

**JURISDICTIONAL DELINEATION OF WATERS OF THE U.S.,  
INCLUDING WETLANDS ON THE CALIFORNIA COAST: LEGAL AND  
ECOLOGICAL PROTOCOLS FOR DIVERSE AND CHANGING  
LANDSCAPES**



A Training Course Offered By:  
Elkhorn Slough Coastal Training Program  
In Cooperation with:  
National Wetland Science Training Cooperative,  
a division of  
Ecosystem Science & Natural Resource Management Services  
WSP Environment & Energy



November 17 - 21, 2008  
Moss Landing Marine Laboratories  
and the  
Elkhorn Slough National Estuarine Research Reserve  
Northern Monterey County, California

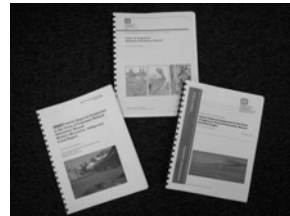


**Objectives**

The chief objective of the training will be to provide participants with a comprehensive, lecture and field-based introduction to delineation of Waters of the United States, including wetlands.

The technical foundations for the course will be:

1. The 1987 "Corps Of Engineers Wetlands Delineation Manual,"
2. The "Regional Supplement to the Corps of Engineers Wetland Delineation Manual : Arid West Region,"
3. The "Draft Regional Supplement to the Corps Of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region."



**To Accomplish The Overall Course Objectives,  
Segments Of The Agenda Will Focus on:**

- a) Recognition and description of hydrologic indicators of wetland conditions on California's central coast
- (b) Identification and characterization of hydric soils and soil-forming processes characteristic to wetland sites in central, coastal California
- (c) Identification and characterization of hydrophytic plant communities typical to wetlands on California's central coast

**To Accomplish The Overall Course Objectives,  
Segments Of The Agenda Will Focus on:**

- (d) Synthesis of hydrologic, soils, and plant community information for jurisdictional delineation of relatively pristine as well as highly degraded wetlands on California's central coast consistent with
  1. The 1987 Corps Of Engineers Wetlands Delineation Manual
  2. The "Regional Supplement to the Corps of Engineers Wetland Delineation Manual; Arid West Region," and the Draft Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region."
  3. Current federal, state (including California Coastal Commission) and local agency policies and operating procedures.
- (e) Balancing ecological and administrative techniques for
  - (1) Documentation and/or presentation of delineations of Waters of the U.S., including wetlands in light of recent guidance ref. determination of the extent of federal jurisdiction (SWANCC, Rapanos, etc.)
  - (2) Recognition and documentation of non-compliance with federal, California and local waters/wetlands protection statutes.

**Health & Safety**

**Our Policy Is That**

**Health & Safety Comes First!!**

Everybody In This Course Is A Health & Safety Specialist

Use Behavior -Based Thinking To Anticipate And Deal With Safety& Health Issues

Use The Buddy System

1. Busses – not your car
2. Food
3. Equipment
4. Health
5. Liability Release

(Safety leads = Grey Hayes, Andrew Harley, Kate Knox; Esa Crumb)



## Our Teaching Approach

Combinations of lecture and field examples

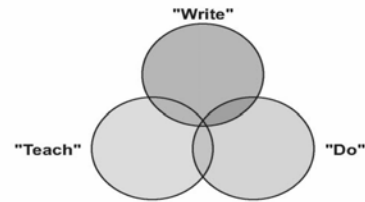
A "hands-on" approach

A wide range of field sites and conditions offered in the vicinity

Incrementally more difficult field conditions & participant responsibility

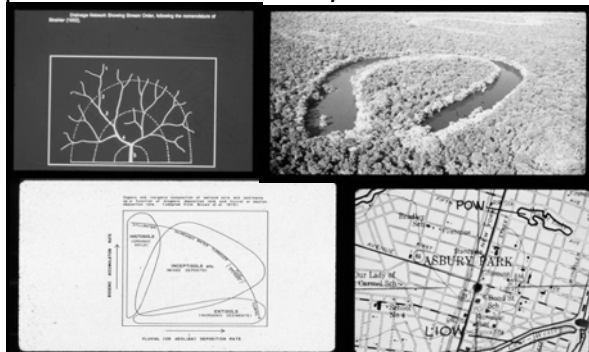
An interdisciplinary Team Of Experienced Instructors

