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**Natural
Resources
Conservation
Service**

**Part 654 Stream Restoration Design
National Engineering Handbook**

Chapter 17 Permitting Overview

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Cover photo: Federal, state, local, and tribal laws, ordinances, and permitting requirements must be thoroughly recognized and understood during the restoration planning process.

Advisory Note

Techniques and approaches contained in this handbook are not all-inclusive, nor universally applicable. Designing stream restorations requires appropriate training and experience, especially to identify conditions where various approaches, tools, and techniques are most applicable, as well as their limitations for design. Note also that product names are included only to show type and availability and do not constitute endorsement for their specific use.

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Chapter 17 Permitting Overview

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Chapter 17 Permitting Overview

654.1700 Purpose

Stream restoration and design activities are subject to various Federal, state, and local regulatory programs. Most of these regulations are aimed at protecting natural resources and the integrity of the Nation's water resources. This chapter provides a brief overview of the regulatory authorities and programs that may be applicable to stream design work. The focus of this chapter is to provide an awareness-level understanding of this important issue and to list sources where current information can be obtained. The reader should not interpret the information herein as the only source of regulatory requirements. Federal, state, and local regulatory authorities should always be researched and consulted as part of the initial planning and design efforts.

654.1701 Introduction

Every stream design or restoration effort is subject to regulatory requirements. Designers should be aware of project permitting requirements and develop a project plan and budget identifying resources and project approaches that meet permit conditions. Depending on the type of project and its location, these can range from minimal to a full set of required Federal, state, and local permits. The applicable programs and permits can include:

- National Environmental Policy Act
- Endangered Species Act
- National Historic Preservation Act
- Wild and Scenic Rivers Act
- Fish and Wildlife Coordination Act
- Clean Water Act
- Rivers and Harbors Act of 1899
- Magnuson-Stevens Fishery Conservation and Management Act
- Local and state water quality permits
- Water rights
- National Flood Insurance Program
- Local and state flood permits
- Local zoning permits

655.1702 Initiating a permitting process

Permitting agencies should be approached as soon as conceptual plans are developed. In regulatory-intensive areas, as well as in areas of high environmental risk, it may be advisable to consult with them in the early planning stages. In general, designers and planners should provide at least the following to the permitting agency:

- site map
- description of existing environmental conditions (written and maps, photos, drawings)
- description of the proposed work (written and drawings)
- property ownership
- access and staging information
- preferred times of implementation

Refer to permitting agency guidance (usually available online), or contact an agency representative for additional information on what to provide. Local planning agencies often are able to steer designers towards the applicable Federal and state agencies and requirements. Table 17–1 provides some examples (Federal Interagency Stream Restoration Working Group (FISRWG) 1998).

654.1703 U.S. Army Corps of Engineers Regulatory Program

One of the most prominent national permitting requirements is the regulatory program administered by the U.S. Army Corps of Engineers (USACE). The mission of the USACE Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible, and balanced permit decisions. Streams, wetlands, and other water features are important in protecting overall water quality, fish and wildlife habitat, flood storage, natural products, recreation, aesthetics, and navigation.

The USACE evaluates permit applications for most construction activities that occur in the Nation's waters, including wetlands. USACE permits are also necessary for any work in, or affecting the Nation's navigable waters, including construction and dredging. The USACE balances the reasonably foreseeable benefits and detriments of proposed projects and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. During the permit process, the USACE considers the views of other Federal, state, and local agencies; interest groups; and the general public. The intended result of this public interest review is fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The adverse impacts to the aquatic environment are offset by mitigation requirements, which may include avoiding and minimizing impacts to, as well as restoring, enhancing, creating, and preserving, aquatic functions and values. The USACE strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

The USACE administers and enforces the regulatory program over waters of the United States, including wetlands and navigable waters, through its Regulatory Program. The day-to-day administration of the Regulatory Program is accomplished through the USACE district offices. USACE offices for each zip code and points of contact within the USACE Regulatory Program are listed on the USACE Web site at:

http://www.usace.army.mil/inet/functions/cw/cecwo/reg/

Table 17–1 Examples of permit requirements for restoration activities

Local/state

Permits required	Activities covered	Administered by:
Varies—thresholds and definitions vary by state	Clearing/grading, sensitive/critical areas, water quality, aquatic access	Local grading, planning, or building departments; various state departments

Federal

Permits required			Activities covered	Administered by:
Section 10, Rivers and Harbors Act of 1849			Building of any structure in the channel or along the banks of "navigable waters" of the United States that changes the course, condition, location, or capacity	USACE
Section 404, Federal Clean Water Act	Letters of permission		Minor or routine work with minimum impacts	USACE
	Nationwide permits	3	Repair, rehabilitation or replacement of structures destroyed by storms, fire, or floods in past 2 years	
		13	Bank stabilization less than 500 feet in length solely for erosion protection	
		26	Filling of up to 1 acre of a nontidal wetland or less than 500 linear feet of nontidal stream that is either isolated from other surface waters or upstream of the point in a drainage network where the average annual flow is less than 5 ft^3/s	
		27	Restoration of natural wetland hydrology, vegetation, and function to altered degraded nontidal wetlands, and restoration of natural functions of riparian areas on private lands provided a wetland restoration or creation agreement has been developed	
	Regional permits		Small projects with insignificant environmental impacts	
	Individual permits		Proposed filling or excavation that causes severe impacts, but for which no practical alternative exists; may require an environmental assessment	
Section 401, Federal Clean Water Act			Water quality certification	State agencies
Section 402, Federal Clean Water Act National Pollutant Discharge Elimination System (NPDES)			Point source discharges, as well as nonpoint pollution discharges	State agencies
Endangered Species Act Incidental Take Permit			Otherwise lawful activities that may take listed species	USFWS

