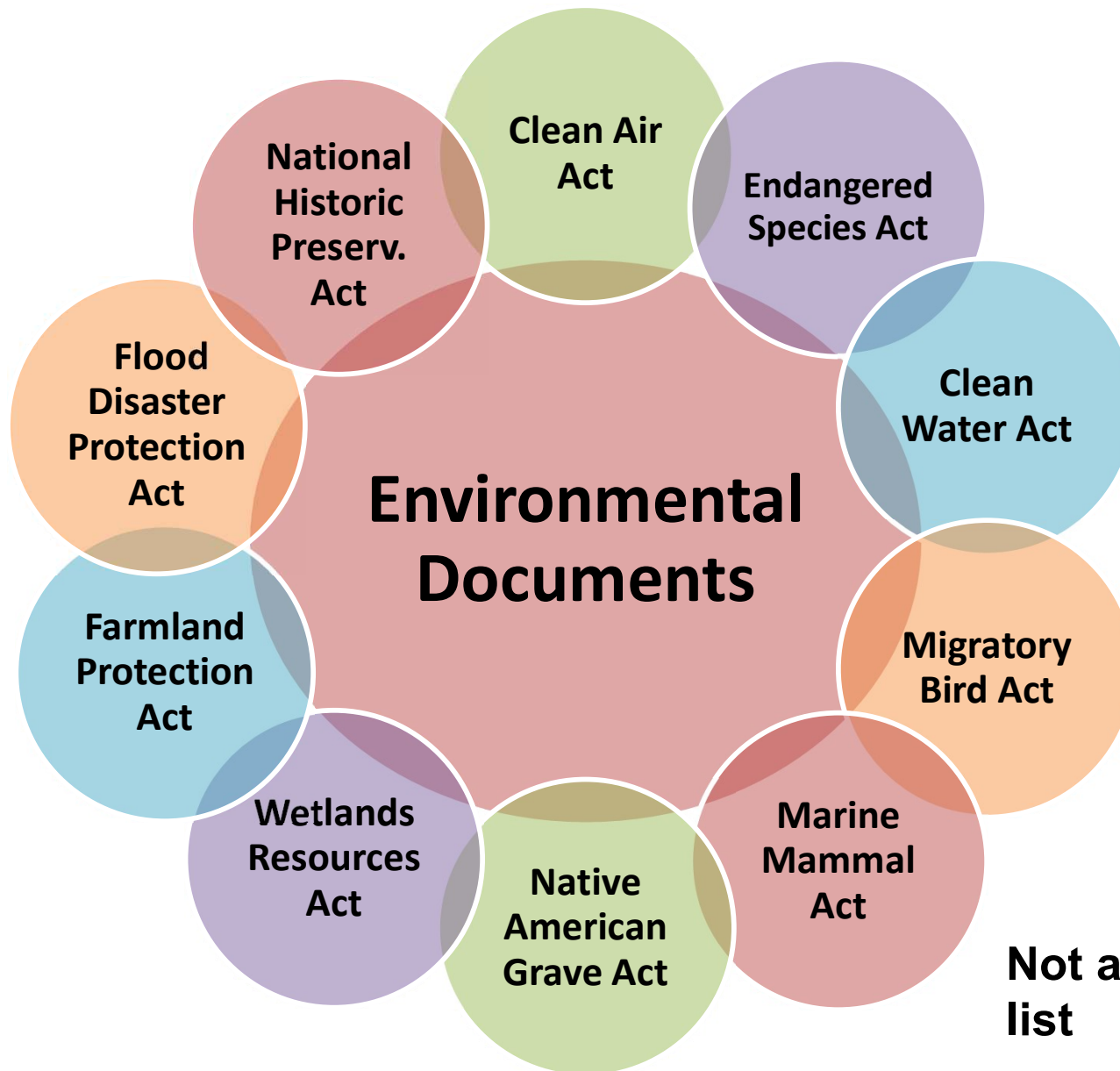
FONSI
or
further study

Environmental Impact Statement (EIS)

=>

Record of Decision (ROD)

Federal Law



Not an all-inclusive list

Federal Law

*It shall be the **responsibility of the agency** to ...ensure that the project is constructed in accordance with and incorporates all committed environmental impact mitigation measures listed in approved environmental documents...*

23 CFR 771.109(d)

Local Assistance Procedures Manual (LAPM)

LAPM

Chapter 6 Environmental Procedures

6.1 Roles and Responsibilities

6.2 An Overview of the Environmental Process

6.3 Mitigation and Construction

Local Assistance Procedures Manual

The local agency is responsible for ensuring that mitigation commitments are...

