American Government Roles

The Clean Water Act

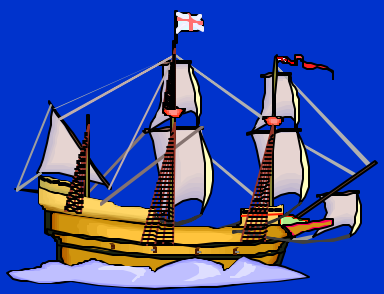
The Safe Drinking Water Act

Introduction to the American System of Government

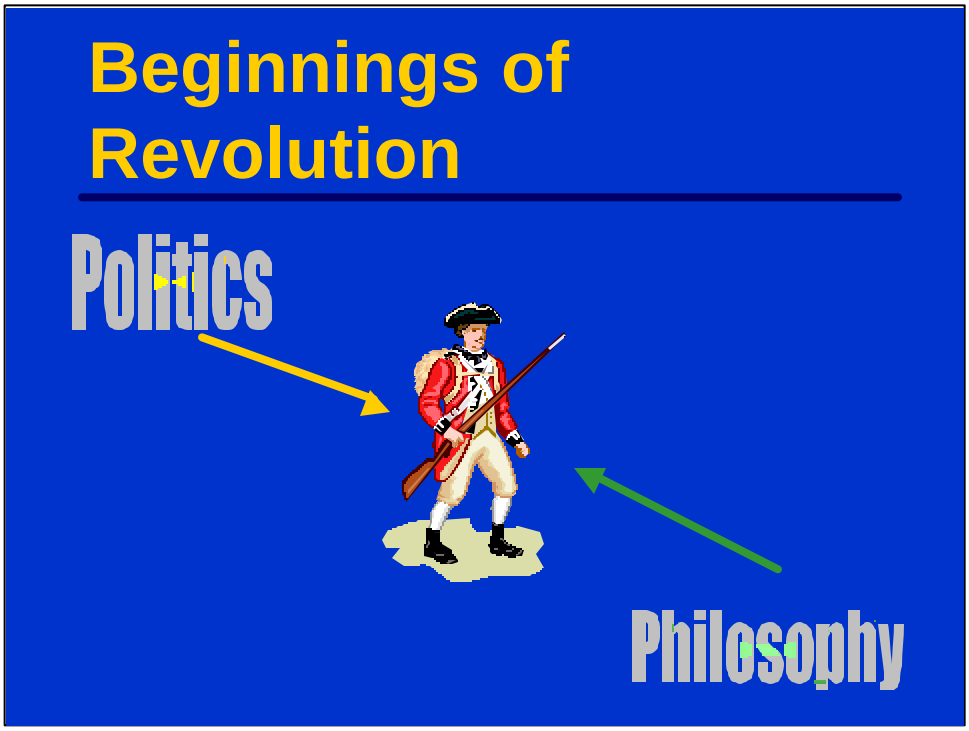
- The American system of government was unique for its time. It was shaped by the events and philosophical thinking of the times, as well as the characters and interests of the founders.
- This course will begin by providing some background on how the founders arrived at our system of government and how this system works today. It will also explore how the governmental system affects the two primary water statutes EPA administers: The Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA).
- By the end of this course, students will be able to:
  - Describe the three branches of government, their roles and limitations, and how they interact with EPA;
  - Discuss the history of EPA;
  - Understand the major programs under the CWA and SDWA;
  - Describe how EPA is organized to implement these statutes;
  - Discuss the regulatory development process; and
  - Understand how EPA uses the tools provided by the statutes for their implementation.

History: The Colonial Period

- Mayflower Compact
- Participation in colonial government
- Significant autonomy from England



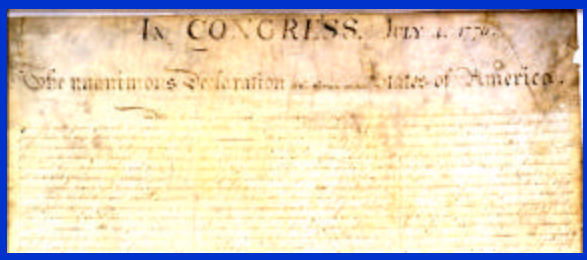
- From the earliest settlements, English colonists had some measure of self-government. Aboard the Mayflower, the Pilgrims adopted the "Mayflower Compact," which established an unchallenged system of self-government.
- All the colonies, except Georgia, emerged as companies of shareholders, or as feudal proprietorships stemming from charters granted by the Crown. In most instances, the king, in making grants provided in the charters that the free men of the colony should have a voice in legislation affecting them.
- The colonies considered themselves commonwealths or states, much like England itself, having only a loose association with the authorities in London.
- During the mid-17th century, the English were too distracted by the Civil War (1642-1649) and Oliver Cromwell to pursue an effective colonial policy. However, in 1685, James II approved a proposal to create a Dominion of New England and place colonies south through New Jersey under its jurisdiction. Taxes were levied by executive order and resisters were jailed.
- After James II was deposed in 1689, colonies quickly reinstalled their previous governments.



- By the early 18th century, colonial legislatures had two significant powers: the right to vote on taxes and expenditures and the right to initiate legislation, rather than simply act on proposals of the governor. The legislatures used these rights to check the power of royal governors and to pass other measures to expand their influence. Recurring clashes between the governors and the assemblies awakened the colonists to the divergence between American and English interests.
- Colonists joined with the British to win the French and Indian War. While the colonists thought the British owed them a debt of gratitude, the British began to think that they needed to impose more control. Attempts by Britain to organize the lands in the interior ran into protests from the colonies that asserted their right to extend their boundaries as far west as the Mississippi River.
- More serious was the financial policy of the British, which sought to raise revenues from the colonists. New duties, or taxes, were imposed that met with serious opposition from the colonists who began to talk about "taxation without representation."
- The origins of the Revolutionary War, however, can be traced to more than attempts by the Crown to assert its authority. Actions of the colonists were influenced by trends in thinking and writing in Europe and the American colonies during the 18th century prior to the French Revolution. The writers of the period believed they were emerging from centuries of darkness and ignorance into a new age "enlightened" by reason, science, and respect for humanity.
- The most important belief of the Enlightenment was faith in the power of human reason. People came to assume that through a judicious use of reason, a never-ending progress would be possible in knowledge, technical achievement, and moral values. Through education, humanity itself could be altered, its nature changed for the better. In the 1770s writers broadened their field of criticism to include political and economic issues.