(a) Legislative history

The legislative origins of the USACE regulatory program are the Rivers and Harbors Acts of 1890 (superseded) and 1899 (33 U.S.C. 401, et seq.). The authority is granted to the Secretary of the Army. Various sections establish permit requirements to prevent unauthorized obstruction or alteration of any navigable water of the United States. The most frequently exercised authority is contained in Section 10 (33 U.S.C. 403). The references mentioned are available on the USACE Web site at:

http://www.usace.army.mil/inet/functions/cw/cecwo/reg/

Section 10 addresses construction, excavation, or deposition of materials in, over, or under such waters or any work that would affect the course, location, condition, or capacity of those waters. Section 9 addresses dams and dikes, Section 13 addresses refuse disposal, and Section 14 addresses temporary occupation of work built by the United States. Various pieces of legislation have modified these authorities, but not removed them.

In 1972, amendments to the Federal Water Pollution Control Act added what is commonly called Section 404 authority (33 U.S.C. 1344) to the USACE regulatory program. In it, the Secretary of the Army, acting through the Chief of Engineers, is authorized to issue permits, after notice and opportunity for public hearing, for the discharge of dredged or fill material into waters of the United States at specified disposal sites. Selection of such sites must be in accordance with guidelines developed by the U.S. Environmental Protection Agency (EPA) in conjunction with the Secretary of the Army. These guidelines are regulatory and are known as the 404(b)(1) Guidelines.

The discharge of all other pollutants into waters of the United States is regulated under Section 402 of the act, which supersedes the Section 13 permitting authority mentioned above. The Federal Water Pollution Control Act was amended in 1977 and given the common name of Clean Water Act and again amended in 1987 to modify criminal and civil penalty provisions and to add an administrative penalty provision.

Also in 1972, with enactment of the Marine Protection, Research, and Sanctuaries Act, the Secretary of the Army, acting through the Chief of Engineers, was authorized to issue permits under Section 103 for the transportation of dredged material for ocean disposal. This authority also carries with it the requirement of notice and opportunity for public hearing. Disposal sites for such discharges are selected in accordance with criteria developed by EPA in consultation with the Secretary of the Army.

(b) Geographic jurisdiction

The USACE, acting under Section 404 of the Clean Water Act and Section 10 of the River and Harbors Act of 1899, regulates certain activities occurring in waters of the United States and navigable waters of the United States. The term Waters of the United States is defined in 33 CFR 328.3, as:

> *(a) The term "Waters of the United States" means*
>
> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
>
> *(2) All interstate waters including interstate wetlands;*
>
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:*
>
> *(i) Which are or could not be used by interstate or foreign travelers for recreation or other purposes; or*
>
> *(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*
>
> *(iii) Which are used or could be used for industrial purpose by industries in interstate commerce;*
>
> *(4) All impoundments of waters otherwise defined as waters of the United States*
>
> *(5) Tributaries of waters identified in Paragraphs (a) (1–4) of this section;*
>
> *(6) The territorial seas;*

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in Paragraphs (a) (1)–(6) of this section.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m), which also meet the criteria of this definition), are not waters of the United States.

The limit of USACE jurisdiction under Section 404 in the territorial seas is 3 nautical miles seaward from the baseline along the shore. The limit in tidal waters of the United States extends to the high tide line in the absence of adjacent wetlands and extends to the limit of the wetlands when adjacent wetlands are present.

Ordinary high water

The limit of USACE jurisdiction in nontidal waters of the United States, in the absence of adjacent wetlands, is the ordinary high water mark. The ordinary high water mark is the limit of USACE jurisdiction for such water features as streams, reservoirs, lakes, and ponds. Ordinary high water mark is defined as that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Even very small ephemeral streams may have an ordinary high water mark and be waters of the United States.

Wetlands

When adjacent wetlands are present, USACE jurisdiction under Section 404 extends beyond the ordinary high water mark to the limit of the adjacent wetlands. Wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Delineations of wetlands must be conducted using the USACE of Engineers Wetland Delineation Manual, USACE Waterways Experiment Station Wetlands Research Program Technical Report Y–87–1, dated January 1987. (Online edition including all supplemental guidance is available on the USACE Web site at:

http://www.usace.army.mil/inet/functions/cw/cecwo/reg/wlman87.pdf

Adjacent is defined as bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by manmade dikes or barriers, natural river berms, beach dunes and the like are adjacent wetlands. When the water of the United States consists only of wetlands, USACE jurisdiction extends to the limit of the wetland.

Wetlands are areas that are covered by water or have waterlogged soils for long periods during the growing season. Plants growing in wetlands are capable of living in saturated soil conditions for at least part of the growing season. Wetlands such as swamps and marshes are often obvious, but other wetland types are not easily recognized, often because they are dry during part of the year or do not look very wet from the roadside. Some of these wetland types include, but are not limited to:

- bottomland forests
- pocosins
- pine savannahs
- bogs
- wet meadows
- potholes
- wet tundra

The USACE uses the following three characteristics when making wetland delineations:

- vegetation
- soil
- hydrology

Unless an area has been altered or is a rare natural situation, wetland indicators of all three characteristics must be present for an area to be a wetland.