## Restoration Ecology

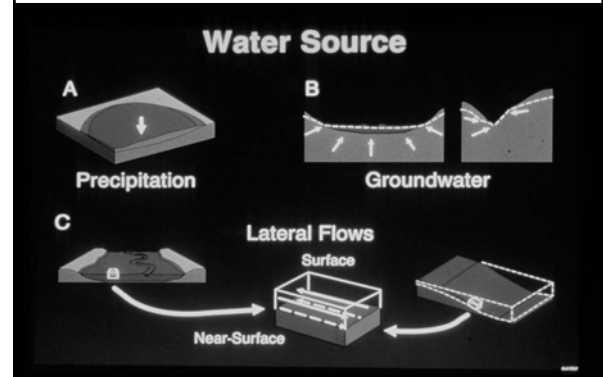


BBL  
BIOLOGICAL BARRIERS  
LABORATORY

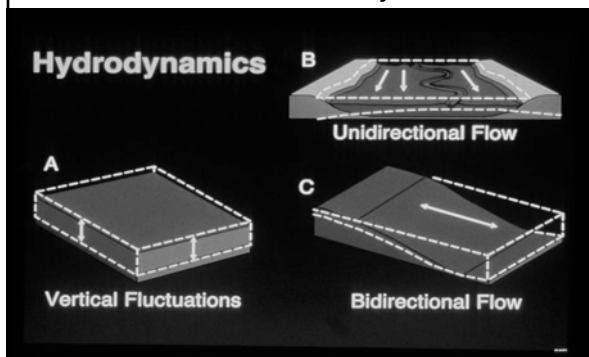
## Your Instructor Team Wants To Show You - How To Figure Out & Describe Where You Are On The Landscape



## How To Figure Out & Accurately Describe Where Water Comes From



## And How Water Moves Through Waters/Wetland Ecosystems

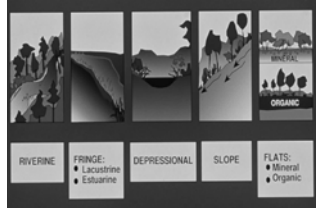


## We Want To Show You That All Waters/Wetlands Are Not The Same....Hydrogeomorphic Classes of Waters/Wetlands

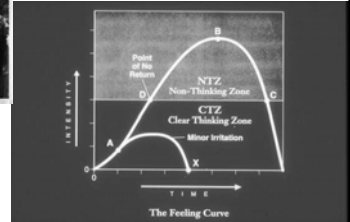


*It Follows That Different Classes of Waters/Wetlands Perform Different Functions*

- Riverine
- Depressional
- Fringe
  - Estuarine
- Riverine
  - Lacustrine
- Slope
- Flats
  - Organic Soils
  - Mineral Soils



***Delineations Are Not About Mystery, Beliefs, Or Feelings***



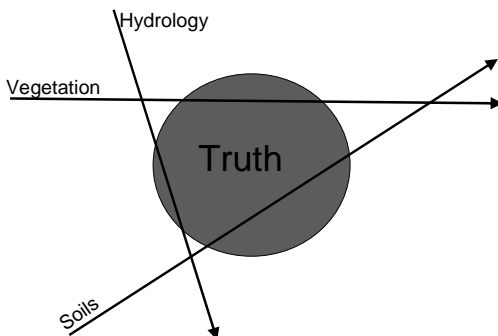
***“There Is No Substitute For Field Time”  
(George Herman Ruth)***



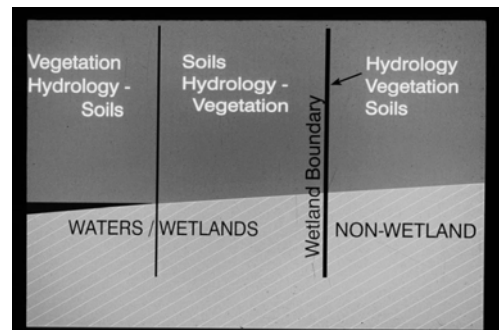
***How And When To Use The Right Gear***



**The Three Parameter Approach**



***We Will Help You Figure Out & Describe How Parameters “Weigh In” Differently Along Complex Gradients Of Site Water Balance, Soil Structure and Morphology, and Plant Community Structure & Assembly***



How to Figure Out If and How Wetlands Are Connected To "Traditionally Navigable Waters" & If Their Presence/Functioning Provides A "Significant Nexus" For Maintaining The Physical, Biological And Chemical Integrity Of Downstream Waters/Wetlands  
[Malibu Creek Estuary, Malibu California – 1932]



We Want To Help You Recognize And Sort Out Naturally Problematic & Significantly Disturbed (by Humans) Conditions In Waters/Wetlands Ecosystems...



How To Recognize A Discharge Of Pollutants To Waters of the U.S., Including Wetlands



How To Recognize Normal Farming, Ranching, & Silvicultural Practices



**We Want You To Know That A Well Done Delineation Of Waters/Wetlands Consists Of:**

1. Physical and/or electronic Flags/Stakes/Markers in the field
2. A map surveyed/registered to the property/project boundaries
3. Data sheets – documenting what you observed
4. A Report Summarizing 1-3 above

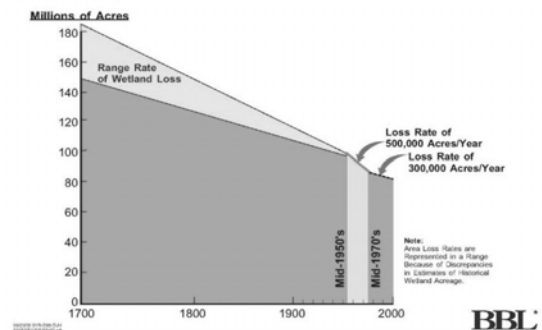
Your Instructor Team Wants to Show You That...With The Proper Training & Some Practice, You Can Hold Your Own Against Formidable Odds....