The American Revolution

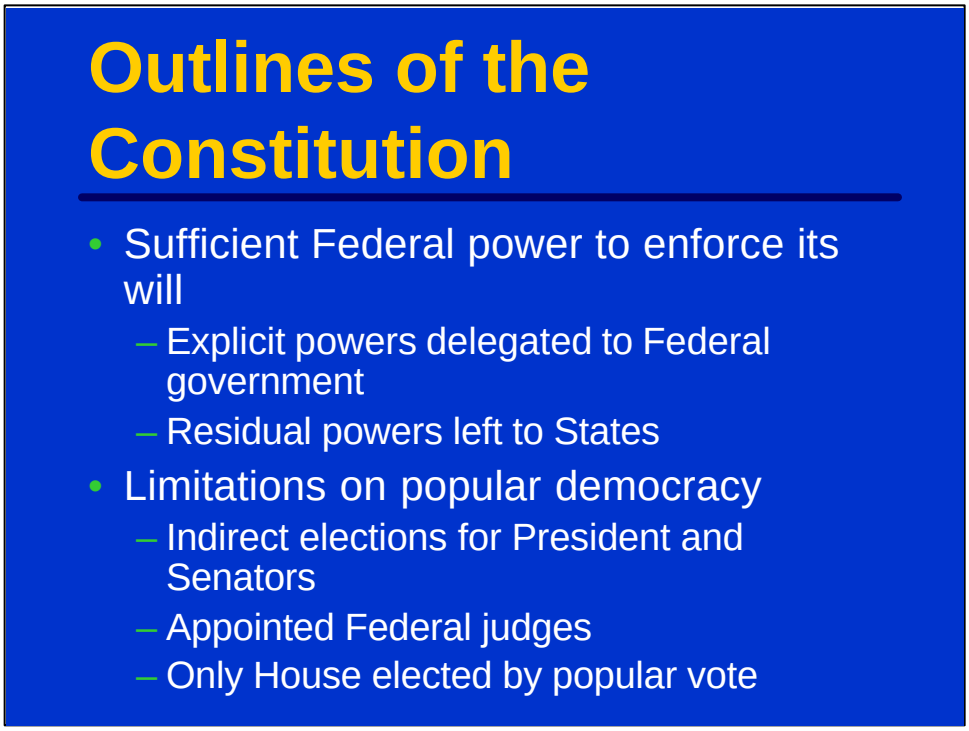
- Sought to assert independence
- Reflected Enlightenment principles



- From 1764, American colonists engaged in numerous legal and military skirmishes with the British, culminating with the Declaration of Independence on July 4, 1776, and the official start of the American Revolutionary War. In the eyes of Europeans, the Revolutionary War was of seminal importance, showing that individuals were going beyond the mere discussion of enlightened ideas and were actually putting them into practice.
- The Declaration of Independence clearly rejected authority and assumed "human rights." Force of reason alone was sufficient to confront a king. The phrase, "To prove this, let Facts be submitted to a candid World," precedes the litany of offenses by King George enumerated in the Declaration.
- In 1781, the British were defeated at Yorktown, signaling an end to the War.

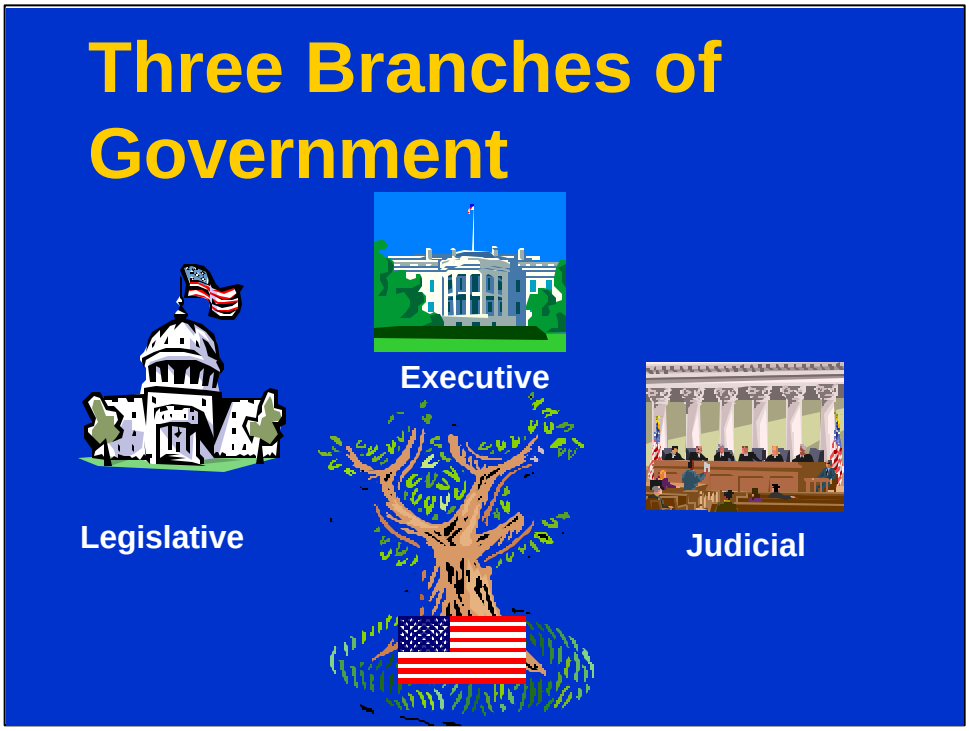
The U.S. Constitution

- The Articles of Confederation, ratified in 1781, put in place a weak confederation with most of the power in local hands. The States were allies in a revolutionary war. Victorious in revolution, the founders now needed to decide how to govern. In 1787, the Confederation Congress agreed to convene a constitutional convention.
- Numerous controversies had to be settled and compromises reached before the Constitution began to take shape. Philosophically, the Constitution reflected principles of Enlightenment thinking:
  - Government comes from below, not above, and it derives its powers from the consent of the governed;
  - Men have certain natural, inalienable rights;
  - It is wise and feasible to distribute powers within government, giving local powers to local governments, and general powers to the national government; and
  - Men are born equal and should be treated equally before the law (although the framers interpreted this narrowly, not applying it to women, blacks, or Indians).