There are some general situations in which an area has a strong probability of being classified as a wetland. These conditions include:

- The area occurs in a flood plain or otherwise has low spots in which water stands at or above the soil surface during the growing season. **Caution: Most wetlands lack both standing water and waterlogged soils during at least part of the growing season.**
- The area has plant communities that commonly occur in areas having ponded or saturated soil conditions for part of the growing season (cypress-gum swamps, bottomland hardwood forests, cordgrass marshes, cattail marshes, bulrush and tule marshes, and sphagnum bogs).
- The area has hydric soils such as peats and mucks. While most soils map show areas of hydric soils that could be wetlands, it is important to note that there are soils, in addition to peat or mucks, that qualify as wetland soils.
- The area is periodically flooded by tides, even if only by strong, wind-driven, or spring tides.
- U.S. Geological Survey (USGS) topographic maps, National Wetland Inventory maps, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil surveys, local NRCS office aerial photos that show wetland areas, and other Federal, state, and local maps and photos that provide wetland information.

If any of the above situations occur or if other conditions exist that indicate that a wetland or other water of the United States may be present, the designer should ask the local USACE office for assistance in making a determination. Procedures for determining the hydrology of wetlands and can provide guidance in determining the minimal effect provisions of wetland determination are provided in NEH630.19.

Navigable waters

Under Section 10 of the River and Harbors Act of 1899, the USACE regulates navigable waters of the United States, a subset of waters of the United States. Navigable waters of the United States are defined at 33 CFR 329 as those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the water body, and is not extinguished by later actions or events which impede or destroy navigable capacity. The several factors which must be examined when making a determination whether a water body is a navigable water of the United States are listed. Generally, the following conditions must be satisfied:

- past, present, or potential presence of interstate or foreign commerce
- physical capabilities for use by commerce as in paragraph (a) of this section
- defined geographic limits of the water body

The limit of USACE jurisdiction for navigable waters of the United States for oceanic and tidal waters is the mean high tide line shoreward and 3 nautical miles seaward from the point where the shore directly contacts the open sea. The limit for rivers and lakes is the ordinary high water mark and jurisdiction extends to the entire water surface and bed of the water body.

Navigable waters of the United States include many coastal waters including bays and portions of major rivers. You may obtain information about navigable waters located within each USACE district by contacting that district.

Regulated activities

A permit is required from the USACE for discharges of dredged or fill material into waters of the United States (33 CFR Part 323). Dredged material is material that is excavated or dredged from waters of the United States (33 CFR 323.2(c)). The discharge of dredged material is material excavated or dredged from waters of the United States and redeposited into waters of the United States, runoff or overflow from a contained land or water disposal area, or the redeposit of dredged material other than incidental fallback (33 CFR 323.2(d)). Discharge of dredged material does not include discharges associated with onshore processing of dredged material extracted for commercial use, activities involving only cutting or removing vegetation so that root systems are not disturbed, or incidental fallback of dredged material.

Fill material is material that is placed into waters of the United States where the material has the effect of replacing a water with dry land or changing the bottom elevation of any portion of a water of the United States (33 CFR 323.2(e)). However, fill material does not include trash or garbage. The discharge of fill ma-

terial is the addition of fill material into waters of the United States. The definition identifies activities that may be associated with the placement of fill including any structure or infrastructure; impoundments; recreational, industrial, commercial, residential, or other uses; causeways or roads; dams or dikes; artificial islands; property protection or reclamation devices; beach nourishment; levees; sewage treatment facilities; intake and outfall pipes; subaqueous utility lines; construction or maintenance of any liner, berm, or other infrastructure of solid waste landfill; placement of overburden, slurry or tailings or similar mining-related materials; and artificial reefs. Plowing, cultivating, seeding, and harvesting for the production of food, fiber, and forest products are excluded.

All discharges of dredged or fill material into waters of the United States require a permit, unless they are exempted or excepted in regulations. Section 404(f) exemptions (33 CFR 323.4) include normal farming, forestry, and ranching activities; maintenance of recently damaged structures; construction/maintenance of farm ponds and irrigation ditches; construction of temporary sedimentation basins; Section (208)(b)(4) approved state program activities; and construction/maintenance of farm, forest, and mining roads using approved best management practices. However, discharges that are a part of an activity whose purpose is to convert an area of waters of the United States to a use to which it was not previously subject, and the flow or circulation of waters of the United States would be impaired or the reach of such waters reduced, must have a permit.

For additional information about regulated activities and exemptions, the designer should contact the local USACE district office.

(c) Permitting

Activities requiring a permit from the USACE under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899 may be permitted by General Permit or Individual Permit. There are three types of general permits: Nationwide General Permit, Regional General Permit, and Programmatic General Permit. There are two types of individual permits: letter of permission and standard individual permit. Standard individual permits require a public notice. Under Section 401 of the Clean Water Act, certification of compliance with state water quality standards by the state Water Quality Agency is required for any discharge of pollutants into waters of the United States. All Section 404 permits, individual or general, require Section 401 water quality certification. Conditions may be associated with state water quality certification and may apply to both individual and general permits.

General permits

A general permit is issued nationwide or regionally for a category or categories of activities that are either similar in nature and cause only minimal individual and cumulative adverse impacts (nationwide and regional general permits) or would result in avoiding unnecessary regulatory control exercised by another Federal, state, or local agency, and the environmental consequences of the activity would be individually and cumulatively minimal (Programmatic General Permit). General permits always include terms and conditions for compliance, may require preconstruction notification of the USACE, and may be issued for a period not to exceed 5 years (See 33 CFR 320.1 (c), 322.2 (f), 323.2 (h), 325.2 (e)(2), and 330).

Nationwide General Permit—A Nationwide General Permit (NWP) is a type of general permit issued nationally. The regulations that govern NWPs are found at 33 CFR 330. NWPs are valid for 5 years from the date of issuance. NWP regional conditions for may be adopted by each USACE district for a particular state.

