



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Clean Air Act Criteria Pollutants

Clean Air Act - Criteria Pollutants

“Criteria pollutants” for agriculture are excessive concentrations of particulate matter and ozone in the atmosphere that may adversely impact human health.

What is it?

Criteria pollutants are those contaminants in the atmosphere for which U.S. EPA has used health-based criteria to establish National Ambient Air Quality Standards (NAAQS). The U.S. EPA has currently promulgated NAAQS for six criteria air pollutants, but the primary criteria pollutants of concern for agriculture are particulate matter and ozone.

Why is it important?

The NAAQS are intended to represent the maximum concentration of a particular pollutant in the ambient air that will not adversely impact public health or welfare, which includes aesthetic, economic, and other non-health effects. Areas that are designated as nonattainment, meaning that concentrations of a criteria pollutant are not in compliance with the NAAQS, are subject to greater regulatory scrutiny than areas that are in compliance with the NAAQS (i.e., attainment areas). Sources that are considered to contribute to an area’s nonattainment status will be subject to more stringent control and permitting requirements. Requirements for each nonattainment area vary and are tailored to the specific needs of the nonattainment area.

What can be done about it?

Ozone is not typically emitted directly from air pollutant emission sources. Rather, it is formed in the atmosphere by chemical reactions. As such, emissions of oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) are regulated as precursors to ozone formation instead. Particulate matter may be either emitted directly, such as dust or smoke, or formed in the atmosphere from other pollutants, such as ammonia, NO_x, VOCs, and sulfur dioxide (SO₂). Agriculture does not produce significant amounts of SO₂, so reducing emissions of directly-emitted particulate matter, NO_x, ammonia, and VOCs from agricultural sources will help to mitigate agriculture’s contribution to concentrations of particulate matter and ozone in the ambient air.

Clean Air Act - Criteria Pollutants at a Glance

Problems / Indicators - Nonattainment area for ozone and/or particulate matter	
Causes	Solutions
<ul style="list-style-type: none"> Dust emissions Poor smoke management Wind erosion Ammonia release VOC emissions NO_x emissions 	<ul style="list-style-type: none"> Dust control, windbreaks Proper smoke management Maintain surface residue/cover Proper manure management Proper nutrient management Follow state/local permitting guidance and procedures

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility Degradation

Clean Water Act

Coastal Zone Management Areas

Coral Reefs

Cultural Resources

Endangered and Threatened Species

Environmental Justice

Essential Fish Habitat

Floodplain Management

Invasive Species

Migratory Birds

Prime and Unique Farmlands

Riparian Areas

Wetlands

Wild and Scenic Rivers

Clean Air Act Regional Visibility Degradation

Clean Air Act - Regional Visibility Degradation

The Clean Air Act recognizes the issue of “regional visibility degradation” as excessive concentrations of particulate matter and other pollutants in the atmosphere that degrade visibility in national parks and other “Class I areas”.

What is it?

Regional visibility degradation occurs when concentrations of particulate matter, oxides of nitrogen (NO_x), and sulfur dioxide (SO₂) in the atmosphere hinder the ability to view distant objects or vistas. Of these, the primary visibility-degrading pollutants of concern for agriculture are particulate matter and NO_x.

Why is it important?

Class I areas are areas of national or regional natural, scenic, recreational, or historic value that are given special protection under the Clean Air Act. One of these special protections is preservation of the visibility of scenic vistas within the Class I areas. EPA has developed the Regional Haze Rule that directs states to establish goals for improving visibility in national parks and wilderness areas. States are required to develop long-term strategies for reducing emissions of air pollutants that cause visibility impairment. The goals and requirements vary by state and by Class I area.

What can be done about it?

Reducing agricultural emissions that contribute to increased concentrations of particulate matter and NO_x in the air, especially from sources near a Class I area, will help mitigate agriculture’s contribution to regional haze issues. These emissions include directly-emitted particulate matter, such as dust and smoke, and NO_x. Additionally, emissions of ammonia and volatile organic compounds (VOCs), as well as NO_x, can contribute to fine particulate matter formation in the atmosphere. Many common NRCS practices can be used address agriculture’s contribution to regional visibility degradation by reducing emissions of these pollutants.

Clean Air Act - Regional Visibility Degradation at a Glance

Problems / Indicators - Regional haze and poor visibility of scenic areas	
Causes	Solutions
<ul style="list-style-type: none"> Dust emissions Poor smoke management Wind erosion NO_x emissions Ammonia emissions VOC emissions 	<ul style="list-style-type: none"> Dust control, windbreaks Proper smoke management Maintain surface residue/cover Proper maintenance and operation of combustion sources Proper nutrient and manure management Reductions in pesticide use



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Clean Water Act

Clean Water Act and Waters of the U.S.

The Federal Water Pollution Control Act of 1972 is today known as the Clean Water Act (CWA). The U.S. Army Corps of Engineers (Corps) and the States administer the various sections of the CWA with the oversight of the Environmental Protection Agency (EPA).