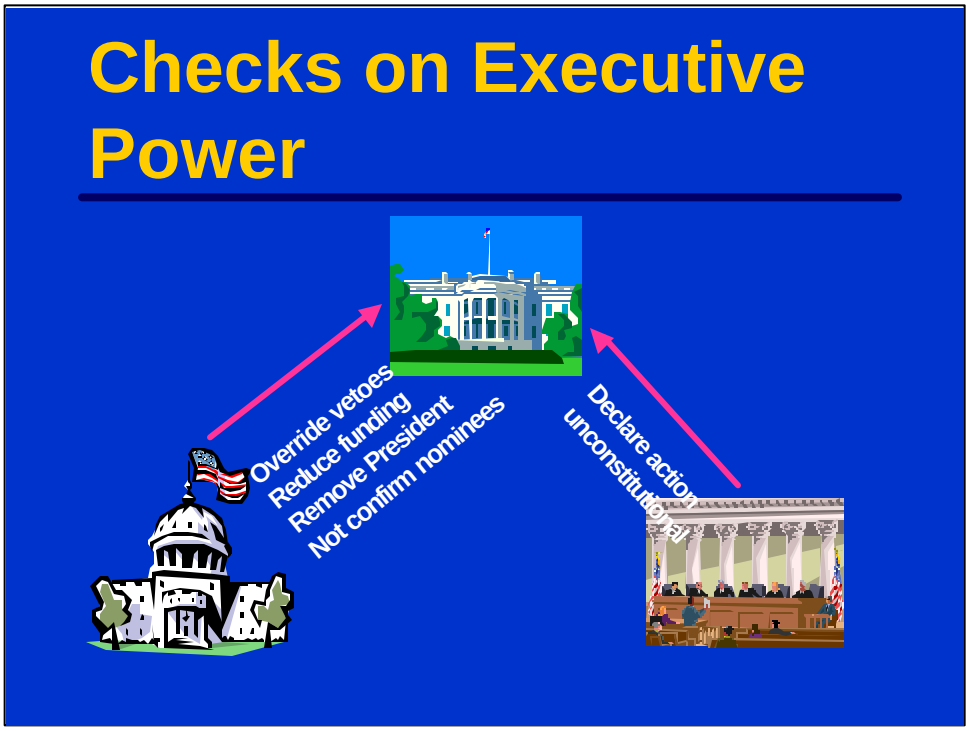
- The overriding goals of the Constitution were to grant the Federal government sufficient power to enforce its will and to find ways to limit popular democracy.
- The convention delegated various explicit powers to the Federal government under Article I, Section 8 (see Handout # I-1), including:
  - Collecting taxes;
  - Regulating interstate and international commerce;
  - Coining money;
  - Establishing post offices;
  - Declaring war; and
  - Maintaining armies and a navy.
- All residual powers, with certain exceptions in Article I, Section 10 (e.g., entering into treaties, coining money, taxing imports or exports, maintaining troops or engaging in war), were left to the States (see Handout # I-1).
- Fearing the "tyranny of the majority," the Constitution provided for indirect election of the President through the electoral college and the election of Senators by State legislatures. Federal judges were to be appointed. Only Representatives to the House would be elected by popular vote.
- The Constitution of the United States was drafted by the Constitutional Convention in Philadelphia between May 25 and September 17, 1787, and became effective in 1789. It is the world's oldest written constitution still in effect.

- The Constitution splits sovereignty between the Federal government, States and Tribes. Sovereignty is the inherent right or power to govern. Under the Constitution, only the Federal government has the power to regulate Indian affairs. In general, State laws do not apply in Indian country.
- During colonization of America, England treated the Indian Tribes as foreign sovereign nations. After the American Revolution, the United States continued dealing with Tribes as sovereign nations and made treaties with Tribes. These treaties are still the "supreme law of the land" and have the same force as Federal statutes unless specifically repealed by Congress.
- The Constitution recognizes Tribes as distinct governments. It authorizes Congress to regulate commerce with "foreign nations, among the several states, and within the Indian tribes." (See Handout # I-1.)
- Today, the Federal government works with Tribes on a government-to-government basis. The Federal government has a trust responsibility to Federally-recognized Indian Tribes (of which there are 556) that arises from Indian treaties, statutes, executive orders, and the historical relations between the United States and Indian Tribes. The "trust responsibility" is the government's obligation to honor the trust inherent to these promises and to represent the best interests of the Tribes and their members. Simply, this means that the Federal government (including EPA) must consult with and consider the interests of the Tribes when taking actions that may affect Tribes or their resources. There may also be a specific component of the trust responsibility as the result of some formal action of the United States such as a statute, treaty, or executive order; for example, where the Federal government acts as a trustee for a Tribe or an individual Indian (the beneficiary) over Indian trust assets (timber, lands, funds, minerals).
- At the time of European invasion, Tribes wholly governed their own affairs. Over time, Congress has eroded the power of Tribes and limited their authority through treaties, legislation and statutes. In general, Tribes retain all those aspects of sovereignty not expressly taken away by Congress. Tribes can legislate generally, adopting all manner of civil and criminal laws. This authority includes, but is not limited to, determination of domestic rights and relations, regulation of commercial and business relations, chartering of business organizations, disposition of nontrust property and establishment of rules of inheritance, land use regulation, power to raise revenues for the operation of the government, and power to administer justice through law enforcement and judicial systems.

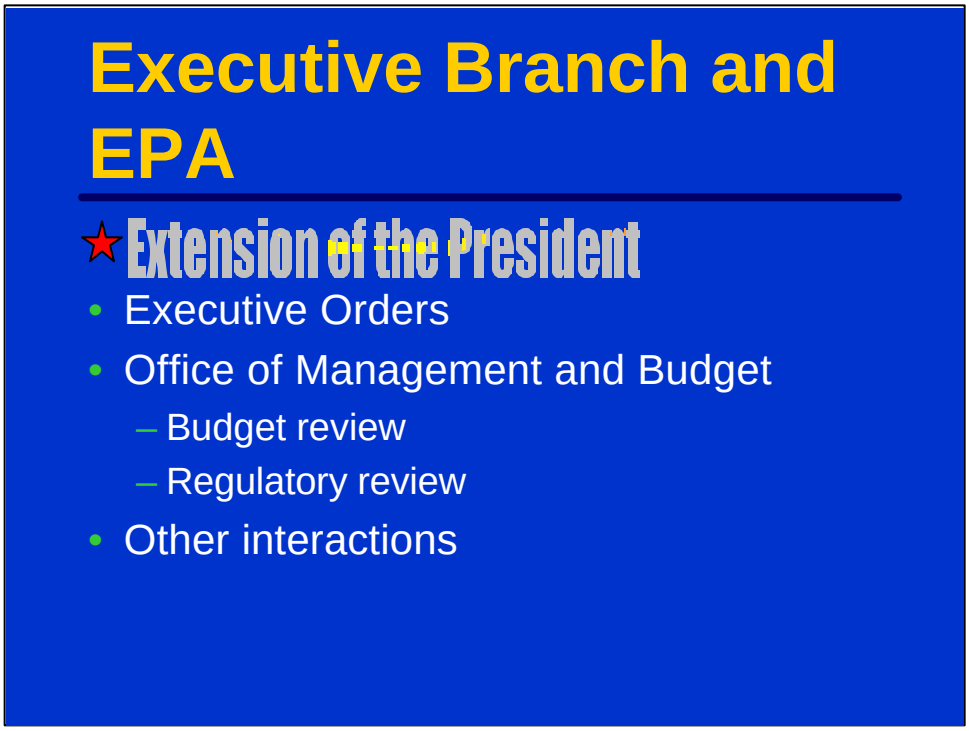


- The structure provided in the Constitution both separated and balanced powers. Federalism balanced the power of national and State governments and thus limited the power of the Federal government.
- Separation of powers created three branches of government, each branch having particular powers. Each branch also has certain powers, or checks, over other branches, in order to prevent an abuse of power.
- The powers of the President, embodied in the executive branch, were explicitly designated. The President is the principal officer of the executive branch of government.
- The legislative branch, consisting of the House of Representatives and the Senate, has the power to assess and collect taxes, regulate interstate and foreign commerce, coin money, establish post offices, declare war, and maintain the armed forces. Each chamber also has special powers. For example, the Senate must ratify treaties and the House initiates all revenue bills.
- The Constitution is less explicit about the judicial branch. It creates only one court (the Supreme Court), allows judges to serve for life and to receive compensation, broadly outlines original and appellate jurisdiction, and outlines the trial procedure for and limitations of Congressional power against those accused of treason.