**Historical Perspectives & Regulatory Background:  
A Brief History of Interactions Among The Interstate  
Commerce Clause, Dredge And Fill Regulations, and  
Waters/Wetlands In the U.S.**



**Historical Estimated Loss of Wetlands in the Conterminous United States**



**Constitutional Basis  
(1787)**

*U.S. Constitution, Article I, §8, cl. 3, the  
"Commerce Clause"*

*The Congress shall have the power ... [t]o  
regulate commerce ... among the several  
States ..."*

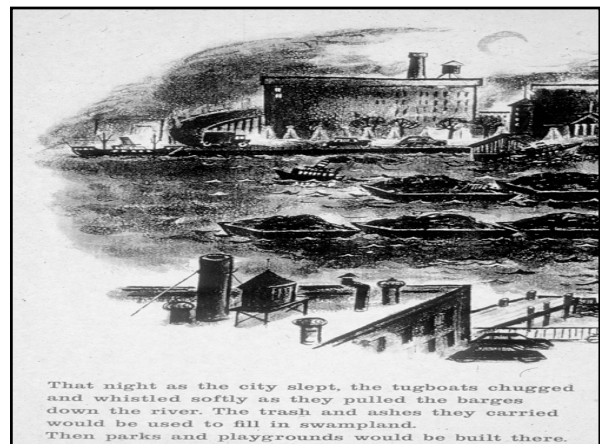
**1819 – *McCulloch v. Maryland***

The "federal government is acknowledged by all to be one of enumerated powers. The principle, that it can exercise only the powers granted to it ... is now universally admitted. But the question respecting the extent of the powers actually granted, is perpetually arising, and will probably continue to arise, as long as our system shall exist."

**So What Is "Interstate Commerce"**

1824 – *Gibbons v. Ogden*: "The commerce power 'is the power to regulate; that is, to prescribe the rule by which commerce is to be governed. This power, like all others vested in congress, is complete in itself, may be exercised to its utmost extent, and acknowledges no limitations, other than are prescribed in the Constitution."

...It is not intended to say that these words comprehend that commerce, which is completely internal, which is carried on between man and man in a State, or between different parts of the same State, and which does not extend to or affect other States. Such a power would be inconvenient, and is certainly unnecessary."



## 1899 – Rivers & Harbors Act



- **Section 10** – Prohibits the creation of any obstructions...to navigation
- **Section 13** – Prohibits discharging into navigable waters... any refuse of any kind...

## Interstate Commerce Re-Definition

1914 – *Shreveport Rate Cases*: but if interstate and intrastate aspects of commerce were so mingled together that full regulation of interstate commerce required incidental regulation of intrastate commerce, then the Commerce Clause authorized such regulation

1937 – *NLRB v. Jones & Laughlin Steel Corp.* – intrastate activities that have “such a close and substantial relation to interstate commerce that their control is essential ... to protect that commerce from burdens and obstructions” are within Congress’ power to control

## 1937 - A Big “However” for Interstate Commerce

The scope of commerce power must be considered in light of our dual system of government and may not be extended to effects “so indirect and remote” that to embrace them would “obliterate the distinction between what is national and what is local and create a completely centralized government” (*Jones & Laughlin Steel Corp.*)

## Additional Shaping of the Definition of Commerce

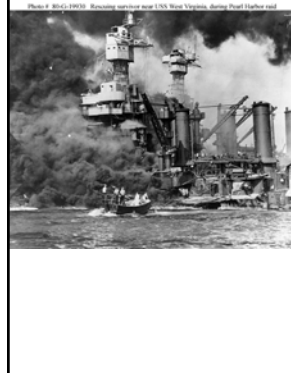
1941 - *U.S. v. Darby* – power of Congress is not confined to the regulation of commerce among the states but extends to intrastate activities which “so affect” interstate commerce as to make regulation an appropriate means to the regulation of interstate commerce



## 1942 – *Wickard v. Filburn*

The commerce power is not confined in its exercise to the regulation of commerce among the states. It extends to those activities intrastate which so affect interstate commerce, or the exertion of the power of Congress over it, as to make regulation of them appropriate means to the attainment of a legitimate end, the effective execution of the granted power to regulate interstate commerce.