- Incorporated into the PS&E
- Implemented during construction
- Documented!
- Maintained as required

LAPM 6.1 Roles and Responsibilities, Local Agency

Local Assistance Procedures Manual

The local agency will obtain all necessary permits *prior to advertisement* for construction.

LAPM 6.2 An Overview of the Environmental Process – CE/EA/EIS
LAPM 6.3 Other Considerations, Permits

Local Assistance Procedures Manual

The local agency must certify that all required mitigation is included in the PS&E.

LAPM 6.3 Mitigation and PS&E

The local agency must document and certify that all environmental commitments have been completed.

LAPM 6.3 Mitigation and Construction

Local Assistance Procedures Manual

Environmental Commitment Record (ECR):

1. Record each environmental commitment made
(PS&E stage)
2. Specify how each commitment will be met
(PS&E stage)
3. Document the completion of each commitment
(Construction stage)

RE Responsibilities Pre-Construction

- Verify the environmental documents and permits are all in the project file (see ECR – Environmental Commitment Record)
- Confirm all mitigation measures shown on the environmental docs and permits made it into your contract (see BO – Biological Opinion, MOA – Memorandum of Agreement, and Permits, etc.)
- Document as mitigation measures are completed

Local Assistance Procedures Manual

Local Assistance NEPA Permits & Environmental Commitment Record

Project Name	Alexander Avenue Bridge Retrofit/Rehabilitation Project	Name of Local Agency	City of Larkspur
Federal Aid Number	STPLZ 5166 (004)	Local Agency Contact and Phone	Hamid Shamsapour
Project Description	Seismic retrofit and repair of Alexander Avenue Bridge located in the City of Larkspur, including abutment retrofit, construction of an infill wall, jacket columns and caps and repair work.		

PERMITS REQUIRED	DATE OF PERMIT	DATE RECEIVED BY CALTRANS
Section 401 Water Quality Certification		
Section 404 Nationwide Permit		

NOTE: This following table is intended as a summary guide to environmental commitments. It does not replace or ~~supercede~~ any environmental commitments made in technical studies or correspondence prior to NEPA clearance. If there are any discrepancies between this table and technical studies/correspondence then the technical studies/correspondence take precedence

Task and Brief Description	Document	Page	Timing/Phase	Specific Action(s) Taken to Comply with Task	Local Agency Certification of Task Completion		Remarks
					Initial	Date	
Cultural Resource Commitments							
The Plans must be reviewed by, or under the direct supervision of, an architectural historian with the requisite experience	HPSR CE	8 2	PSE				
Air Quality Commitments							
Do not burn material to be disposed of	AQ Memo	9	Constr				
Use non-potable water for dust control (from Caltrans SS)	AQ Memo	9	Constr				
All active construction areas watered at least	AQ Memo WQ Memo	10 1	Constr				

Local Assistance Procedures Manual

Sample ECR page 2

Task and Brief Description	Document	Page	Timing/ Phase	Specific Action(s) Taken to Comply with Task	Local Agency Certification of Task Completion		Remarks
					Initial	Date	
Temporary silt fence will be used and maintained as a linear sediment barrier.	Water Quality Memo	1	<u>Constr</u>				
Temporary Erosion Control (Netting) will be applied for areas that have high erosion potential, such as the slopes adjacent to the multi-use path below the bridge	Water Quality Memo	1	<u>Constr</u>				
Traffic Commitments							
During the two month bridge closure, a traffic detour with construction signing, advance warning signing, and public outreach efforts will be implemented.	Traffic Memo	1	<u>Constr</u>				
4(f) Commitments							
Prior to construction, a temporary construction zone would be established which does not interrupt trail access along the multi-use path	4(f) Memo	4,5,9	<u>Pre-Constr/ Constr</u>				

RE Responsibilities Pre-Construction

If required by your environmental docs or permits

- Confirm Inspector/construction crew trainings held
- Verify ESA staging areas are fenced
- Approve biological monitors

RE Responsibilities Pre-Construction

If required by your environmental docs or permits

- Perform preconstruction surveys
- Relocate plants
- Take photographs
- Complete reports

RE Responsibilities Mid-Construction

If required by your environmental docs or permits

- Confirm operations comply with permit dates
- Confirm contractor adhering to daily time restrictions

RE Responsibilities Mid-Construction

If required by your environmental docs or permits

- Verify archeological or biological monitors are present
- Verify biological surveys are continuing as required throughout operations

RE Responsibilities Mid-Construction

If required by your environmental docs or permits, verify...