Preconstruction notification (PCN) to the USACE is required in many cases, and resource agency coordination with the EPA, U.S. Fish and Wildlife Service (USFWS), and state water quality, fish and wildlife, and cultural resource agencies is required in some cases. A PCN to the USACE is required (even if a PCN is not otherwise required) if threatened or endangered species or its critical habitat may be affected by or is in the vicinity of the proposed activity, or if historic properties listed or eligible for listing in the National Register of Historic Places may be affected by the proposed project. No activity may be authorized if the continued existence of a federally listed threatened, endangered, or proposed threatened or endangered species is jeopardized or critical habitat is destroyed or adversely modified.

No activity which may affect historic properties listed or eligible for listing in the National Register of His-

toric Places is authorized until the district engineer has complied with the provisions of 33 CFR part 325, appendix C. The prospective permittee must notify the USACE if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places and may not begin the activity until notified by the USACE that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. For activities that may affect historic properties listed or eligible for listing, in the National Register of Historic Places, the preconstruction notification must state which historic property may be affected by the proposed work and include a vicinity map indicating the location of the historic property.

The USACE has 30 days to review a PCN to determine if it is complete. PCNs must include:

- name, address, telephone number
- location of the proposed project
- brief description of the proposed project
- the project's purpose
- direct and indirect adverse environmental effects
- other nationwide permits or individual permits to be used
- other permit specific items for NWPs 7, 12, 14, 18, 21, 29, 33, 34, 38, 39, 40, 41, 42, 43, 44

If the PCN is not complete, the USACE can request the required information only once. Within 45 days of receipt of a complete PCN, the USACE must advise the prospective permitee of its determination whether the proposed activity meets the terms and conditions of the NWP, or exercise discretionary authority.

Resource agency coordination is required only for NWP activities that require a preconstruction notification to the USACE and result in the loss of greater than a acre of waters of the United States. If resource agency coordination is required, the agencies have 10 calendar days to notify the USACE that they intend to provide comments. If an agency so notifies the USACE, the USACE must wait an additional 15 calendar days for the comments. A signed compliance certification must be submitted by every permittee who has received NWP verification from the USACE. Postconstruction reports are required for nonreporting NWP 39 (residential, commercial, and institutional developments).

A permittee may use more than one NWP to authorize a single and complete project, provided the acreage loss of waters of the United States does not exceed the highest specified acreage limit of the NWPs used to authorize that single and complete project. Projects must be designed and constructed to avoid and minimize adverse effects to waters of the United States to the maximum extent practicable at the project site. Mitigation in all forms (avoidance, minimization, and compensation) may be required to the extent necessary to ensure minimal adverse impacts on the aquatic environment.

NWP 27 authorizes certain activities in waters of the United States associated with the restoration of former waters, the enhancement of degraded tidal and nontidal wetlands and riparian areas, and the restoration and enhancement of nontidal streams and nontidal open water areas. This NWP may be particularly appropriate for Section 404 authorization of many stream restoration projects.

Regional General Permit—A Regional General Permit (RGP) is a type of general permit that is issued regionally. Regulations addressing RGPs are found at 33 CFR 322.2(f), 323.2(h), and 325.2(e)(2). RGPs are similar to NWPs and contain terms and conditions intended to protect the environment including natural and cultural resources. Work that would not comply with those provisions may require authorization by individual permit. However, compliance with the conditions contained in this RGP does not guarantee authorization of the work by RGP. Work or structures that would have unacceptable impacts on the public interest are not authorized. Activities requiring Department of the Army authorization that are not specifically authorized by an RGP are prohibited unless they are authorized by another general permit or an individual permit.

Programmatic General Permit—A Programmatic General Permit (PGP) is a type of general permit that is issued to avoid unnecessary duplication of regulatory control exercised by another Federal, state, or local agency. With a PGP, a permit applicant generally must only apply to one agency, rather than applying

to both agencies for permits for the same work. PGPs have characteristics similar to NWPs and RGPs.

Individual permit

The basic form of authorization is the individual permit. Processing such permits involves evaluation of individual, project-specific applications in what can be considered three steps: preapplication coordination (for larger projects), formal permit application review, and decisionmaking. Preapplication is helpful for more complex cases and is addressed later in this chapter. Once a complete application is received, the formal review process begins. The project manager prepares a public notice (if required), evaluates the impacts of the project and considers all comments received, addresses potential modifications to the project if appropriate, and drafts or oversees drafting of appropriate documentation to support a recommended permit decision. The permit decision document includes the environmental impacts of the project, findings of the public interest review process, and any special evaluation required by the type of activity such as determinations of compliance with the Section 404(b)(1) Guidelines. As noted above, water quality certification from the state water quality agency must be obtained before a Section 404 permit may be issued.

Letter of permission—A letter of permission (LOP) is a type of permit issued through an abbreviated processing procedure that includes coordination with Federal and state fish and wildlife agencies, as required by the Fish and Wildlife Coordination Act, and a public interest evaluation, but without the publishing of an individual public notice (see 33 CFR 325.2(e)(1)). An LOP procedure is an alternative procedure for evaluating individual permit applications for activities in waters of the United States authorized by the USACE. The LOP procedure serves to reduce the administrative procedures and to expedite permit decisions for cases that include only minor work in waters of the United States that do not have significant individual or cumulative environmental impacts and should encounter no appreciable opposition. The LOP may not be used to authorize the transportation of dredged material for the purpose of dumping it in ocean waters. LOPs may be used in those cases subject to Section 10 of the Rivers and Harbors Act of 1899 when, the proposed work would be minor, would not have significant individual or cumulative impacts on environmental values, and should encounter no appreciable opposition.