What is it?

The CWA established several programs to regulate and reduce discharges of pollutants into waters of the United States (including wetlands). Although the list of pollutants is long, those most frequently associated with the term include fill material, sediment, excess nutrients, and harmful bacteria. Although the landowner is responsible for obtaining appropriate permits prior to project implementation, NRCS often assists to expedite the coordination process.

Why is it important?

Section 404 of the CWA is the section that most often affects NRCS activities, although consideration must also be given to Sections 401, 402, and 303. Close coordination throughout the planning process can prevent significant delays in processing the permit application.

Section 404: Established a permit program to regulate the discharge of dredged and fill material into waters of the U.S. Discharge of dredged or fill material into waters of the U.S. is prohibited unless the action is exempted or is authorized by a permit issue by the Corps or by the State.

Section 401: Requires that before a 404 permit can be issued for an activity, the State (or Tribe) in which the activity will occur must certify that the activity will not violate State water quality standards (Section 401 State Water Quality Certification)

Section 402: Establishes the National Pollutant Discharge Elimination System (NPDES) Program, which the States also administer. This requires a permit for sewer discharges and storm water discharges from developments, construction sites, or other areas of soil disturbance.

Section 303: Requires States, territories, and Tribes to identify "impaired waters" and to establish total maximum daily loads (TMDLs).

What can be done about it?

To effectively fulfill our Section 404 responsibilities to the CWA and to prevent project delays, coordination with the Corps, EPA and/or appropriate State agencies is essential. Along with ensuring that the landowner obtains appropriate permits, NRCS should also consider impacts of proposed actions on streams included on States' 303(d) lists and plan accordingly.

Clean Water Act and Waters of the U.S. at a Glance

Problems / Indicators - Potential discharges of pollutants into waters of the U.S.	
Causes	Solutions
<ul style="list-style-type: none"> • Ground disturbing activities near U.S. Waters • Riparian and/or In-stream/aquatic activities • Wetland conversions/alterations/land clearing • Water or waste discharges 	<ul style="list-style-type: none"> • Maintain adequate surface cover/residue • Follow permitting guidance and procedures • Consultation with USFWS and/or NMFS • Nutrient and pest management, other mitigation practices

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Coastal Zone Management Areas

Coastal Zone Management Areas

Coastal zone management areas (CZMAs) are areas located within or near the officially designated “coastal zone” of a State. The National Oceanic and Atmospheric Administration’s (NOAA’s) Office of Coastal Zone Management approves coastal programs, and not all coastal States have a CZMA.

What is it?

CZMAs are: 1) coastal waters and adjacent shorelines, including the lands or waters inside and under those zones, and 2) areas that strongly influence adjacent coastal zones of the 35 States that have coastal zone management programs. Examples include “transitional” and intertidal areas, such as salt marshes, freshwater wetlands, and beaches, and also connecting waters, harbors, and estuarine areas, such as bays, shallows, and marshes, as well as those waters adjacent to the shorelines, including but not limited to sounds, bays, lagoons, bayous, ponds, and the estuaries themselves. CZMAs can extend seaward to the outer limit of the United States territorial sea (generally 200 miles). Inland, the coastal area extends only to the extent necessary to control land uses that have a direct and significant impact (effect) on coastal waters.

Why is it important?

Section 307 of the Coastal Zone Management Act specifies that actions or activities within the coastal zone done by a Federal agency or on behalf of or through a Federal agency must be consistent with the State’s coastal zone management plan. Therefore, NRCS planning must be consistent with the State’s coastal plan and be in concert with the goals, tenets, and objectives of that plan. On March 9, 1993, a letter was jointly signed by the Soil Conservation Service, the Agricultural Stabilization and Conservation Service, and the Extension Service setting forth the policies for enforcement and adoption of science- and technology-based land-management measures that eliminate or control nonpoint sources of pollution.

What can be done about it?

A current registry of CZMAs in each state should be kept in the Technical Guide. Guidance on nonpoint source pollution matters in the coastal zone is contained in EPA’s “Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters” (EPA 840-B-92-002), issued in response to the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990.

Coastal Zone Management Areas at a Glance

Problems / Indicators - Proposed action is inconsistent with State’s coastal zone management plan	
Causes	Solutions
<ul style="list-style-type: none"> • Soil Erosion (short and/or long term) • CAFO contaminates (or other point sources) • Improper nutrient and/or pesticide application • Improper livestock grazing management • Improper irrigation water management • Other point and non-point source pollution 	<ul style="list-style-type: none"> • Residue management • Cover crops • Comprehensive nutrient management plan • NPDES permit • Irrigation water management • Prescribed grazing

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012

Special Environmental Resource Concerns

Coral Reefs

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Coral Reefs

The term “Coral reefs” is defined as the species, habitats, and other natural resources associated with coral reefs in all maritime areas and zones subject to the jurisdiction or control of the United States (e.g., Federal, State, territorial, or commonwealth waters), including reef systems in the South Atlantic, Caribbean, Gulf of Mexico, and Pacific Ocean. Coral reefs are also waters of the U.S. as defined in the Clean Water Act and are subject to Section 404 permit requirements.