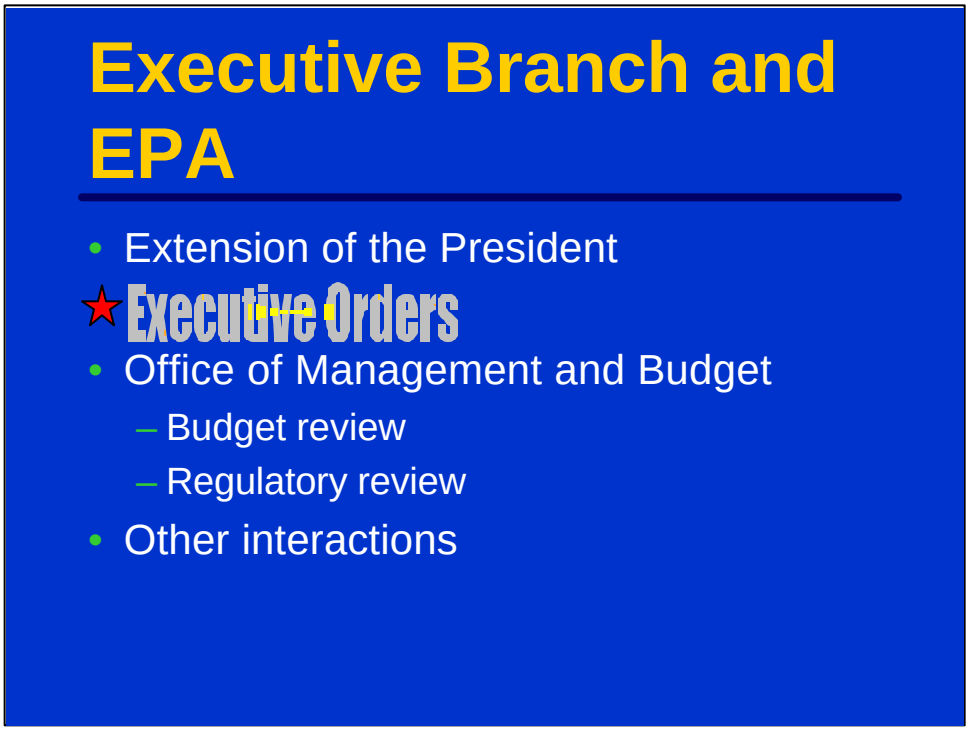
- The President presides over the executive branch and its approximately 3 million civilian employees, organized into some 100 departments, agencies, boards and commissions.
- The Executive Office of the President was established in 1939. It includes the White House staff, such as the press and appointments secretaries and other advisors, the Council of Economic Advisors, Council on Environmental Quality, National Security Council, and the Office of Management and Budget.
- The oldest source of collective policy advice are the executive departments – the cabinet. The cabinet includes 14 departments: Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, Interior, Justice, Labor, State, Transportation, Treasury, and Veterans Affairs.
- The executive branch also includes 57 independent agencies, with a wide range of interests. These varied agencies include the Advisory Council on Historic Preservation, Securities and Exchange Commission, AMTRAK, Central Intelligence Agency, Peace Corps, National Aeronautics and Space Administration, and EPA. The heads of these departments report to the President, but, with the exception of the Administrator of EPA, they do not have cabinet status. Legislation has been introduced in Congress several times to elevate EPA to cabinet status, but it has never been successful.
- The President sets the agenda and tone for the executive branch. While the agencies are staffed overwhelmingly with civil servants hired without regard for their political affiliation, department and agency heads and many subordinate management positions are staffed with Presidential appointees who share the President's political views.



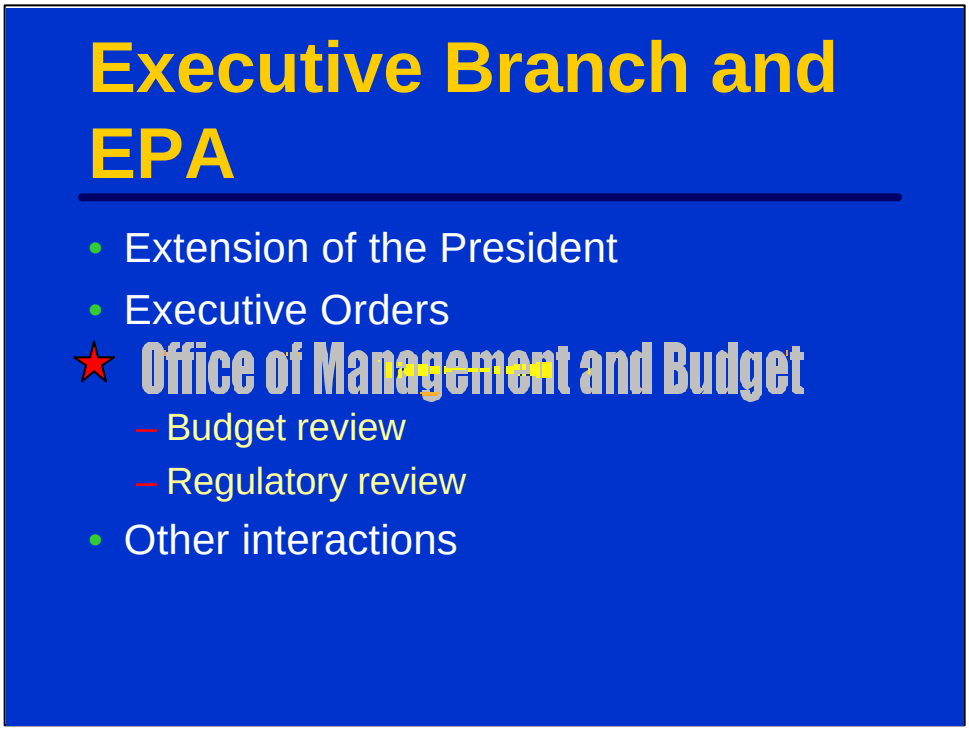
- Both the legislative and judicial branches can exercise checks on the power of the executive branch.
- Congress can:
  - Override Presidential vetoes;
  - Reduce funding of Presidential programs;
  - Remove the President from office; and
  - Refuse to confirm Presidential nominees.
- The courts can declare a Presidential action unconstitutional.