## 1938 – 1946 World War II & Growing Concern For Great Lakes Pollution



*U.S. Federal Water Pollution Control Act or  
"Clean Water Act"  
[33 CFR]*

**1942 - 1945 (Drafted)**

**1948 - Promulgated...in Response to  
Great Lakes Pollution & Concern for  
creating "swimmable, drinkable water"**

***U.S. Federal Clean Water Act  
(33CFR) - Preamble***

*The principal goal of the Clean Water Act is*

*".....to restore and maintain the physical,  
chemical, and biological integrity of the  
nation's waters....."*

*U.S. Army Corps of Engineers  
(33 CFR 328.3 [b]) Definition of "Waters of the U.S."*

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;

*U.S. Army Corps of Engineers  
(33 CFR 328.3 [b]) Definition of "Waters of the U.S."*

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 be used by interstate or foreign travelers for recreational 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;

*U.S. Army Corps of Engineers  
(33 CFR 328.3 [b]) Definition of "Waters of the U.S." (2)*

4. All impoundments of waters otherwise defined as waters of the United States under the definition;
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.
8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA."

***FEDERAL WATER POLLUTION CONTROL ACT – 1948  
(Also known as the Clean Water Act)  
Substantially amended 1972, 1975, & 1987***

**Section 401 – "Water Quality Certification"**

Requires any applicant to obtain a federal license or permit to conduct activities which may result in discharges to waters of the U.S. Applicant must provide the licensing agency with a certification from the state where the activity is conducted (or EPA) that the discharge will comply with state Water Quality Standards.

*Usually handed off to the states (e.g. California Regional Water Quality Control Boards) with federal oversight...*

## Clean Water Act-Section 402

- a. Regulates “solid waste” materials
- b. Includes the National Pollutant Discharge Elimination System (NPDES)
  - Requires a permit for every point source discharge of pollutants—including waste heat—into navigable waters of the U.S.



## CLEAN AIR ACT – 1963 (Substantially amended 1970 & 1990)

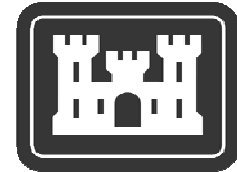
**Section 309** – Gives EPA commission to review and comment in writing on the environmental impact (including impacts to waters of the United States) of various activities to be taken by other federal departments and agencies.

## NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) - 1969

Requires environmental impact statements (EIS) for any federal project (or project requiring a federal permit) which may have significant adverse effects on the environment.

## U.S. Federal Clean Water Act – 1972 Amendments - Addition of Section 404

1. Shared US EPA and US Army Corps of Engineers Administration
  - Section 404(a) (Operations) – Corps
  - Section 404 (b) (Oversight) – EPA
  - Section 404 (c) (Veto Authority) – EPA
2. Regulates “.....discharges of pollutants to waters of the U.S.”
3. Rebuttable Presumption: Any discharge of pollutants to waters is “significant degradation”
4. “Fill materials” are defined as pollutants
5. The term “wetlands” was not used....



## MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT – 1972 (Also known as the Ocean Dumping Act)

**Section 103** – Requires a permit from EPA to dump pollutants into ocean waters of the United States.

## ENDANGERED SPECIES ACT - 1973

**Section 7** – Requires all federal departments and agencies to make sure actions authorized, funded, or carried out by them do not jeopardize the continued existence of listed endangered species and threatened species or result in the destruction or modification of habitat of such species which is determined to be critical.





## ***Federal Register (1975) – wetlands were defined as....***

*“those land and water areas subject to regular inundation by tidal, riverine, or lacustrine flowage. Included are inland and coastal shallows, marshes, mudflats, estuaries, swamps, and similar areas in coastal and inland navigable waters...”*

## ***1977 – Clean Water Act Revisions***

1. Wetlands were mentioned, but not in conjunction with Section 404 permits.
2. Section 404(g)(1) – provides that a governor of a state could administer a dredge and fill permit program other than for navigable waters used for interstate transport “including wetlands adjacent thereto.”
3. July 1, 1977 – Phasing over all waters of the US complete
4. July 19, 1977 – New wetlands definition appears
5. Section 404 (b)(1) Guidelines Issued

## ***1977 Executive Orders From Jimmy Carter***

### ***Order 11988***

Orders federal agencies to take floodplain management into account when formulation or evaluating any activities in the floodplain, and shall require land and water resources use appropriate to the degree of hazard involved. Protection of the public health and the environmental integrity of floodplains are the goals of the order.

### ***Order 11990***

Orders federal agencies to protect wetland resources to preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies responsibilities.