What is it?

Coral reefs are among the most diverse and valuable ecosystems on Earth. They are extremely vulnerable to harmful environmental changes, particularly those resulting from human activities. One of the primary threats to U.S. coral reefs is pollution from land-based sources, including runoff of nutrients and sediments from watersheds adjacent to near-shore coral reef ecosystems. Present estimates are that 10 percent of all coral reefs are degraded beyond recovery; 30 percent are in critical condition and may die within 10 to 20 years, and if current conditions continue unabated another 30 percent may perish completely by 2050.

Why is it important?

Executive Order (E.O.) 13089, Coral Reef Protection, was issued in 1998 in recognition of the importance of conserving coral reef ecosystems. The E.O. created a Coral Reef Task Force whose membership is comprised of 11 Federal agencies, including the Secretary of Agriculture. The E.O. policy states that agencies will utilize their programs and authorities to protect and enhance the conditions of coral reef ecosystems and, to the extent permitted by law, ensure that any actions authorized, funded, or carried out by the agency will not degrade these ecosystems.

What can be done about it?

Maintaining current information regarding Local Action Strategies (LASs) that identify priority actions needed to reduce key threats to valuable coral reef resources is very helpful. Florida, Hawaii, Guam, the U.S. Virgin Islands, American Samoa, Puerto Rico, and the Commonwealth of the Northern Mariana Islands created specific local action strategies for select locally relevant threats. NRCS should ensure that proposed actions consider impacts to coral reefs and, as appropriate, include conservation considerations that would enhance this valuable resource.

Coral Reefs at a Glance

Problems / Indicators - Nutrient and sediment runoff from near-shore watersheds	
Causes	Solutions
<ul style="list-style-type: none"> • Soil Erosion (short and/or long term) • CAFO contaminants (or other point sources) • Improper nutrient and/or pesticide application • Improper livestock grazing management • Improper irrigation water management • Other point and non-point source pollution 	<ul style="list-style-type: none"> • Residue management • Cover crops • Comprehensive nutrient management plan • NPDES permit • Irrigation water management • Prescribed grazing



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility Degradation

Clean Water Act

Coastal Zone Management Areas

Coral Reefs

Cultural Resources

Endangered and Threatened Species

Environmental Justice

Essential Fish Habitat

Floodplain Management

Invasive Species

Migratory Birds

Prime and Unique Farmlands

Riparian Areas

Wetlands

Wild and Scenic Rivers

Cultural Resources

Cultural Resources

In 1966, Congress passed the National Historic Preservation Act (NHPA) and directed all Federal agencies to establish a historic preservation program. NRCS has established policy, procedural references and guidance to comply with NHPA and several related authorities, including the American Indian Religious Freedom Act (42 U.S.C. Section 1996); Native American Graves Protection and Repatriation Act (25 U.S.C. Sections 3001-3013); Executive Order (EO) 13175, Consultation and Coordination with Indian Tribal Governments (2000); EO 13007, Indian Sacred Sites (1996); and a range of Executive Orders, Presidential memoranda, and secretarial memoranda.

What is it?

The term “cultural resources” as used by NRCS is considered equivalent to “historic properties” as defined by the NHPA (16 U.S.C. Section 470 et seq.) and regulations for compliance with section 106 of the NHPA (36 CFR Part 800). They include any prehistoric or historic district, site, building, structure, or object listed in or eligible for listing in the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. They also include all records, artifacts, and physical remains associated with the NRHP-eligible historic properties. The term also includes properties of traditional cultural and religious importance to an Indian Tribe or Native Hawaiian organization that meet national register criteria. They may consist of the traces of the past activities and accomplishments of people.

Why is it important?

NRCS is required to consider the effects of our actions and undertakings on NRHP eligible cultural resources and historic properties in consultation with specific parties. Consultation with State historic preservation officers (SHPO), Tribal historic preservation officers (THPO) and Federally recognized Tribes, including Native Hawaiians, as appropriate, as well as other interested parties, is required when an agency action may alter the characteristics that qualify a historic property for inclusion in the NRHP. NRCS is also required to mitigate potential adverse impacts, for example through avoidance or minimization, as appropriate.

What can be done about it?

When protected cultural resources, such as contemporary cultural properties, traditional cultural values, landscapes, or features having religious importance, may be impacted, NRCS must consult with concerned parties to ensure that historic preservation issues and the views of the public are fully considered during project planning. The outcomes of consultation are documented according to the statutes and authorities under which the cultural resources are considered.