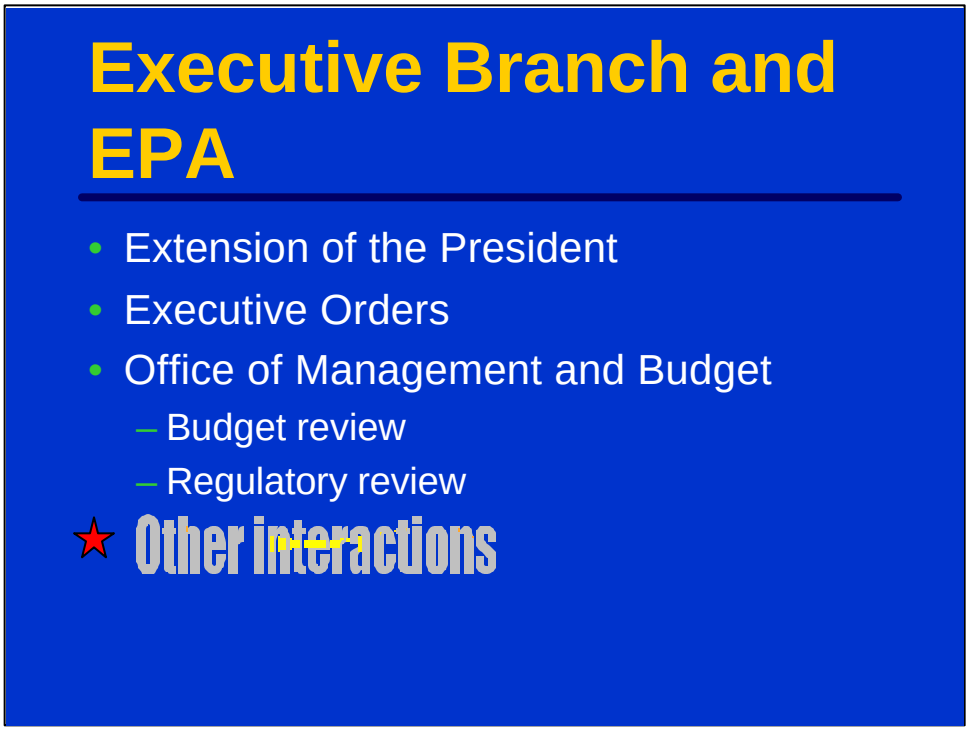
- EPA is part of the executive branch. As such, it is a representative of the President. It reflects the policies and tone set by the President and his Administration.
- Although the President appoints approximately 3,000 of the government's 3 million civilian employees, these appointees occupy the most senior positions in government. At EPA, the President appoints the Administrator, Deputy Administrator, nine Assistant Administrators, the General Counsel and Inspector General, and the ten Regional Administrators. In addition, there are two dozen or so "Schedule C" and other positions that are exempted from competitive service. These appointees typically serve in a confidential or policy role to appointed officials.
- The machinery of government operates fairly independently of Presidential interventions. New Presidents are immediately confronted with a backlog of decisions from the old administration on issues that are often complex and unfamiliar (such as the arsenic MCL). These include a budget formulated and enacted into law long before they came into office, as well as major spending programs that are mandated by law and not subject to influence.
- In an interview with EPA's History Office, two-time EPA Administrator William Ruckelshaus remarked that, "It is not widely understood that while institutions like EPA exist to serve the public, they are also there to serve the political appointees. The agency staff is very adaptable, within limits. If you rely on them, tell them what you want, and send clear signals, they do everything they can do to help you. But they sure won't do that if you tell them you don't trust them or you don't think they are capable. EPA is full of very capable people. They are not interested in walking away from their responsibilities and certainly are willing to take the leadership you offer and turn it into programs that work. To the extent they have any flexibility under the statutes – which they increasingly lack – they are very responsive to the political appointees."



- EPA has two primary interactions with other agencies in the executive branch: implementing Executive Orders (E.O.s) and interacting with the Office of Management and Budget (OMB).
- Executive Orders are official documents, through which the President manages the operations of the Federal government. All government agencies are subject to Executive Orders. For example, President Clinton issued E.O. 13078, Increasing Employment of Adults With Disabilities. EPA is subject to the provision requiring all Federal agencies to examine their hiring practices to determine how they could implement the goals of the Order.
- In some cases, EPA is responsible for administering an Order. For example, E.O. 13045, Environmental Risks and Safety Risks to Children, established a task force, co-chaired by EPA and HHS to recommend strategies for children's environmental health and safety. EPA established the Office of Children's Health Protection (OCHP) to support the Agency as it implements the President's Executive Order.
- E.O. 12873, Federal Acquisition, Recycling and Waste Prevention, created the position of Federal Environmental Executive (FEE) within EPA to provide clear national direction for Federal agencies, track the government's progress, and ensure compliance with the Order. It also created the Office of the Federal Environmental Executive, made of agency representatives who support the FEE.



- The predominant mission of the Office of Management and Budget (OMB) is to assist the President in overseeing the preparation of the Federal budget and to supervise its administration in executive branch agencies. In helping to formulate the President's spending plans, OMB evaluates the effectiveness of agency programs, policies, and procedures, assesses competing funding demands among agencies, and sets funding priorities. OMB ensures that agency reports, rules, testimony, and proposed legislation are consistent with the President's budget and with Administration policies.
- In addition, OMB oversees and coordinates the Administration's procurement, financial management, information, and regulatory policies. In each of these areas, OMB's role is to help improve administrative management, to develop better performance measures and coordinating mechanisms, and to reduce any unnecessary burdens on the public.
- Both of these roles will be discussed in more detail later in the course.



- EPA has interactions with other executive branch agencies. EPA coordinates with numerous agencies on related and overlapping programmatic issues. For example:
  - EPA and the Army Corps of Engineers jointly administer Section 404 of the Clean Water Act, which regulates the discharge of dredged or fill material into waters of the U.S.
  - The Council on Environmental Quality implements the National Environmental Policy Act (NEPA), which requires environmental assessments or environmental impact statements for Federally-funded activities. EPA reviews these assessments.
  - EPA and the Department of Transportation have a partnership to implement the Transportation Equity Act for the 21st Century (TEA-21), which includes provisions to ensure environmentally sound transportation systems.
- EPA works with the Department of Justice on enforcement cases. EPA can only bring administrative actions; cases must be referred to the Department of Justice for civil (or criminal) action.
- EPA oversees RCRA and Superfund cleanup activities at Federal agencies.
- EPA also interacts with the General Services Administration (GSA) which is responsible for providing workspace, security, furniture, equipment, supplies, tools, computers, telephones, travel and transportation services, and other functions government-wide.

Case Study: Legislative Checks on Executive Authority

Congressional Hearing

Anne Gorsuch Burford
EPA Administrator
1981-1983

- See Handout # I-2.
- Discussion questions:
  - Who decides how active or inactive EPA is in a particular area?
  - Did the Executive Branch abuse its authority?
  - Why did Congress intervene? How?
  - Do you see any lasting effects on the Agency?

Legislative Branch

House of Representatives

Senate

- The main body of the legislative branch is the Congress of the United States. The Congress is bicameral, that is, it contains two bodies: The House of Representatives, with 435 members apportioned among the States in proportion to their populations, and the Senate, with 100 members (two per State). The House also includes four delegates – one each from the District of Columbia, Puerto Rico, Guam and the Virgin Islands – who participate in debate but only vote in committees.
- The Constitution provides that the House elect a speaker who is, by custom, a member. The speaker is the leader of the party having the greater membership in the House.
- The Constitution designated the Vice President as president of the Senate, but allows him to vote only in the event of a tie. A president *pro tempore*, by tradition the senator having the longest continuous service in the majority party, presides.
- In both houses, the party with the larger membership takes major responsibility for managing formal leadership positions.