## ***Time Marches On....***

1979 –

- a. Civiletti Decision – Jurisdiction MOA
- b. Society of Wetland Scientists Formed

1980 –

- a. Ronald Regan Elected – paperwork reduction

1981 –

- a. EPA – 404 (b) (1) guidelines reissued
- b. Avoyelles Sportsman's League v. Alexander – Criteria for wetland identification = water, soils, vegetation

1982 -

- a. New Corps Regulations
- b. Nationwide Permitting
- c. New 404(q) Procedures
- d. NWF v. Marsh – Makes the 404(b)(1) Guidelines mandatory

## ***2007 Nationwide Permits***

*Federal Register / Vol. 72, No. 47 / Monday, March 12, 2007 / Notices / pp. 11180-11181*

<b>NWP 1</b> Aids to Navigation	<b>NWP 14</b> Linear Transportation Projects
<b>NWP 2</b> Structures in Artificial Canals	<b>NWP 15</b> U.S. Coast Guard Approved Bridges
<b>NWP 3</b> Maintenance	<b>NWP 16</b> Return Water from Upland Contained Disposal Areas
<b>NWP 4</b> Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities	<b>NWP 17</b> Hydropower Projects
<b>NWP 5</b> Scientific Measurement Devices	<b>NWP 18</b> Minor Discharges
<b>NWP 6</b> Survey Activities	<b>NWP 19</b> Minor Dredging
<b>NWP 7</b> Outfall Structures and Associated Intake Structures	<b>NWP 20</b> Oil Spill Cleanup
<b>NWP 8</b> Oil and Gas Structures on the Continental Shelf	<b>NWP 21</b> Surface Coal Mining Activities
<b>NWP 9</b> Structures in Fleeting and Anchorage Areas	<b>NWP 22</b> Removal of Vessels
<b>NWP 10</b> Mooring Buoys	<b>NWP 23</b> Approved Categorical Exclusions
<b>NWP 11</b> Temporary Recreational Structures	<b>NWP 24</b> Indian Tribe or State Administered Section 404 Programs
<b>NWP 12</b> Utility Line Activities	<b>NWP 25</b> Structural Discharges
<b>NWP 13</b> Bank Stabilization	

## ***2007 Nationwide Permits cont.***

*Federal Register / Vol. 72, No. 47 / Monday, March 12, 2007 / Notices / pp. 11180-11181*

<b>NWP 26</b> [Reserved]	<b>NWP 39</b> Commercial and Institutional Developments
<b>NWP 27</b> Aquatic Habitat Restoration, Establishment, and Enhancement Activities	<b>NWP 40</b> Agricultural Activities
<b>NWP 28</b> Modifications of Existing Marinas	<b>NWP 41</b> Reshaping Existing Drainage Ditches
<b>NWP 29</b> Residential Developments	<b>NWP 42</b> Recreational Facilities
<b>NWP 30</b> Moist Soil Management for Wildlife	<b>NWP 43</b> Stormwater Management Facilities
<b>NWP 31</b> Maintenance of Existing Flood Control Facilities	<b>NWP 44</b> Mining Activities
<b>NWP 32</b> Completed Enforcement Actions	<b>NWP 45</b> Repair of Uplands Damaged by Discrete Events
<b>NWP 33</b> Temporary Construction, Access, and Dewatering	<b>NWP 46</b> Discharges in Ditches
<b>NWP 34</b> Cranberry Production Activities	<b>NWP 47</b> Pipeline Safety Program Designated Time Sensitive Inspections and Repairs
<b>NWP 35</b> Maintenance Dredging of Existing Basins	<b>NWP 48</b> Existing Commercial Shellfish Aquaculture Activities
<b>NWP 36</b> Boat Ramps	<b>NWP 49</b> Coal Remining Activities
<b>NWP 37</b> Emergency Watershed Protection and Rehabilitation	<b>NWP 50</b> Underground Coal Mining Activities
<b>NWP 38</b> Cleanup of Hazardous and Toxic Waste	

## 1984 At The Corps & In The Courts

First Drafts Of Wetland Delineation Manuals (R.T. Huffman)

*Utah v. Marsh* – jurisdiction is proper over a lake located entirely within the borders of a state because it was “on the flyway of several species of migratory waterfowl” (the universal “duck test”).

*Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.* – an agency’s construction of a statute that it is charged with enforcing is entitled to deference.

## 1985 - What Are The Limits Jurisdiction?

*U.S. v. Riverside Bayview Homes* – by defining “navigable waters” as “waters of the United States,” Congress intended to “exercise its powers under the Commerce Clause to regulate at least some waters that would not be deemed ‘navigable’ under the classical understanding of that term” so jurisdiction is valid over wetlands that actually abutted a navigable waterway.

1986 - Definition Of Fill – [Memorandum Of Agreement Between EPA and the Corps (January 17, 1986)]



## 1986 – Migratory Bird Rule

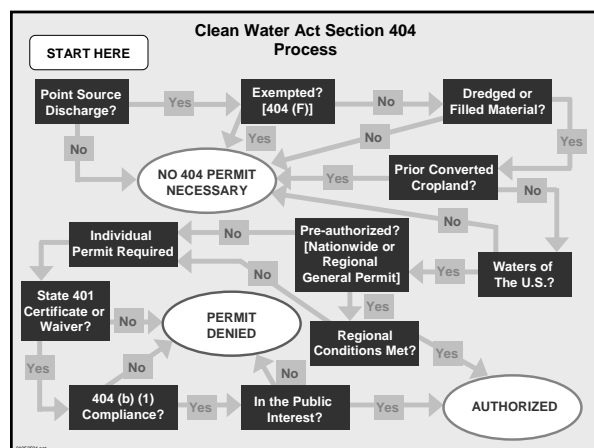
The Migratory Bird Rule – 33 USC §404(a) extends to intrastate waters which are or would be used as habitat by birds protected by Migratory Bird Treaties, or which are or would be used as habitat by other migratory birds which cross state lines, or which are or would be used as habitat for endangered species.