Cultural Resources at a Glance

Problems / Indicators - Potential impacts to cultural resources and/or historic properties (“Undertakings”)	
Causes	Solutions
<ul style="list-style-type: none"> • Ground disturbing practices • Watershed/Area-Wide/Complex projects • Proposed land-use changes/conversions • Construction discoveries 	<ul style="list-style-type: none"> • Complete cultural resources investigation for site • Initiate early consultation with appropriate State/Tribal entity, as needed • Incorporate mitigation measures, as needed, in project design and specifications

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Endangered and Threatened Species

Endangered & Threatened Species & State/Tribal Species of Concern

Consistent with legal requirement of the Endangered Species Act of 1973 and NRCS policy regarding State and Tribal Species of concern, NRCS is fully committed to supporting the conservation of formally designated Federal (including "candidate" and "proposed" species), State and Tribal species of concern.

What is it?

When Congress enacted the ESA in 1973, it made several findings regarding the disappearance of various plant and animal species of the United States, the importance of these species to the Nation and its people, and the obligation of the Federal Government to conserve to the extent practicable the various species of fish, wildlife, and plants facing extinction. NRCS policy (190-GM, Part 410) also requires consideration of impacts to species protected by State or Tribal laws or regulations.

Why is it important?

Section 7(a) of ESA requires NRCS, in consultation with and with the assistance of the US Fish and Wildlife Service (USFWS) and/or NOAA National Marine Fisheries Service (NMFS), to advance the purposes of the Act by implementing programs for the conservation of endangered and threatened species, and to ensure that its actions and activities do not jeopardize the continued existence of threatened and endangered species or result in the destruction or adverse modification of the species' critical habitat. NRCS must also consult with State and/or Tribal entities when considering impacts to species of concern protected by State or Tribal laws or regulations.

What can be done about it?

In working with landowners, NRCS planners should identify and recommend alternative actions to avoid or minimize adverse impacts to at-risk species that are present or may be present within the project area and to benefit these species whenever possible. NRCS must make an initial effects determination for any endangered or threatened species, designated critical habitats, proposed species or habitats, candidate species, or State or Tribal species of concern protected by State or Tribal law or regulation. Once the effects determination has been completed, there may be a need to initiate consultation with the USFWS or NOAA-NMFS that would result in the development of negotiated "reasonable and prudent measures" (RPMs) to mitigate potential negative impacts.

Endangered & Threatened Species & State/Tribal Species of Concern at a Glance

Problems / Indicators - Potential negative impacts to Federal, State, and Tribal Species of Concern	
Causes	Solutions
<ul style="list-style-type: none"> • Land use changes/conversions • In-stream and upland restoration projects • Ground disturbing practices • Timing of project implementation • Management activities in occupied habitat 	<ul style="list-style-type: none"> • Mitigation to eliminate potential impacts during planning process • Consultation with USFWS and/or NMFS • Incorporate RPMs and conservation measures into project specifications • Establish monitoring protocols

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Environmental Justice

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Environmental Justice

Executive Order 12898, issued February 11, 1994, requires each Federal agency to make environmental justice a part of its mission. Agencies must identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations, low-income populations, and Indian Tribes.

What is it?

The term “environmental justice” means that, to the greatest extent practicable and permitted by law, all populations are provided the opportunity to comment before decisions are rendered on proposed Federal actions. Furthermore, the principles of environmental justice require that populations are allowed to share in the benefits of, are not excluded from, and are not affected in a disproportionately high and adverse manner by government programs and activities affecting human health or the environment.

Why is it important?

Environmental justice must be addressed throughout the U.S., its territories and possessions, the District of Columbia, and the Commonwealths of Puerto Rico and the Mariana Islands. These issues encompass a broad range of impacts covered by NEPA, including impacts on the natural or physical environment and related social, cultural, and economic impacts.

What can be done about it?

The primary means to attain compliance with environmental justice considerations are: 1) assessing the presence of environmental justice communities in a project area that may experience disproportionately high and adverse human health or environmental effects, and 2) the inclusion of low-income, minority, Tribal, or other specified populations in the planning process. There may be a need to develop separate Government to Government consultations to address any environmental justice issues for Tribal Governments (contact your State American Indian Emphasis Program manager). The USDA Departmental Regulation (DR) 5600-002, Environmental Justice, provides detailed determination procedures for NEPA and non-NEPA activities and suggests social and economic effects to consider when assessing whether there are disproportionately high and adverse human health or environmental effects to environmental justice communities in a project area.

Environmental Justice at a Glance

Problems / Indicators - Disproportionately high or adverse impacts to specific populations	
Causes	Solutions
<ul style="list-style-type: none"> Land use changes/conversions Area-wide/watershed/complex projects Projects involving broad scope of impacts – local/regional/national Controversial projects Human health or environmental effects that may be disproportionately high or adverse 	<ul style="list-style-type: none"> Collect demographic data from EPA, Census Bureau, other sources Initiate early government-to-government consultation with Tribes, as necessary Conduct public meeting(s) Conduct specific outreach to EJ communities Create agreements, as needed

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Essential Fish Habitat

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Essential Fish Habitat

The Magnuson-Stevens Act was originally enacted in 1976 and amended several times, the latest of which was 2006. It is the primary law governing marine fisheries management in the U.S. In 1996, the Act was amended to incorporate essential fish habitat (EFH) and rules were published in the Federal Register. It calls for heightened consideration of fish habitat in resource management decisions and direct action to stop or reverse the continued loss of fish habitats. The National Marine Fisheries Service (NMFS) implements and enforces the management measures through fisheries management plans.