Legislative Branch

General Accounting Office

Government Printing Office

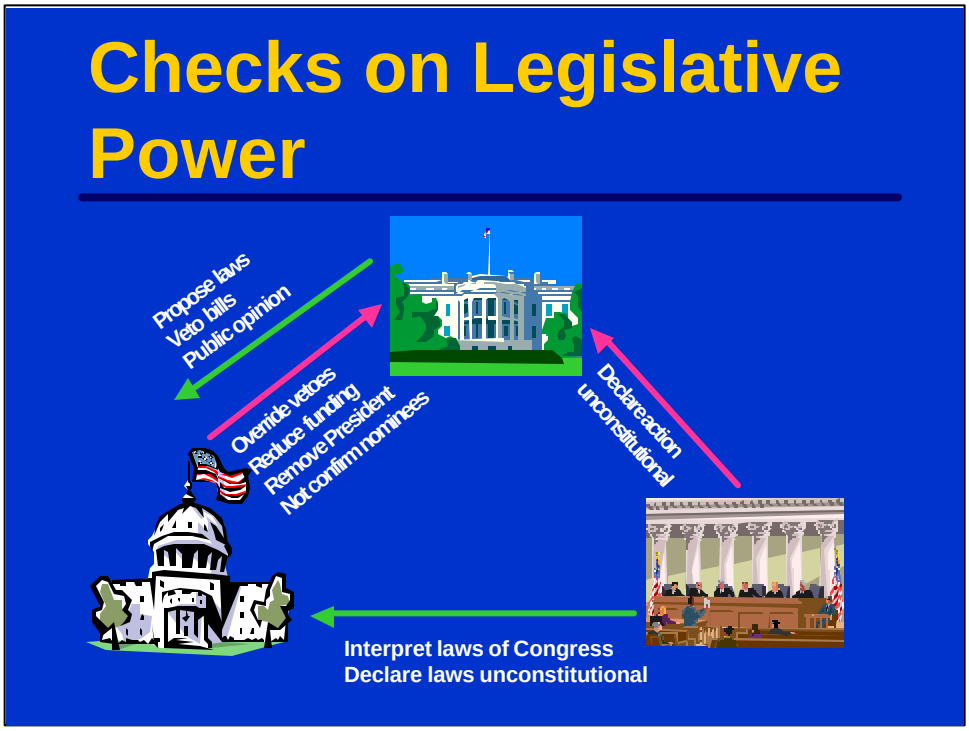
Library of Congress

- The legislative branch also includes three other agencies. The General Accounting Office is the investigative arm of Congress. GAO examines the use of public funds, evaluates Federal programs and activities, and provides analyses, options, recommendations, and other assistance to help the Congress make effective oversight, policy, and funding decisions. GAO's activities are designed to ensure the executive branch's accountability to the Congress under the Constitution and the government's accountability to the American people.
- The Government Printing Office (GPO) is also part of the legislative branch. The Public Printer, who serves as GPO's chief officer, is nominated by the President and confirmed by the Senate. Created primarily to satisfy the printing needs of Congress, GPO today is the focal point for printing, binding, and information dissemination for the entire Federal community.
- Established as a legislative library in 1800, the Library of Congress serves as a legislative library and the major research arm of the U.S. Congress; the copyright agency of the United States; a center for scholarship that collects research materials in many media and in most subjects from throughout the world in more that 450 languages; a public institution that is open to everyone over high school age and serves readers in twenty-two reading rooms; a government library that is heavily used by the executive branch and the judiciary; a national library for the blind and physically handicapped; an outstanding law library; one of the world's largest providers of bibliographic data and products; a center for the commissioning and performance of chamber music; the home of the nation's poet laureate; the sponsor of exhibitions and of musical, literary, and cultural programs that reach across the nation and the world; a research center for the preservation and conservation of library materials; and the world's largest repository of maps, atlases, printed and recorded music, motion pictures and television programs.

Congressional Operations

- Standing committees in each house
- Joint committees

- Much of the work of Congress is performed by committees. During the early Congresses, however, a standing committee system did not exist. Generally, any member was free to urge action on a particular subject, to be considered by the body as a whole. As the workload expanded, standing committees were designated as permanent legislative bodies continuing from Congress to Congress to which proposed bills on specified subject would be referred.
  - In the 107th Congress, which convened in January 2001, the House had 23 standing committees: Agriculture, House Administration, Science, Appropriations, Intelligence, Small Business, Armed Services, International Relations, Standards of Official Conduct, Budget, Judiciary, Transportation and Infrastructure, Education and the Workforce, Resources, Veterans Affairs, Financial Services, Rules, Ways and Means, and Government Reform.
  - The Senate had 16: Agriculture, Nutrition and Forestry; Appropriations; Armed Services; Banking, Housing and Urban Affairs; Budget; Commerce, Science and Transportation; Energy and Natural Resources; Environment and Public Works; Finance; Foreign Relations; Governmental Affairs; Judiciary; Health, Education, Labor and Pensions; Rules and Administration; Small Business; and Veterans' Affairs.
  - In addition, there were three joint committees: Economic, Taxation, and Printing.
- Most House members serve on only one committee; all Senators serve on several. When bills are introduced in either house, they are referred to a committee. Experience and precedents have been codified to make reference virtually automatic, thus reducing the discretion and influence of the leaders. The majority party holds a majority of the seats on every committee. The distribution of committee seats is usually adjusted when the ratio of majority to minority members changes (e.g., after elections).



- The Constitution gives the executive and judicial branches checks over the power of the legislative branch.
  - The President can propose laws (although only a member of Congress can introduce legislation) and veto bills. The President can also use his office to mold public opinion.
  - The judiciary interprets the laws of Congress and can declare a law unconstitutional.

Legislative Branch and EPA

- Oversight
- Appropriations
- Enacting a statute
- Other interactions

- EPA interacts with the legislative branch in a number of ways, each of which we will discuss in the following slides.

Legislative Branch and EPA: Oversight

- Subject to oversight committees
- Numerous committees
- Overlapping jurisdictions

- In addition to handling legislative actions, the committees listed earlier are responsible for oversight of the executive branch, that is, using their authority to monitor and appraise executive performance. Through hearings, investigations, and staff studies, committees highlight public discussion of the execution of broad programs enacted by Congress and assigned to the executive for detailed specification and implementation.
- EPA is under the jurisdiction of ten Senate committees (Agriculture, Appropriations, Budget, Energy and Commerce, Education and Workforce, Government Reform, Resources, Science, Small Business, and Transportation and Infrastructure) and ten House committees (Agriculture; Nutrition and Forestry; Appropriations; Armed Services; Budget; Commerce, Science and Transportation; Energy and Natural Resources; Environment and Public Works; Governmental Affairs; Health, Education, Labor and Pensions; and Small Business). (See Handout # I-3 for a complete listing of committee and subcommittee jurisdiction.)
- EPA is frequently called to testify before Congress to explain or defend its actions.