To use LOPs in cases subject to Section 404 of the Clean Water Act, the USACE must first consult with Federal and state fish and wildlife agencies, the EPA, the state water quality certifying agency, and, if appropriate, the state Coastal Zone Management Agency, on appropriate categories of activities for authorization under LOP procedures. The USACE must also issue a public notice advertising the proposed list and the LOP procedures, request comments, and offer an opportunity for public hearing. Finally, 401 certification must be issued or waived and, if appropriate, CZM consistency concurrence obtained or presumed either on a generic or individual basis.

An LOP may include general conditions and appropriate case-specific provisions necessary to protect the environment including natural and cultural resources. LOP procedures may not have an expiration date, but LOPs issued under the procedure always will have an expiration date. The USACE must conduct a public interest evaluation, but there is no requirement for a public notice. The permittee is responsible for obtaining any additional Federal, state, or local permits that may be required. Refer to the applicable LOP procedure for the application procedures and other requirements in each case.

Work that does not comply with the provisions of LOP procedure may require authorization by standard individual permit. Compliance with the LOP procedure, including the general conditions, does not guarantee authorization of the work by an LOP.

Standard individual permit—Activities that do not qualify for authorization under a general permit or an LOP procedure may qualify for authorization by standard individual permit (SP). Authorization under SP may be obtained only through application with the USACE. These permits are issued for activities that have more than minimal adverse impacts to waters of the United States, and evaluation of each permit application involves more thorough review of the potential environmental and socioeconomic effects of the proposed activity. The applicant must submit required information (33 CFR 325.1(d)) on an Individual Permit Application Form (Form 4345) or an approved alternative form. An alternative analysis and a mitigation plan are not required for a complete application to prepare a public notice, but are very helpful. The SP evaluation process may be summarized as follows:

- preapplication coordination
- Individual Permit Application Form submitted
- after receipt of a complete application, the USACE issues joint public notice for Section 404 and Section 401 water quality certification
- 15- to 30-day Public Notice comment period
- opportunity for public hearing
- USACE reviews comments, evaluates the permit application based on regulations, and completes required documentation
- USACE makes a decision: issue, issue with conditions, or deny

Permit decisions are based on probable impacts associated with the proposed project, including cumulative impacts, on the public interest (33 CFR 320.4). Public review interest factors include:

- conservation
- economics
- aesthetics
- general environment
- wetlands
- cultural values
- fish and wildlife values
- land use
- flood hazards
- property ownership
- flood plain values
- navigation
- recreation
- shore erosion and accretion
- water supply/water quality
- energy needs
- safety
- mineral needs
- food and fiber production
- needs and welfare of people

A permit will be granted if the proposed project is not contrary to the public interest and meets other legal requirements, such as the Section 404(b)(1) Guidelines and state water quality certification.

The Section 404(b)(1) Guidelines are the substantive criteria developed by the EPA and used by the USACE to evaluate proposed discharges into waters of the United States. The USACE may not issue a permit under Section 404 if the proposal does not meet the 404(b)(1) guidelines. The USACE may only issue a permit for the least environmentally damaging practicable alternative. Practicability includes consideration for cost, existing technology, and logistics.

The level of review of a proposed project is commensurate to the level of impact to waters of the United States. The USACE may not issue a permit if the proposed project is not in compliance with other laws (such as Section 401 of the Clean Water Act; National Environmental Policy Act; Fish and Wildlife Coordination Act; Endangered Species Act (threatened or endangered species information); Coastal Zone Management Act; National Historic Preservation Act; Magnuson-Stevens Fishery Conservation and Management Act; Essential Fish Habitat); if the activity would result in significant degradation of aquatic environment (net after mitigation); or if there is not appropriate and practicable mitigation. Public interest reviews, Section 404(b)(1) analyses and National Environmental Policy Act analyses require a resource impact assessment, which may include Hydrogeomorphic Approach (HGM), Wetland Evaluation Technique (WET), Habitat Evaluation Procedures (HEP) or another technique for wetlands, or the EPA's rapid bioassessment method or another technique for streams.

Preapplication coordination

Processing permit applications and requests for verification of general permit authorization may involve preapplication coordination. Preapplication coordination usually involves one or several telephone conversations or meetings between an applicant and USACE district staff and may include interested resource agencies (Federal, state, or local), and sometimes, the interested public. The basic purpose of such conversations or meetings is to provide for informal discussions about the pros and cons of a proposal and potential alternatives before an applicant makes irreversible commitments of resources (funds, detailed designs). The process is designed to provide the applicant with

an assessment of the viability of some of the more obvious alternatives available to accomplish the project purpose, discuss measures for reducing the impacts of the project, and inform the applicant of the factors the USACE must consider in its decisionmaking process. In many cases, preapplication coordination with the USACE has produced project changes that resulted in streamlined regulatory requirements; for example, a general permit was sufficient for the revised project where a standard individual permit would have been required for the original proposal.

Mitigation

A fundamental precept of the Regulatory Program is the Department of the Army's mitigation policy (33 CFR Part 320.4 (r)), which applies to all Regulatory Program authorizations including general permits. When the USACE reviews a project that would require Department of the Army authorization, its evaluation typically includes a determination of whether the applicant has taken sufficient measures to mitigate the project's likely adverse impact on the aquatic ecosystem.

In a Memorandum of Agreement (MOA) signed February 6, 1990, between the USACE and the EPA, mitigation was defined as a sequential process of avoiding, minimizing, and compensating for adverse impacts to the aquatic ecosystem.