What is it?

Essential fish habitats (EFHs) are areas identified as being vital for sustaining marine or anadromous fish populations. They include the waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. As amended in 1986, the Magnuson Act requires regional fisheries management councils to evaluate the effects of habitat loss or degradation on their fishery stocks and take actions to mitigate such damage.

Why is it important?

The act requires cooperation among NMFS, the councils, fishing interests, Federal and State agencies, and others in achieving the EFH goals of habitat protection, conservation, and enhancement. NRCS must consult with NMFS regarding any action or proposed action that may adversely affect an EFH.

What can be done about it?

Information of all EFH areas in each applicable state is located in Section II of the FOTG. NRCS must first assess whether a proposed action or alternative will result in short or long-term disruptions or alterations that may result in an “adverse effect” to EFH. If yes, NRCS may first consider if and how the action or alternative can be modified to mitigate potential adverse effects. If that is not possible, NRCS will have to consult with NMFS to determine measures to conserve such habitat. Following consultation, NRCS is responsible for detailing the measures that will be taken to mitigate any adverse effects to EFH and explain reasons for any actions inconsistent with the NMFS EFH recommendations.

Essential Fish Habitat at a Glance

Problems / Indicators - Potential negative impacts to essential fish habitat	
Causes	Solutions
<ul style="list-style-type: none"> • Land use changes/conversions • In-stream and upland restoration projects • Ground disturbing practices • In-stream work/practices • Timing of project implementation 	<ul style="list-style-type: none"> • Mitigation to eliminate potential impacts during planning process • Consultation with NMFS • Incorporate conservation measures into project specifications • Establish monitoring protocols

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Floodplain Management

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Floodplain Management

Executive Order (E.O.) 11988, Floodplain Management, was signed by President Jimmy Carter on May 24, 1977. NRCS policy on floodplains (190-GM, Part 410, Subpart B, Section 410.25) reflects the requirement of the E.O. that decisions by Federal agencies must recognize that floodplains have unique and significant public values.

What is it?

Floodplains are defined as lowlands or relatively flat areas adjoining inland or coastal waters, including at a minimum areas subject to a chance of flooding of 1 percent or greater in any given year. The “base” floodplain is set equal to the “100-year” floodplain (the so-called “1-percent chance floodplain”). The “critical action” floodplain is defined as the 500-year floodplain (the “0.2-percent chance floodplain”) where certain facilities are present, such as a school, hospital, nursing home, utility, or a facility producing volatile, toxic, or water-reactive materials. Floodplains may be shown on maps produced by the Federal Emergency Management Agency (FEMA) and on NRCS watershed plans and floodplain management studies.

Why is it important?

The objectives of E.O. 11988 are to avoid, to the extent possible, the long- and short-term adverse impacts associated with occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development where there is a practical alternative.

What can be done about it?

Through proper planning, floodplains can be managed to reduce the threat to human life, health and property in ways that are environmentally sensitive. Most floodplains contain areas with valuable assets that sustain and enhance human existence. Some of these assets are agricultural and forest lands, food and fiber, fish and wildlife, temporary floodwater storage, parks and recreation, and environmental values. NRCS provides leadership and takes actions where practicable to conserve, preserve, and restore existing natural and beneficial functions and values in base (100-year) floodplains as part of the technical and financial assistance program that it administers.

Floodplain Management at a Glance

Problems / Indicators - Potential negative impacts to floodplains	
Causes	Solutions
<ul style="list-style-type: none"> • Land use changes/conversions in floodplain • Ground-disturbing project within floodplain • Infrastructure development in floodplain • Activities requiring a NPDES permit • Construction of flood walls, dikes, etc., for purpose of flood control 	<ul style="list-style-type: none"> • Consult HUD/FEMA flood insurance maps and/or other available floodplain data • Mitigation to eliminate potential impacts during planning process • Incorporate conservation/mitigation measures into project specifications, as needed • Establish monitoring protocols

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility Degradation

Clean Water Act

Coastal Zone Management Areas

Coral Reefs

Cultural Resources

Endangered and Threatened Species

Environmental Justice

Essential Fish Habitat

Floodplain Management

Invasive Species

Migratory Birds

Prime and Unique Farmlands

Riparian Areas

Wetlands

Wild and Scenic Rivers

Invasive Species

Invasive Species

Executive Order (E.O.) 13112, Invasive Species (February 3, 1999) directs Federal agencies to “prevent the introduction of invasive species, provide for their control, and to minimize the economic, ecological, and human health impacts that invasive species cause.” NRCS policy (190-GM, Part 414) is consistent with this E.O. and also requires that no action be authorized, funded, or carried out that is believed or likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere.