## 1987

### Clean Water Act Amendments

### Section 309(g) (Clean Air Act) Administrative Penalty Policy

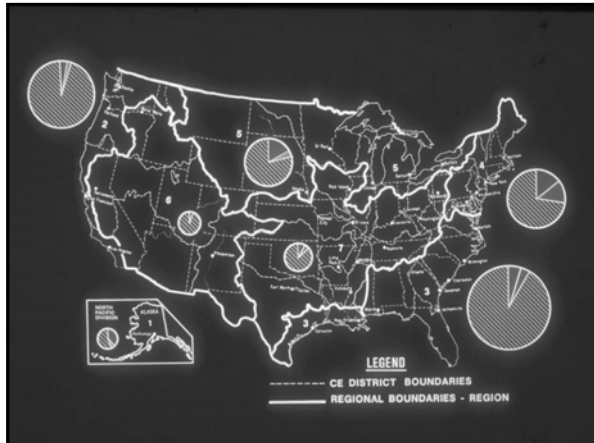
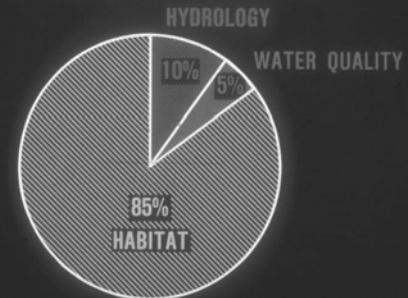
### 1987 Corps of Engineers Wetlands Delineation Manual



**1987 - The Clean Water Act "Section 404 Process" Emerges As A Hierarchy...**

1. Waters/Wetlands Jurisdiction
2. Water Dependency
3. Alternatives Analysis
4. Impact Assessment
5. Impact Minimization
6. Mitigation

**TOPICAL DISTRIBUTION OF WETLANDS LITERATURE**



**1988 (to 1995) In The Courts...**

**The Ninth Circuit**

Leslie Salt I: District court opinion; no jurisdiction over man-made surface depressions that could be used by migratory birds.

Leslie Salt II: Court of Appeals opinion; commerce clause is broad enough to extend jurisdiction to local waters that may provide migratory bird habitat.

Leslie Salt III: District court opinion; property was home to 50 species of migratory birds so there was jurisdiction.