- Avoid: Take all appropriate and practicable measures to avoid those adverse impacts to the aquatic ecosystem that are not necessary.
- Minimize: Take all appropriate and practicable measures to minimize those adverse impacts to the aquatic ecosystem that cannot reasonably be avoided.
- Compensate: Implement appropriate and practicable measures to compensate for adverse project impacts to the aquatic ecosystem that cannot reasonably be avoided or further minimized. This step is also referred to as compensatory mitigation. The purpose of compensatory mitigation is to replace those aquatic ecosystem functions that would be lost or impaired as a result of a USACE-authorized activity.

The district engineer will normally require the implementation of all appropriate and practicable compensation as a condition of the Department of the Army authorization. Compensatory mitigation is required at minimum 1:1 ratio (acres mitigated to acres impacted) for all wetland impacts requiring a preconstruction notification for a nationwide permit unless it has been waived (determined on a case-by-case basis).

Regulatory Guidance Letter 02–2 applies to all compensatory mitigation proposals associated with permit applications submitted for approval after December 24, 2002. USACE districts will use watershed and ecosystem approaches when determining compensatory mitigation requirements, consider the resource needs of the watersheds where the impacts will occur, and also consider the resource needs of neighboring watersheds. USACE districts may have districtwide or statewide mitigation guidelines, as well.

Mitigation banking is the restoration, enhancement, creation, and, in exceptional circumstances, preservation undertaken to compensate in advance for adverse impacts to the aquatic ecosystem. Mitigation banking may be appropriate when compensatory mitigation cannot be practicably achieved or would not be as environmentally beneficial at the impact site or a nearby site. The USACE, EPA, RCS, USFWS, and National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries Service) Federal Mitigation Banking Final Policy (Federal Register: November 28, 1995 (Volume 60, Number 228)) guidance regarding the establishment, use, and operation of mitigation banks for the purpose of providing compensation for adverse impacts to wetlands and other aquatic resources is provided to clarify the manner in which mitigation banks may be used to satisfy mitigation requirements of the CWA Section 404 permit program and the wetland conservation provisions of the Food Security Act (FSA) (Swampbuster provisions). Recognizing the potential benefits mitigation banking offers for streamlining the permit evaluation process and providing more effective mitigation for authorized impacts to wetlands, the agencies encourage the establishment and appropriate use of mitigation banks in the Section 404 and Swampbuster programs.

An in-lieu-fee program allows a permittee to pay a fee to an established trust fund in lieu of implementing specific onsite or offsite compensatory mitigation. The amount of the in-lieu-fee paid will normally represent the fair market cost of replacing those aquatic ecosystem resources that would be lost or impaired as a result of the authorized activity. The trust fund, in turn,

finances mitigation projects that are designed to restore, enhance, create, or preserve aquatic ecosystem functions. The Federal Guidance on the Use of In-lieu-fee Arrangements for Compensatory Mitigation, under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, elaborates on in-lieu-fee mitigation arrangements in the Banking Guidance by outlining the circumstances where in-lieu-fee mitigation may be used, consistent with existing regulations and policy.

The USACE supports a strong partnership with states in regulating activities under Section 404 of the Clean Water Act. This is achieved with joint permit processing procedures (joint public notices, meetings, and hearings), programmatic general permits founded on effective state programs, joint EISs, special area management planning, and regional conditioning of nationwide permits, where appropriate.

(d) Clean Water Act, National Pollutant Discharge Elimination System

The EPA administers the Clean Water Act (CWA) program. The primary objective of the CWA is to restore and maintain the Nation's waters. This program covers point discharge permits for construction stormwater runoff, erosion control permit, or ongoing discharges of pollutants. The CWA's primary control program is the National Pollutant Discharge Elimination System (NPDES). The CWA prohibits the discharge of pollutants from point sources (any single identifiable source of pollution, a pipe, ditch, and ship) to waters of the United States without a NPDES permit. The EPA or the approved state environmental control agency has responsibility for administering NPDES permits. More information is available on the following Web site:

http://cfpub.epa.gov/npdes/

As of 1992, any earth disturbance greater than 5 acres was required to have a stormwater permit, and as of March 2003, a permit must be obtained for any earth disturbance greater than 1 acre. This includes sites that are less than 1 acre if they are "…part of a larger common plan of development or sale or within 500 feet of a lake or stream."

States can impose more stringent pollution limits than the Federal rules require. States can also require more frequent monitoring and reporting and the use of numerous best management practices to control the pollution and the regulation of small sites. Although there are some differences between states, all construction stormwater permits will be general permits. While there are exceptions, most of what is required is a Stormwater Management Plan.

654.1704 National Flood Insurance Program

In 1968, Congress created the National Flood Insurance Program (NFIP) to reduce damages and loss of life caused by floods. The Mitigation Division of the Federal Emergency Management Agency (FEMA) manages the NFIP. Nearly 20,000 communities across the United States voluntarily participate in the NFIP via the adoption and enforcement of flood plain management ordinances. In exchange, the NFIP makes federally backed flood insurance available to these communities. However, in general, it is local governments that typically regulate development and other activities in the flood plain, not FEMA.

(a) Flood plain maps

This program is administered with the aid of Flood Hazard Boundary maps, Flood Insurance Rate maps, and Flood Boundary and Floodway maps. Flood plain maps provide the basis for flood management, regulation, and insurance requirements by identifying areas subject to flooding that threaten life safety and damage to property.