What is it?

The National Invasive Species Council (NISC) and Invasive Species Advisory Committee (ISAC) were formed to define how the objectives of the E.O. will be carried out. As defined in E.O. 13112, invasive species are species, not native to a particular ecosystem, whose introduction does or is likely to cause economic or environmental harm or harm to human health. Invasive species may include all terrestrial and aquatic life forms, including plants, animals, fungi, and microbial organisms. NRCS policy further defines a plant species as “invasive” only when it occurs on the Federal or State-specific noxious weed list or a list developed by the State-specific Department of Agriculture with their partners and approved by the State Technical Committee which prohibits or cautions its use due to invasive qualities.

Why is it important?

Invasive species are reducing the economic productivity and ecological integrity of our Nation’s lands and waters. The rate of introduction of such species has risen markedly in recent years with costs to society growing commensurately. Invasive species harm native species and their habitats, degrade renewable resources, and diminish productive capacity of agricultural lands including cropland, forestlands, rangelands, and pasturelands. They negatively impact a wide variety of human activities and needs.

What can be done about it?

Recognizing and addressing the presence of invasive species is an integral part of the conservation planning process and implementing NRCS policy and any existing county, State, or Federal regulations concerning noxious and/or invasive species. At a minimum, the conservation plan includes: 1) an inventory of invasive species; 2) a map outlining the affected areas; 3) identification of control/restoration strategies; and 4) analysis of their impacts.

Invasive Species at a Glance

Problems / Indicators - Presence of invasive species	
Causes	Solutions
<ul style="list-style-type: none"> Land use changes/conversions without appropriate vegetative cover plan Ground-disturbing projects Improper livestock grazing management Restoration projects (upland and aquatic) without appropriate measures to ensure vegetative cover Accidental transport and introduction via equipment 	<ul style="list-style-type: none"> Critical area planting Pasture and hayland planting Prescribed grazing Streambank & shoreline protection Restoration & management of rare & declining habitats Integrated pest management Establish monitoring protocols

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility Degradation

Clean Water Act

Coastal Zone Management Areas

Coral Reefs

Cultural Resources

Endangered and Threatened Species

Environmental Justice

Essential Fish Habitat

Floodplain Management

Invasive Species

Migratory Birds

Prime and Unique Farmlands

Riparian Areas

Wetlands

Wild and Scenic Rivers

Migratory Birds

Migratory Birds

The Migratory Bird Treaty Act (MBTA) of 1918, as amended, is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Executive Order (E.O.) 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires NRCS to consider the impacts of planned actions on migratory bird populations and habitats for all planning activities. The Bald and Golden Eagle Protection Act of 1940, as amended, also prohibits the take of bald and golden eagles and their nests.

What is it?

Migratory birds are essentially all wild birds found in the United States, except the house sparrow, starling, feral pigeon, and resident game birds, such as pheasant, grouse, quail, and wild turkeys. Resident game birds are managed separately by each State. A list of migratory birds is found in 50 CFR Part 10. There are also other requirements protecting certain migratory birds. The Bald and Golden Eagle Protection Act (BGEPA) provides protection to all Bald and Golden Eagles by prohibiting all commercial activities and some noncommercial activities involving bald or golden eagles, including their feathers or parts.

Why is it important?

The MBTA fully protects all migratory birds and their parts (including eggs, nests, and feathers). Thus, the act makes it unlawful, unless permitted by regulation, for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird, including feathers, parts, nests, or eggs. This prohibition applies to Federal agencies as well as private individuals. Also, under the BGEPA, the "taking" of bald and golden eagles and their nests is prohibited. The definition of "take" under this law includes disturbance.

What can be done about it?

MBTA, BGEPA, and E.O. 13186 require NRCS to consider the impacts of planned actions on migratory bird populations and habitats for all planning activities. This may require cooperation with the U.S. Fish and Wildlife Service if the action will result in a measurable negative effect on migratory bird populations. If, for example, a proposed action can potentially kill or injure a migratory bird resulting in an intentional or unintentional "take" to the birds, nests, or eggs, or disturbance of eagles or their nests will occur, conservation measures must be considered to mitigate adverse impacts.

Migratory Birds at a Glance

Problems / Indicators - Proposed action may adversely impact migratory birds	
Causes	Solutions
<ul style="list-style-type: none"> Land use changes/conversions Ground-disturbing projects Vegetation management during the nesting season Land clearing or obstruction removal Sod-busting Forest harvest activities 	<ul style="list-style-type: none"> Timing of practice installation/harvest Prescribed grazing/timing of grazing Cooperation with USFWS to establish conservation measures Restoration & management of rare & declining habitats Establish monitoring protocols Avoidance of specific areas/setbacks

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Prime and Unique Farmlands

Prime and Unique Farmlands

The Farmland Protection Policy Act (FPPA) was passed by Congress as part of the Agriculture and Food Act of 1981 (Public law 97-98). The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

What is it?