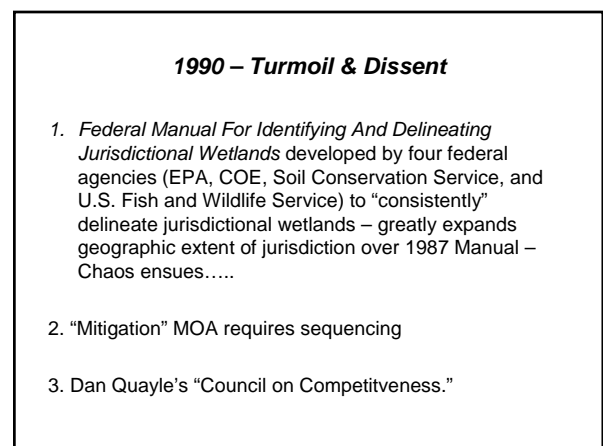
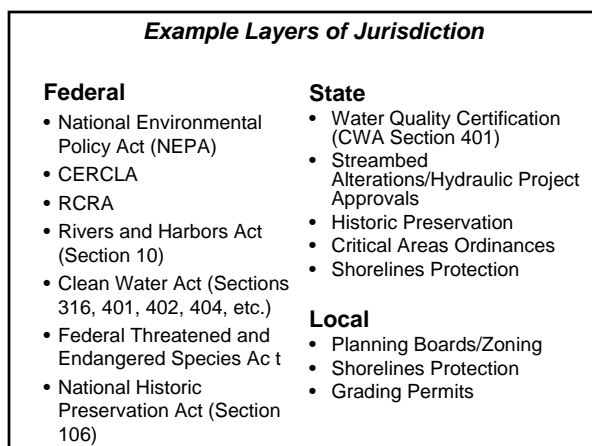
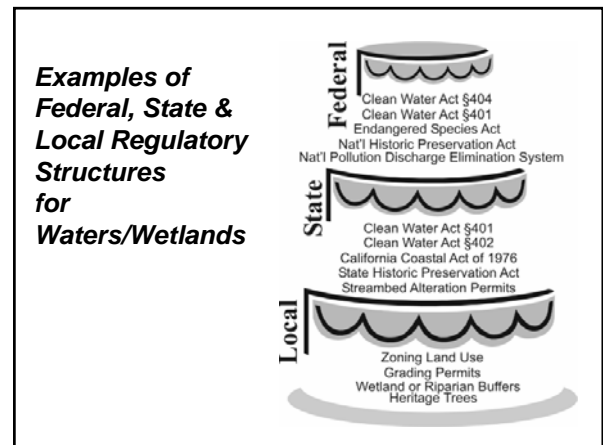
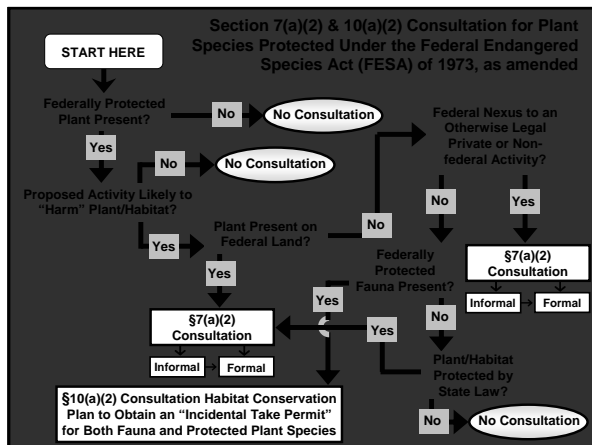
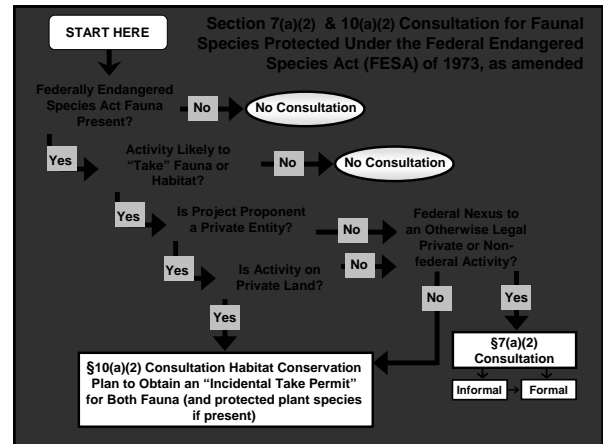
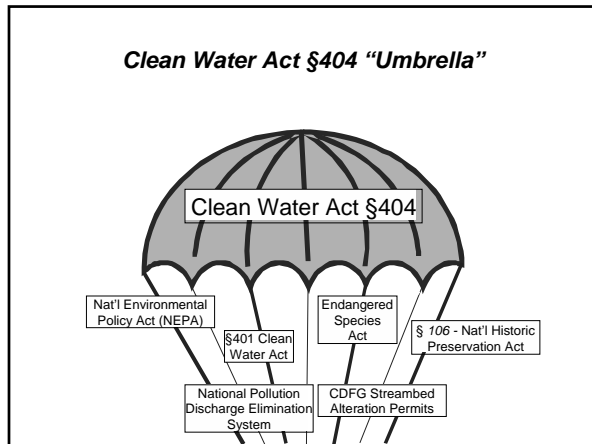
Leslie Salt IV: Court of Appeals opinion; migratory bird rule is a valid exercise of federal commerce clause power.

**1988 – Increased Organization**

1. EPA Office Of Wetlands protection Is Formed From Office Of Federal Activities
2. Great Emphasis On Coordination With States and Local Jurisdictions
3. Articulation Of The 404 Process Is A Precursor to Clean Water Act – Section 404 - "Sequencing Requirements" (AM&M)
  - Avoid...impacts to waters/wetlands
  - Minimize...unavoidable impacts to waters/wetlands
  - Mitigate...unavoidable impacts to waters/wetlands to achieve no net loss of area &/or functioning
4. National Wetlands Policy Forum Recommends "No Net Loss Of Wetland Area and/or Functioning" to candidates Bush & Dukakis, winner Bush Adopts Policy....

**1988 – Definition Of "Modes of Operation" For Federal Clean Water Act Section 404 Waters/Wetlands Regulatory Programs**

1. "Before-the-project" permits (individual, general, etc.)
2. Advance identification (230.80)
3. Hand-off to states, tribes, counties, municipalities, etc. (e.g. New Jersey)
4. "After-the-fact" enforcement/non-compliance
5. Functional equivalency (CERCLA, Corps Flood Control Projects, etc)



**August 24 & 25, 1993 - In The Administration,  
At The Corps**

**8/24 - CLINTON ADMINISTRATION WETLAND POLICY**

Protecting America's Wetlands: A Fair, Flexible, and Effective Approach"

**8/24 - REVISION TO DEFINITION OF "DEGRADE" 33 CFR 323.2(d-e) AND 40 CFR 232.2(e)**

An activity "degrades" a water or wetland "if it has more than a *de minimus* (i.e. inconsequential) effect on the area by causing an identifiable individual or cumulative adverse effect on any aquatic function."