These maps identify several areas of flood hazards such as Special Flood Hazard Area (SFHA) floodways and floodway fringes. The SFHA is defined as an area of land that would be inundated by a base flood (typically the 1% chance event). New construction within the SFHA must comply with FEMA requirements. Evaluations to determine these areas follow the procedures in the Flood Insurance Study Guidance and Specifications for Study Contractors, FEMA 37 (FEMA, 11085). FEMA 37 defines a floodway:

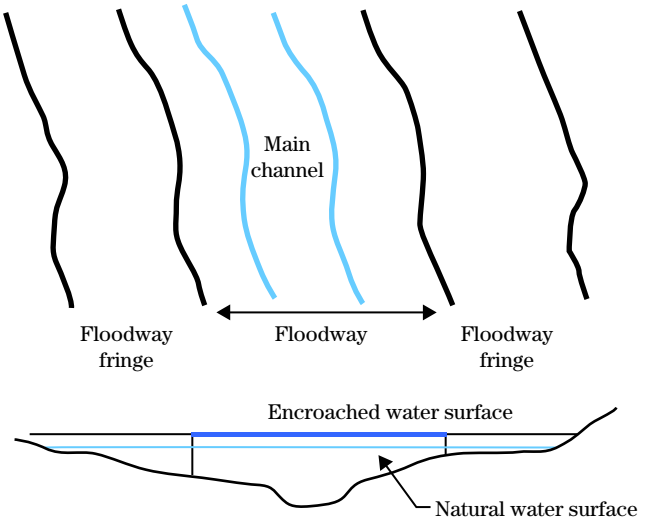
> *…as the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water-surface elevation by more than designated height.*

While there are exceptions, the base flood is typically the 1-percent chance event, and the designated height is 1 foot. The floodway is where the water is typically the deepest and fastest. It is the area of the waterway that should be kept free of obstructions to allow floodwaters to move downstream. Since most stream and channel work occurs within this area, a detailed analysis is typically required. The floodway fringe is the area that can be blocked by an encroachment without raising the base flood by more than the designated height. To define a flood map, calculations are made (often using HEC–RAS computer software) to determine how much of the fringe can be completely blocked. Figure 17–1 illustrates this determination.

(b) Types of studies

Several types of analyses may be required as part of a stream project. The most common type of study for simple projects is the so called no rise or no impact analysis. This must show that the proposed work will not impact the preproject base flood elevation. This can be a simple estimate of conveyance before and after the proposed project. In areas of higher risk or for projects involving more significant changes to the channel, a more complicated computer analysis may be required. Certification of this must be obtained before construction. The engineering or no rise analysis must be supported by technical data that is typically based upon the same engineering methodology used

Figure 17–1 Example calculation of a blocked floodway fringe



to develop the original mapped floodway. While local governments may review and approve the no rise submittal, they may request technical assistance from the FEMA regional office.

In some circumstances, it is not possible to demonstrate that a proposed project will not cause a rise in water surface during the base flood. In this situation, it can sometimes be argued that the potential increase in the base flood would not cause damage to habitable structures. For example, the area of possible impact may only be cropland. This type of study is the no damage analysis.

If a project results in significant changes in the flood plain, it may be necessary to revise the flood plain map. These involve the use of Letters of Map Revision (LOMR). The modeling and administrative work to obtain these can be significant.

(c) Flood plain map changes

Flood plain maps are periodically updated and revised to reflect changing conditions, such as new topography, land development, as well as updated mapping studies. They may also be updated to reflect stream and river projects. These flood plain map changes take one of the following forms:

- Publication of a new Flood Insurance Rate Map (FIRM)—the official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.
- Letters of Map Change (LOMC)
  - Conditional Letter of Map Amendment (CLOMA)—provides FEMA's comment on whether a proposed project would be excluded from the Special Flood Hazard Area (SFHA) as shown on the NFIP map. This letter does not revise an effective map, but it does indicate whether the project would or would not be removed from the SFHA.
  - Conditional Letter of Map Revision (CLOMR)—provides for a review of whether a proposed project within the SFHA meets the minimum flood plain management criteria of the NFIP. If it does, it may provide what revisions will be made to the community's NFIP map of the project. A CLOMR may be required before a project can be built.
  - Conditional Letter of Map Revision based on Fill (CLOMRF)—similar to above, but is for project impacts based on fill that would exclude an area from the SFHA shown on the NFIP map.
  - Letter of Map Amendment (LOMA)—an amendment to the currently effective FEMA map that establishes that a property is not located in a SFHA. A LOMA is issued only by FEMA.
  - Letter of Map Revision (LOMR)—an official amendment to the currently effective FEMA map and reflects changes in flood zones, delineations, and elevations. A LOMR is issued only by FEMA.
  - Letter of Map Revision based on Fill (LOMRF)—similar to the LOMR, but based on fill.
- Local map changes

More information on this program is provided at the following Web site:

http://www.fema.gov/fhm/

654.1705 Endangered Species Act, as amended 1973

The Endangered Species Act (ESA) is a Federal statute that was designed to protect threatened and endangered species from extinction, excluding all recognized insect pests from this distinction. It is designed to ensure that Federal agencies will not take actions that might jeopardize listed, threatened, or endangered species. Specifically, it states:

> *The purposes of this Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth…*

The USFWS (Department of the Interior) and NOAA Fisheries Service (Department of Commerce) are responsible for promulgating the provisions of the ESA. The USFWS's primary responsibilities include designating species as threatened or endangered, establishing recovery plans, designating critical habitat, and assisting the states and other Federal agencies with conservation and implementation of the ESA. Generally, NOAA Fisheries Service is responsible for protecting anadromous salmonids and marine mammals, while the USFWS's scope of authority covers a wider range of terrestrial and freshwater species (birds, butterflies, plants, snails, large mammals, and fish). The agencies maintain a list of endangered and threatened species. Any species that have been removed from endangered status are said to have been delisted.