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion, as determined by the Secretary of Agriculture. It may include lands currently used to produce livestock and/or timber. **Unique farmland** is land other than prime farmland that is used for production of specific high-value food and fiber crops, as determined by the Secretary. Examples of such crops include citrus, tree nuts, olives, cranberries, fruits, and vegetables. **Farmland that is of statewide or local importance other than prime or unique farmland** is used for the production of food, feed, fiber, forage, or oilseed crops, as determined by the appropriate State or unit of local government agency or agencies, with the approval of the Secretary of Agriculture.

Why is it important?

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency, including NRCS.

What can be done about it?

NRCS must use the criteria provided in regulations found at 7 CFR Section 658.5 to identify and take into account the adverse effects of Federal programs on the protection of farmland. As well as evaluating the effects of our own actions upon farmland, NRCS must assist Federal agencies to consider alternative actions, as appropriate, that could lessen such adverse effects on farmland conversion to nonagricultural uses. NRCS uses a land evaluation and site assessment (LESA) system to establish a farmland conversion impact rating scores. This score is used as an indicator for the project sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the recommended allowable level.

Prime and Unique Farmlands at a Glance

Problems / Indicators - Proposed farmland conversion	
Causes	Solutions
<ul style="list-style-type: none"> Proposed land use changes/conversion of agricultural lands Ground disturbing/land clearing activities Construction of infrastructure projects Exurban development 	<ul style="list-style-type: none"> Conduct LESA for conversion impact score Share result with cooperating Federal agency proposing action (normally for NEPA analysis) Offer alternatives (relocation) for consideration if adverse impacts to prime, unique, or locally important agricultural lands

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Riparian Areas

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility Degradation

Clean Water Act

Coastal Zone Management Areas

Coral Reefs

Cultural Resources

Endangered and Threatened Species

Environmental Justice

Essential Fish Habitat

Floodplain Management

Invasive Species

Migratory Birds

Prime and Unique Farmlands

Riparian Areas

Wetlands

Wild and Scenic Rivers

Riparian Areas

NRCS policy (190-GM, Part 411) requires NRCS to integrate riparian area management into all plans and alternatives. Although Federal law does not specifically regulate riparian areas, portions of riparian areas, such as wetlands and other waters of the U.S. may be subject to Federal regulation under provisions of the Food Security Act, Clean Water Act, NEPA, and State, Tribal, and local legislation.

What is it?

Riparian areas are ecotones that occur along streams, rivers, lakes, ponds, and wetlands. They are distinctively different from the surrounding lands because of unique soil and vegetative characteristics that are strongly influenced by free or unbound water in the soil. Riparian ecosystems occupy the transitional area between the terrestrial and aquatic ecosystems. Typical examples include floodplains, stream banks, and lakeshores. Riparian areas may exist within all land uses, such as cropland, hay land, pastureland, rangeland, and forestland.

Why is it important?

Although riparian areas constitute only a fraction of the total land area, they are generally more productive in terms of plant and animal species, diversity, and biomass. Riparian areas are vital components of the ecosystems in which they occur and are extremely important for flood attenuation, hydrologic function (water quantity, quality, and timing), and fish and wildlife diversity. NRCS policy requires conservation plans to maintain or improve water quality/quantity as well as fish and wildlife benefits. It also requires the development of alternatives when the client's objectives conflict with the conservation of these areas.

What can be done about it?

Conservation planning in riparian areas requires special considerations. A resource problem within the riparian area may be the manifestation of upland management decisions. Planners working with riparian areas should consider soils, the present plant community, the site potential, geomorphology of both stream and the watershed, hydrologic regime, fish and wildlife needs, the management of the upland areas of the watershed, and the producer's objectives. For supplemental guidance relating to riparian areas, see *NRCS/RCA Issue Brief 11 (USDA-NRCS, August 1996)*.

Riparian Areas at a Glance

Problems / Indicators - Degraded riparian area	
Causes	Solutions
<ul style="list-style-type: none"> • Improper livestock grazing management • Presence of invasive species • Stream channel modifications • Stream channel aggradation or degradation • Structural modifications (e.g., diversions, ditches, dam, etc.) • Land use/vegetation changes 	<ul style="list-style-type: none"> • Streambank and shoreline protection • Stream crossing • Riparian forest buffers and/or herbaceous cover • Critical area planting • Fence/access control • Prescribed grazing • Integrated pest management

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Wetlands

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility
Degradation

Clean Water Act

Coastal Zone
Management
Areas

Coral Reefs

Cultural
Resources

Endangered
and Threatened
Species

Environmental
Justice

Essential Fish
Habitat

Floodplain
Management

Invasive
Species

Migratory Birds

Prime and
Unique
Farmlands

Riparian Areas

Wetlands

Wild and Scenic
Rivers

Wetlands

Executive Order (E.O.) 11990 requires that Federal agencies take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the beneficial functions of wetlands when “providing federally undertaken, financed or assisted construction and improvements.” NRCS policy for implementing the E.O. can be found at 190-GM, Part 410, Subpart B, Section 410.26. In addition, activities that impact wetlands often require a Clean Water Act, Section 404 permit from the Corps. Activities in wetlands that occur in the 100 or 500-yr floodplain are also subject to review under NRCS floodplain management policy (190-GM Section 510.25).