Legislative Branch and EPA: Appropriations

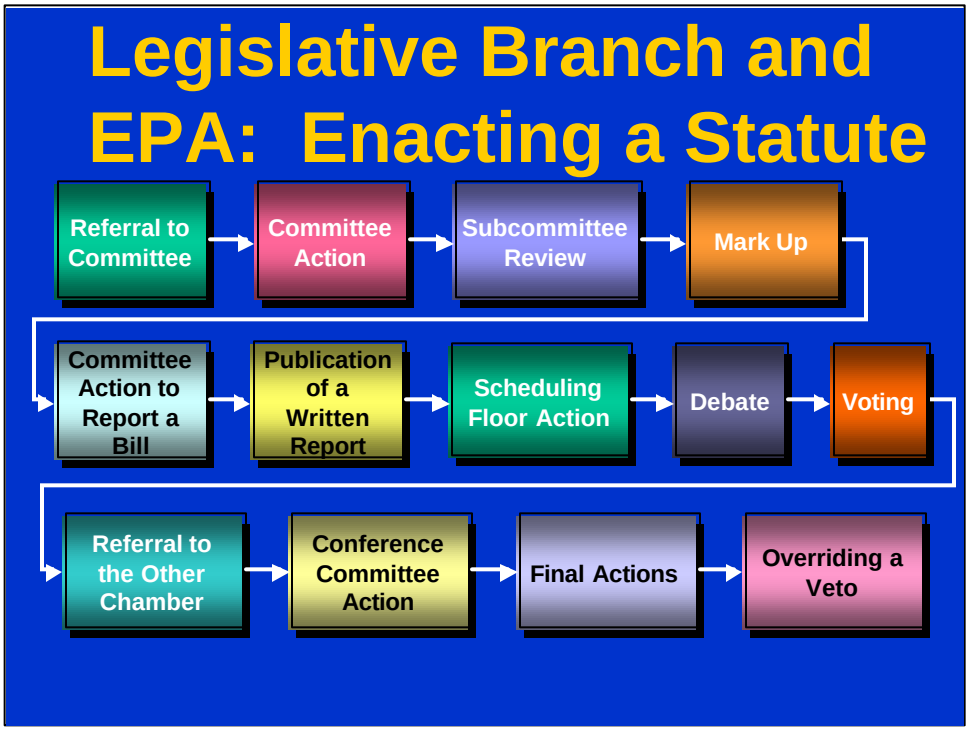
- Appropriations must be made by law
- 13 subcommittees
- EPA is under subcommittee on Veterans Affairs, Housing and Urban Development, and Independent Agencies

- The role of the Appropriations Committees is defined by the U.S. Constitution, which requires "appropriations made by law" prior to the expenditure of any money from the Federal treasury. The Committees write the legislation that allocates Federal funds to the numerous government agencies, departments, and organizations on an annual basis. Appropriations are limited to the levels set by a Budget Resolution, drafted by the Senate and House Budget Committees.
- Thirteen subcommittees in each chamber are tasked with drafting legislation to allocate funds to government agencies within their jurisdictions. These subcommittees are responsible for reviewing the President's budget request, hearing testimony from government officials, and drafting the spending plans for the coming fiscal year. Their work is passed on to the full Appropriations Committees, which may review and modify the bills and forward them to the full houses for consideration.
- The Committees are also responsible for supplemental spending bills, which are sometimes needed in the middle of a fiscal year to compensate for emergency expenses. For example, in 1997, the committees produced legislation to pay for extended peacekeeping commitments in Bosnia and natural disasters caused by extreme flooding throughout the United States.
- See Handout # I-4 for a calendar of Congressional budget activities.

Legislative Branch and EPA: Enacting a Statute

What are the steps in the legislative process?

- DO NOT TURN AHEAD TO THE NEXT PAGE!
- Instructor draws a flow chart as the students attempt to identify the steps and list them in order. The class checks the results against the next slide.



- See Handout # I-5 for a discussion of these steps.

Legislative Branch and EPA: Enacting a Statute

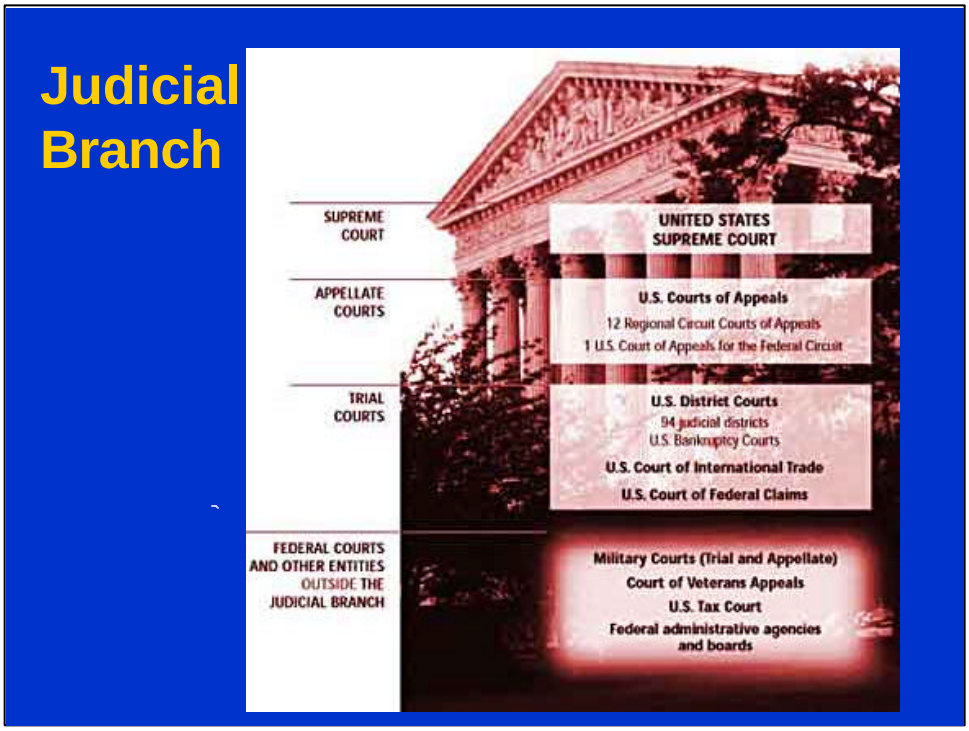
- How does EPA interact with Congress on legislative matters?
  - Provides information and opinions
  - Testifies at hearings

- Committees refer every relevant bill introduced in Congress to EPA for an opinion. When committees or individual members of Congress analyze a bill, they rely extensively on documents prepared by EPA.
- EPA often proposes alternative language or recommends clarifications in the language of draft legislation. EPA's Office of Congressional and Intergovernmental Relations (OCIR) serves as EPA's principal point of contact for Congress by:
  - Assisting, developing and implementing the legislative agenda for the Agency, including legislative initiatives and proposals;
  - Leading EPA in the review of legislation; coordinating EPA's formal positions and technical assistance to Congress; and monitoring all relevant legislative actions (e.g., bills, reports, regulations) related to EPA programs;
  - Facilitating communication of the Agency's priorities and policies to the Congress; and
  - Coordinating Agency appearances at Congressional hearings and managing associated testimony.