The ESA mandates cooperation between Federal, state, and foreign governments in the conservation of listed species. The Secretaries of the Interior and Commerce must cooperate with the states to acquire and manage land for conservation purposes and have the authority to enter into cooperative agreements to provide assistance to states that establish programs for the conservation of listed species. For example, Section 6 of the ESA provides Federal financial assistance and incentives to states that develop and maintain conservation programs for resident listed resources.

Under the ESA, *all* Federal agencies must participate in the conservation and protection of threatened and endangered species. Specifically, Section 7 of the ESA charges Federal agencies to aid in the conservation of listed species (Section 7 (a)(1)) and requires Federal agencies to ensure that their activities will not jeopardize the continued existence of listed species or adversely modify designated critical habitats (Section 7 (a)(2)). Under the provisions of Section 7(a)(2), a Federal agency that permits, licenses, funds, or otherwise authorizes activities must consult with the Services to ensure that its actions will not jeopardize the continued existence of any listed species. Consequently, stream restoration projects funded, designed, or authorized by the NRCS are subject to Section 7 consultation, even if the effects or outcome of the project are completely beneficial to listed resources. The following Web sites provide additional information on listed species and the ESA:

http://www.fws.gov/endangered/

http://www.nmfs.noaa.gov/pr/species/esa_species.htm

654.1706 Fish and Wildlife Coordination Act, as amended 1965

The Fish and Wildlife Coordination Act (FWCA), as amended, proposes to assure that fish and wildlife resources receive equal consideration with other values during the planning of federally funded water resources development projects. The act was passed because the goals of water-related projects (flood control, irrigation, navigation, hydroelectric power) may conflict with the goal of conserving fish and wildlife resources. Conversely, project developers can design water development projects to enhance the quality and enjoyment of fish and wildlife resources if such goals are incorporated into project plans. The USFWS, NOAA Fisheries Service, and the state fish and wildlife agencies comment on USACE Individual Permit applications under this authority during the 30-day public comment period.

The Act authorizes the Secretary of the Interior to provide assistance to and cooperate with Federal, state, and public or private agencies and organizations in the development and protection of fish and wildlife resources and habitat, make surveys and investigations of the fish and wildlife in the public domain, and accept donations of land and funds that will further the purposes of the Act. The following Web site provides information on requirements for Federal agencies to manage fish and wildlife species under the FWCA:

http://laws.fws.gov/lawsdigest/fwcoord.html

654.1707 National Environmental Policy Act, as amended 1982

The purposes of the National Environmental Policy Act (NEPA) are to:

- declare a national policy which will encourage productive and enjoyable harmony between people and their environment
- promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of society
- enrich the understanding of the ecological systems and natural resources important to the Nation
- establish a Council on Environmental Quality

The NEPA requires that Federal agencies use a systematic, interdisciplinary approach in planning and decisionmaking that may impact the human environment. The Act calls for Federal decisionmakers to consider the environmental impacts of their actions before implementing them. The following Web site provides information on requirements as they relate to NEPA:

http://ceq.eh.doe.gov/nepa/regs/nepa/nepaeqia.htm

654.1708 Magnuson-Stevens Fishery Conservation and Management Act, as amended 1996

The purposes of the Magnuson-Stevens Fishery Conservation and Management Act are to take immediate action to:

- conserve and manage the fishery resources found off the coasts of the United States and the anadromous species and Continental Shelf fishery resources of the United States
- adapt exclusive fishery management authority beyond the exclusive economic zone over such anadromous species and Continental Shelf fishery resources and fishery resources in the special areas

The act supports and encourages the implementation and enforcement of international fishery agreements for the conservation and management of highly migratory species and encourages the negotiation and implementation of additional such agreements as necessary. The following Web site provides information on the requirements:

http://www.nmfs.noaa.gov/sfa/magact/

654.1709 State regulations and permitting—general

Each state has individual statutes and codes that provide the legal framework for developing and managing water resource-related projects. A variety of permits are required to work within rivers, streams, and/or wetlands. State fish and wildlife agencies and land management agencies are the typical implementing agency. Local permit requirements should be fully identified when developing project plans, designs, and construction specifications. The following list has links to examples for state and local permit requirements. Typically, the state environmental protection, environmental quality, ecology, or natural resources is responsible for administrating permits.

California:

http://www.swrcb.ca.gov/quality.html

Maine:

http://www.maine.gov/dep/permits.htm

Oregon:

http://licenseinfo.oregon.gov/

Washington:

http://www.ecy.wa.gov/programs/sea/pac/jarpa.html

Some state wetland regulatory programs also exist as noted at the following Web site:

http://www.aswm.org/swp/states.htm

654.1710 State regulations and permitting—fish passage

Many states have specific language regarding fish passage and fish screen requirements, whereas others are more general in scope. Design engineers and biologists should be aware of all state regulations pertaining to fish passage and screen requirements. A few examples of state codes and regulations that require fish passage or fish screening are listed below. However, some states do not have specific codes requiring fish passage or screens. Contact the local fish and wildlife agency for more information.

California:

http://www.dfg.ca.gov/1600/1600code.html

Maine:

http://www.maine.gov/mdot/environmental-office-homepage/documents/finalfishpassage2003.pdf

Oregon:

http://www.dfw.state.or.us/ODFWhtml/InfoCntrFish/InfoCntrFish.html

Washington:

http://www.wdfw.wa.gov/hab/engineer/habeng.htm

654.1711 Conclusion

Any stream project must meet or exceed all Federal, state, and local regulatory requirements. Regulatory issues can cover a wide range of areas. To ensure full compliance, it is recommended that early contact and frequent consultation be made with all the appropriate agencies.