- Approved hauling routes are used
- Borrow and disposal site requirements are followed

RE Responsibilities Mid-Construction

If required by your environmental docs or permits, verify...

- Dust control measures are implemented
- Daily clean up and garbage disposal occurs

RE Responsibilities

Pre, Mid, and Post - Construction

Document Environmental Mitigation Commitment Compliance throughout the project!

File:

- Letters approving biological monitors
- Invoices supporting payments made to contractor for water quality testing

RE Responsibilities

Pre, Mid, and Post - Construction

Document Environmental Mitigation Commitment Compliance throughout the project!

- Sign in sheets from required crew trainings
- Photos of ESA fencing
- Daily reports documenting mitigation work

RE Responsibilities Post-Construction

If required...

- Confirm all monitoring reports and post-construction mitigation report(s) were submitted to permitting agencies
- Prepare additional copies to be included with the final report/voucher submitted to Caltrans

Remember...

- **NEPA stands for National Environmental Policy Act**
- **NEPA is U.S. Law established by Congress (1969)**
- **All federal aid projects will have 1 of 3 types of environmental documents:**
 1. Categorical Exclusion with no EA and no EIS is required
 2. Environmental Assessment with FONSI or further study
 3. Environmental Impact Statement with ROD
- If a mitigation measure listed in the CA Dept. of Fish & Wildlife Permit for your project is missing in contract plans and specifications, then the RE must write a Change Order.
- Documenting the performance of environmental commitments is efficiently completed prior to the work being completed.

Module 10

Water Pollution Control

Water Pollution Control: Objectives

Be able to ...

1. Name the federal and state laws that mandate the prevention of water pollution
2. Understand the basic requirements of a WPCP or SWPPP
3. Implement water pollution control practices
4. List required WPC documents

Water Pollution Control: Federal Laws and Regulations

Clean Water Act (CWA) of 1972

...to restore and maintain the...integrity of the nation's waters by preventing ...pollution sources, ... and maintaining the integrity of wetlands.

Federal Laws and Regulations

Clean Water Act (CWA) of 1972 and 1978

Unlawful to discharge any pollutant from
a point source into navigable waters,
unless a permit was obtained.

Federal Laws and Regulations

Clean Water Act (CWA) 1987 Amendment

Unlawful to discharge any **Storm Water** into navigable waters, unless a permit was obtained.