**8/25 - REVISION TO DEFINITION OF "DISCHARGE OF DREDGED MATERIAL" 33 CFR 323.2(d) AND 40 CFR 232.2(e)** "Discharge of dredged materials" includes "any addition, including any redeposit, of dredged material, including excavated material, into Waters of the United States which is incidental to any activity, including mechanized land clearing, ditching, channelization, or other excavation."

**1993 – In The Courts...**

Seventh Circuit - *Hoffman Homes v. USEPA* – "The migratory birds are better judges of what is suitable for their welfare than we are..." so no jurisdiction if there is no evidence of actual use by migratory birds. ( "the reasonable bird test").

**1995 – In The Courts - A Warning Shot  
Across the Bow**

*U.S. v. Lopez* – "To uphold the Government's contentions here (forbidding the possession of handguns in local school zones), we would have to pile inference upon inference in a manner that would bid fair to convert congressional authority under the Commerce Clause to a general police power of the sort retained by the States."

**1997 - Redefinition/Churning Ref.  
Geographic Extent Of Waters of the U.S.**

**The Fourth Circuit - *U.S. v. Wilson* – 33 CFR §328.3(a)(3)** ... "purports to extend the coverage of the Clean Water Act to a variety of waters that are intrastate, nonnavigable, or both, solely on the basis that the use, degradation, or destruction of such waters *could* affect interstate commerce. The regulation requires neither that the regulated activity have a *substantial* affect on interstate commerce, nor that the covered waters have any sort of nexus with navigable, or even interstate, waters." Thus 33 CFR §328.3(a)(3), which "defines 'waters of the United States' to include intrastate waters that need have nothing to do with navigable or interstate waters, expands the statutory phrase 'waters of the United States' beyond its definitional limits."

**1998 – No More "Reasonable Birds"....**

The Seventh Circuit – *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* – (The SWANCC Decision) "This court respectfully declines to follow the majority in *Wilson*. Because the scope of federal regulatory jurisdiction under the Clean Water Act is coextensive with that of the commerce clause, and because the commerce clause authorizes the federal regulation of intrastate migratory bird habitats, the migratory bird rule must be a valid application of the Clean Water Act." Besides, "... millions of Americans cross state lines and spend over a billion dollars to hunt and observe migratory birds."

2001 – The Supreme Court – *SWANNC v. USACE* – 33 CFR §328.3(a)(3), "as clarified and applied ... exceeds the authority granted to [the Corps] under §404(a) of the CWA."

**2000 - 2001**

1. GW Bush elected
2. SWANCC In Supreme Court
3. Revision of Nationwide Permits
4. National Academy Publications

**2001 – How Are We Doing? ...Results Of the National Academy Study**



***Compensating for Waters/Wetland Losses Under the Clean Water Act***  
(National Academy of Science, 2001)

The Committee's Principle Findings:

*Conclusion 1:* The goal of no net loss of wetlands is not being met for wetland functions by the mitigation program, despite progress in the last 20 years.

*Conclusion 2:* A watershed approach would improve permit decision making.

***Compensating for Waters/Wetland Losses Under the Clean Water Act***  
(National Academy of Science, 2001)

The Committee's Principle Findings:

*Conclusion 3:* Performance expectations in Section 404 permits have often been unclear, and compliance has often not been assured nor attained.

*Conclusion 4:* Support for regulatory decision making is inadequate.

*Conclusion 5:* Third-party compensation approaches (mitigation banks, in-lieu fee programs) offer some advantages over permittee-responsible mitigation.

***Compensating for Waters/Wetland Losses Under the Clean Water Act***  
(National Academy of Science, 2001)

**CONCLUSION**

"The Clean Water Act Section 404 program should be improved to achieve the goal of no net loss of wetlands for both area and functions. The above recommendations will help to achieve this goal. It is of paramount importance that the regulatory agencies consider each permitting decision over broader geographic areas and longer time periods, i.e., by modifying the boundaries of permit decision making in time and space."

**2002 – 2007 - Uncertainty**

1. 2002 - Guidance on compensatory mitigation (RGL No. 02-2)
2. 2004 – Mitigation Guidance Ref. On and Off site Approaches
3. 2006 – Rapanos decision by U.S. Supreme Court – requiring hydrologic connection(s) &/or Significant nexus tests
4. 2007 –
  - a. Rapanos Guidance issues by EPA & Corps
  - b. Regional Delineation Manual Supplements distributed – (e.g Arid West and WMVC)
5. 2008
  - a. EPA & Corps issue guidance to use Arid West and WMVC Supplements
  - b. EPA & Corps Issue Mitigation Guidance
  - c. Barack Obama Elected President.....