What is it?

Wetlands are defined differently within various Federal and State programs and for identification, delineation, and classification purposes. NRCS wetland protection policy defines wetlands as areas, natural or artificial, that have hydric soil, hydrophytic vegetation, and indicators of wetland hydrology. Generally, wetlands include swamps, marshes, bogs, many bottomland hardwood areas and similar areas.

Why is it important?

It is the policy of the NRCS to protect and promote wetland functions and values in all NRCS planning and application assistance. NRCS activities must comply with E.O. 11990, Protection of Wetlands, and with NRCS policy for protection of wetlands. Wetlands serve a variety of significant biological functions important to the food chain, general habitat, and nesting, spawning, and rearing sites.

What can be done about it?

Since wetlands are highly variable and can be dry for most of the year, wetland delineation training is important. If wetlands will be impacted by a proposed activity, NRCS will identify whether practicable alternatives exist that either enhance wetland functions and values, or avoid or minimize harm to wetlands. If such alternatives exist, the client will be given the opportunity to select one of those alternatives. If the client selects a practicable alternative, the NRCS may continue technical assistance for the conversion activity as well as the development of the mitigation plan. If a practicable alternative is not selected, NRCS may assist with the development of an acceptable mitigation plan, but no further financial or technical assistance for the wetland conversion activity may be provided.

Wetlands at a Glance

Problems / Indicators - Wetlands with impaired functions	
Causes	Solutions
<ul style="list-style-type: none"> • Past or current draining • Removal of native vegetation • Presence of invasive species • Changes in local hydrology • Dredge and fill activities • Adjacent stream channel modifications • Pollution from point sources (e.g., CAFO) 	<ul style="list-style-type: none"> • Wetland restoration • Tree/shrub establishment • Riparian forest buffers and/or herbaceous cover • Shallow water development and management • Fish passage • Incorporate 404 Permit conservation measures into planning design

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012



United States Department of Agriculture
Natural Resources Conservation Service

Special Environmental Resource Concerns

Wild and Scenic Rivers

Clean Air Act
Criteria Pollutants

Clean Air Act
Regional Visibility Degradation

Clean Water Act

Coastal Zone Management Areas

Coral Reefs

Cultural Resources

Endangered and Threatened Species

Environmental Justice

Essential Fish Habitat

Floodplain Management

Invasive Species

Migratory Birds

Prime and Unique Farmlands

Riparian Areas

Wetlands

Wild and Scenic Rivers

Wild and Scenic Rivers

The National Wild and Scenic Rivers Act of 1968 (Public Law 90-542) was created by Congress to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. A listing of designated streams and stream segments can be found on the National Park Service's Wild and Scenic Rivers Web site.

What is it?

Rivers may be designated by Congress or, if certain requirements are met, the Secretary of the Interior. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries. For federally administered rivers, the designated boundaries generally average one-quarter mile on either bank in the lower 48 states and one-half mile on rivers outside national parks in Alaska in order to protect river-related values. Designated rivers are classified as wild, scenic, or recreational.

Why is it important?

The designation of a river or river segment under the Wild and Scenic Rivers Act provides legal protections from adverse development and provides a mechanism for management of the river's resources. In addition to the river segments designated as wild and scenic, many more segments are believed to possess one or more outstanding or remarkable natural or cultural values judged to be of more than local or regional significance. Under a 1979 Presidential directive, and related CEQ procedures, all Federal agencies must also seek to avoid or mitigate actions that would adversely affect one or more National River Inventory (NRI) stream segments.

What can be done about it?

Federal agencies must consider the values of these segments prior to taking actions that could exclude them from future wild, scenic, or recreational status. Generally, timber harvests and agricultural operations on privately owned lands are unaffected in wild, scenic, and recreational river designations. However, some activities may require permits or may be covered under special provisions of the management plan. Each designated river has a Federal river manager who may assist and cooperate with States or local organizations, landowners, and individuals to plan, protect, and manage river resources. The assistance may include limited financial assistance.

Wild and Scenic Rivers at a Glance

Problems / Indicators - Proposed action may adversely impact a designated river or river segment	
Causes	Solutions
<ul style="list-style-type: none"> Land use changes adjacent to river segment Riparian modifications Changes in local hydrology (e.g., adjacent wetland draining activities) Dredge and fill activities Pollution from point sources (e.g., CAFO) 	<ul style="list-style-type: none"> Mitigation during the planning process Wetland restoration Riparian forest buffers and/or herbaceous cover Forest harvest management and BMPs Prescribed grazing Consult with NPS to coordinate mitigation plan

www.nrcs.usda.gov

USDA is an equal opportunity provider and employer.

March 2012