Federal Laws and Regulations

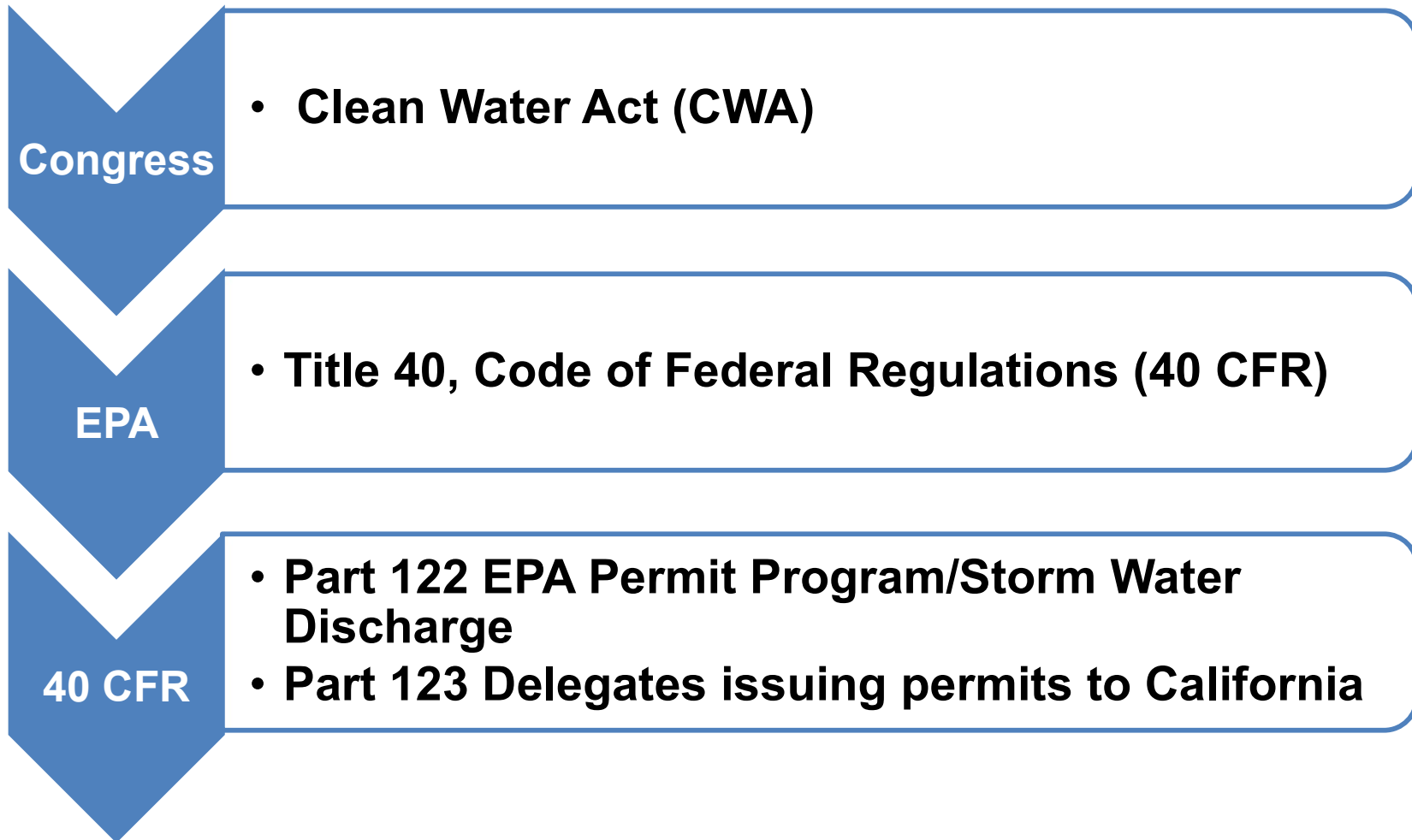
Which permit is required by the Clean Water Act?

NPDES:

**National
Pollutant
Discharge
Elimination
System**

Federal Laws and Regulations

The connection between CWA, EPA and RE



Federal Laws and Regulations

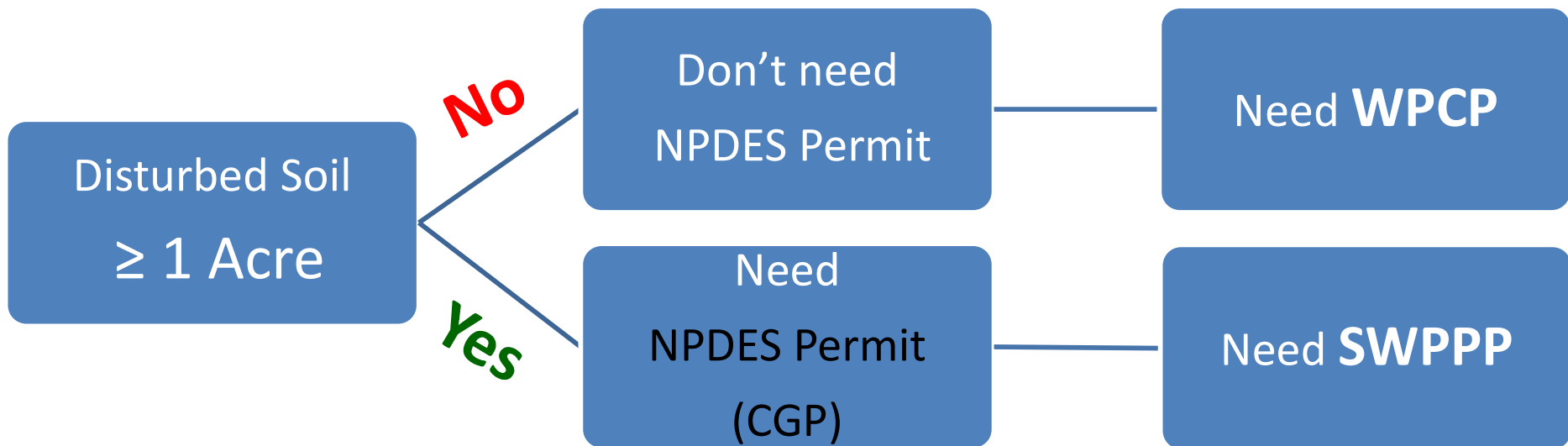
Which projects need a NPDES Permit?

Projects whose construction activities disturb one (1) or more acres of soil.

- Clearing**
- Grading**
- Excavation**
- Stockpiling**

Federal Laws and Regulations

The Two Levels of Water Pollution Control:



- **Water Pollution Control Program (WPCP)**
- **Storm Water Pollution Prevention Plan (SWPPP)**

Water Pollution Control: NPDES

To obtain coverage under the NPDES/CGP, the discharger must:

1. File Permit Registration Documents (PRDs)
 - a) Notice of Intent (NOI)
 - b) Storm Water Pollution Prevention Plan (SWPPP)
 - c) Other docs required
2. Pay permit fee

NPDES Webpage

SMARTS = Stormwater Multiple Applications and Report Tracking System

The screenshot shows the SMARTS login interface. At the top, there is a navigation bar with the California Water Boards logo and links for About Us, Contact Us, Subscribe, and Settings. Below this is a secondary navigation bar with icons for Board, Programs, Drinking Water, Water Quality, Water Rights, Notices, Water Boards, and Search. The main content area features a banner for the SMARTS system and a login form. The login form includes fields for User ID and Password, Login and Create Account buttons, and a link for users who need to unlock, reset their password, or forgot their user ID. Below the login form, there are four icons representing different resources: Public User Menu, Permit FAQs, SMARTS Resources, and Email SMARTS Help.

Browser Requirements: SMARTS works best with Microsoft Edge. The use of other browsers may cause unexpected errors.

SMARTS will be undergoing maintenance on Wednesday, June 20, 2024, starting at 5:00 pm. It is anticipated to last until 7:00 pm. Please refrain from using SMARTS during the maintenance period.

- [Stormwater Home](#)
- [Caltrans](#)
- [Construction](#)
- [Contacts](#)
- [Databases](#)
- [Historical](#)
- [Industrial](#)
- [Historical](#)
- [SMARTS Resources](#)
- [STORMS](#)
- [Training](#)

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The California Water Boards include the State Water Resources Control Board and nine Regional Boards

<https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml>

Federal Laws and Regulations

Who monitors Water Pollution Control (WPC) and issues NPDES permits in CA?

- State Water Resources Control Board (SWRCB)
- Regional Water Quality Control Board (RWQCB)

Water Pollution Control: Implementation

WPC (WPCP & SWPPP) must be implemented at:

- Project site
- Support facilities
 - Staging areas
 - Storage yards
 - Mobile operations
 - Batch plants for PCC and HMA
 - Crushing plants for rock and aggregate
 - Haul roads

Implementation

SWPPP or WPCP

Before the work starts:

- Designate staff as storm water inspectors
- Review contract and RE file
- Discuss WPC requirements at pre-job

Implementation

SWPPP or WPCP

Before the work starts, review and accept the contractor's SWPPP or WPCP.

The contractor must:

- Provide a WPC manager
- Conduct water pollution control training
- Monitor, inspect, correct WPC practices

Implementation

SWPPP or WPCP

Before the work starts, ensure that the contractor:

- Includes support facilities in plan
- Submits Notice of Intent (NOI) approved by the RWQCB
- Trains employees

Implementation

SWPPP or WPCP

- Verify copy of plan is on site
- Ensure BMPs (Best Management Practices or Water Pollution Control Practices) are in place as required
- Confirm qualifications of the Contractor's WPC Manager:

SWPPP  QSD (Qualified SWPPP Developer)

WPCP  QSP (Qualified SWPPP Practitioner)

Implementation

SWPPP Only

- Confirm a Waste discharge **ID Number** is issued prior to start of project
- Storm Water **Annual Report** is submitted (Sept.)

Implementation

During construction, ensure the contractor:

- Performs inspections
- Submits reports
- Repairs/replaces damaged BMPs
- Reports discharges
- Samples (SWPPP only)

Implementation

During construction, ensure the contractor:

- Stabilizes soil
- Controls sediment
- Prevents tracking
- Uses concrete washouts

Implementation

During construction, ensure the contractor performs dewatering properly:

1. Follows *CT Field Guide for Construction Site Dewatering*
2. Causes no erosion, scour, sedimentary deposits
3. Discharges within the project limits
4. Does **not** discharge water that has odor, oily sheen, or foam

Resources

- Chapter 13 – Water Pollution Control, CTSS
- Chapter 7 – Environmental Stewardship, CTCM
- Caltrans Stormwater & Water Pollution Control:
<https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control>
 - Storm Water Manuals at bottom of webpage
- Storm Water Pollution Prevention training courses

CTSS = Caltrans Standard Specifications
CTCM = Caltrans Construction Manual

Resources

CT Manuals:

- Storm Water Management Enforcement Guidance
- Field Guide for Construction Site Dewatering
- SWPPP/WPCP Preparation Manual
- Construction Site Best Management Practices
- Chapter 7, CTCM

Construction Site Best Management Practices (BMP) Manual

Stormwater Pollution Prevention Plan (SWPPP)

Water Pollution Control Program Preparation Manual

The screenshot shows the Caltrans website interface. At the top, there is a navigation bar with links for 'About Caltrans', 'Contact Us', 'ADA Certification', 'Request ADA Compliant Documents', 'Settings', and 'Translate'. Below this is the Caltrans logo and a row of icons for 'Travel', 'Work with Caltrans', 'Programs', 'Caltrans Near Me', and 'Search'. The main content area has a breadcrumb trail: 'Home | Programs | Construction | Storm Water and Water Pollution Control | Manuals and Handbooks'. The title of the page is 'Manuals and Handbooks'. A paragraph of text explains that the 'BMPs Manual' and 'SWPPP/WPCP Preparation Manual' incorporate requirements from the State Water Resources Control Board (SWRCB) and the NPDES General Permit. Below this text is a list of manual titles, each in a light blue box with a link: 'BMP Field Manual and Troubleshooting Guide', 'Construction Site Best Management Practices (BMP) Manual', 'Construction Site Monitoring Program Guidance Manual', 'District Construction Stormwater Coordinators (DCSWC) Manual', 'Field Guide to Construction Site Dewatering', 'Storm Water Multi-Application and Report Tracking System (SMARTS) User Manual', and 'SWPPP/WPCP Preparation Manual'. On the right side, there is a sidebar titled 'Storm Water and Pollution Control Information' containing a list of links: 'Form DOT CEM-2075SW Optional Spreadsheet (XLSX)', 'Other Stormwater Inspection Forms', 'Other Stormwater Manuals and Handbooks', and 'Water Pollution Control Pamphlets'.

<https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/manuals-and-handbooks>

Water Pollution Control

[Home](#) | [Programs](#) | [Environmental Analysis](#) | Stormwater Management Program

Stormwater Management Program

The California Department of Transportation Stormwater Management Program (SW Program) complies with National Pollutant Discharge Elimination System (NPDES) Statewide Storm Water Permit Waste Discharge Requirements Order Number 2012-0011-DWQ, NPDES Number CAS000003. The SW Program provides statewide policy direction, technical and regulatory information, guidance documents, specifications, and funding to integrate appropriate stormwater control activities. The SW Program provides water quality monitoring, best management practices development along with implementing guidance and tools.

Links below marked with ** redirect to CA State Water Board Resources website.

[Contact Stormwater Management Program](#)

[Contact District NPDES Coordinator](#)

[2023 Trash Assessment Mapping](#)

[2023 Trash Assessment Implementation Plan \(PDF\)](#)

[Caltrans Bay Area 2024 Trash Capture Update Video](#)

Forms & Templates

- [Monitoring Station ID Request \(XLS\)](#) (October 2018)
- [Water Quality Assessment Report Template](#)
- [Water Quality Scoping Questionnaire](#)

Manuals

- [Caltrans BPM Pilot Study Guidance Manual \(PDF\)](#) (April 2021)
- [Caltrans Stormwater Monitoring Guidance Manual \(PDF\)](#) (August 2020)

<https://dot.ca.gov/programs/environmental-analysis/stormwater-management-program>

Water Pollution Control: Documents

WPC Project File Documents:

- SWPPP or WPCP
- Contractor's weekly Site Inspection Reports
- Notice of Discharge Reports (NOD)
- All correspondence related to WPC

Documents

WPC Project File Documents (cont.):

- RE/Asst. RE Inspection Reports
- Copies of Certifications required by specs
- SMARTS printout after filing a NOT (Notice of Termination)

SMARTS = Stormwater Multiple Applications and Report Tracking System

Remember...

- **The Clean Water Act & CFRs Title 40 require projects that disturb “1 acre or more” of soil be covered under the NPDES Construction General Permit, and to develop a SWPPP.**
- **A project that disturbs less than 1 acre only requires a WPCP.**
- **The Contractor is responsible to develop and implement the SWPPP, and monitor, inspect, and correct water pollution control practices or deficiencies.**
- **The RE ensures the contractor is doing the above and takes action if the contractor is not.**