Legislative Branch and EPA: Other Interactions

- Recent water reports
  - Better Data and Evaluation of Urban Runoff Needed to Assess Effectiveness (June 2001)
  - Drinking Water Research: Better Planning Needed to Link Needs and Resources (September 1999)
  - Identification and Remediation of Polluted Waters Impeded by Data Gaps (February 2000)

- EPA interacts with the other organizations in the legislative branch. Chief among those is the General Accounting Office (GAO).
- GAO prepares reports at the request of Congress. GAO routinely investigates and prepares reports on different aspects of EPA's operations. EPA's Annual Planning and Budget Division (APBD), within the Office of the Comptroller, acts as the primary Agency liaison with the General Accounting Office.
- OW offices review draft reports and has an opportunity to comment prior to release, working with APBD which prepares official Agency responses to GAO recommendations and draft documents as required by Public Law.
- EPA is also affected by the Congressional Budget Office (CBO). CBO provides Congress with objective, nonpartisan analyses needed for economic and budget decisions and information and estimates required for the Congressional budget process. CBO's primary duty is to provide budget-related information to all committees of both Houses, with priority given first to the information needs of the Committees on the Budget and second to the information needs of the Committees on Appropriations, Ways and Means, and Finance.
- CBO is required to prepare estimates of the direct costs of all Federal mandates that are contained in legislation reported by any authorizing committee in either House and that affect State, local, and Tribal governments or the private sector. CBO is also authorized to prepare analyses and studies of the budgetary or financial impact of proposed legislation that may significantly affect State and local governments or the private sector, to the extent practicable, at the request of any committee.

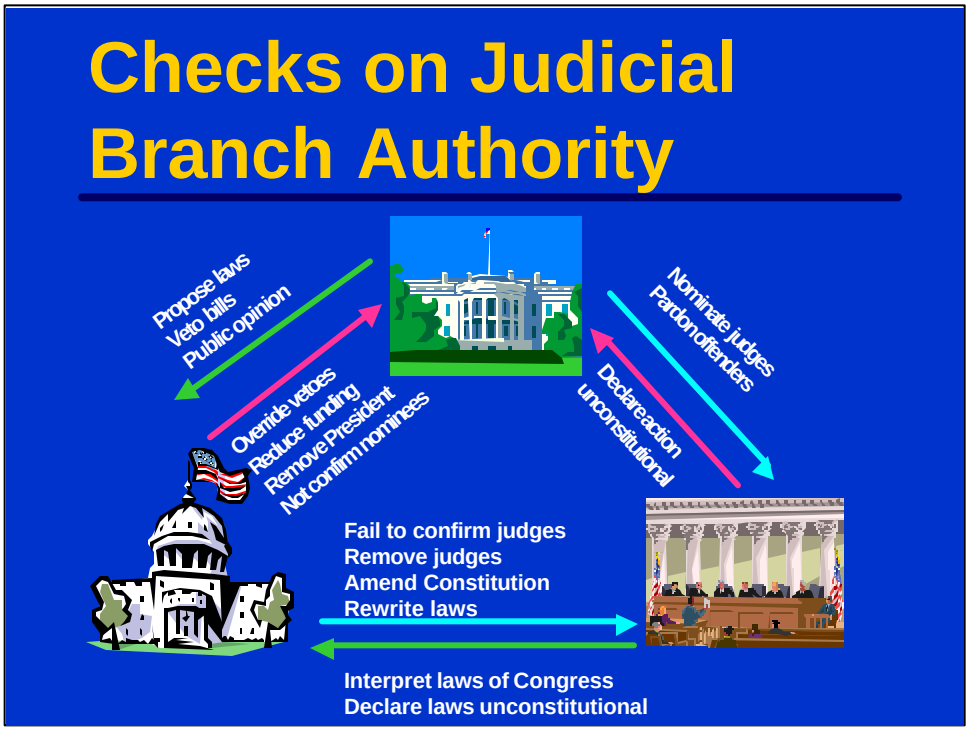


- According to the Constitution (Article III, Section I), Congress creates courts. The basic Federal court structure has changed little since it was instituted by the Judiciary Act of 1789. Courts established by the Judiciary Act are called "constitutional courts," since they are mentioned in the Constitution. Judges who preside over these courts are nominated by the President, confirmed by the Senate, and serve lifetime terms.
- Over the years, Congress has created other courts to handle cases for special purposes. These are called "legislative courts." For example, territorial courts, the U.S. Tax Court, and the U.S. Court of Appeals for the Armed Forces are legislative courts. Judges for these courts are also appointed by the President and confirmed by the Senate, but they serve fixed, limited terms.
- The Federal court system is divided in 12 geographic circuits. Each circuit has one court of appeals and district courts based on population (94 in total, staffed by more than 600 judges). A thirteenth court, the Court of Appeals for the Federal Circuit, hears cases that deal with patents, contracts, and financial claims against the Federal government, including "takings" of private property. Federal courts also have exclusive jurisdiction over bankruptcy. Bankruptcy cases cannot be filed in State court.
- Most cases that deal with Federal questions or offenses begin in district courts. District court rulings may be appealed to that Circuit's Appeals courts where panels of judges (usually three), not juries, decide cases. Decisions of Federal appellate courts are almost always final, as they may be appealed only to the Supreme Court which is able to hear a very small number of cases.
- Federal agencies have administrative law judges (ALJs) who also hear cases. However, they are employees of the executive, rather than judicial, branch. They conduct hearings and make decisions in proceedings involving executive branch agencies. EPA's ALJs hear cases involving permit appeals, for example.

Tribal Courts

- Criminal jurisdiction
  - States: crimes by non-Indians against non-Indians in Indian country
  - Concurrent with Federal government: enumerated crimes in Major Crimes Act
  - Tribes: crimes by Indians against Indians, Indians without victims, not enumerated
- Civil jurisdiction over claims in Indian country that implicate Indian interests

- During the past 30 years, most Tribes have organized their own courts to administer Tribal codes passed by Tribal councils and approved by the Secretary of the Interior. Tribal court systems vary from the highly structured, multiple court system of the Navajo Nation, to very informal single-judge courts. In recent years there has been an emphasis on re-establishing traditional methods of dispute resolution.
- Original Tribal jurisdiction over criminal acts is inherent, complete and exclusive over Tribal members and territory. That condition changed substantially in the late 19th century. *Mc Bratney* brought crimes by non-Indians against non-Indians in Indian country under the sole jurisdiction of the States. The ***Major Crimes Act and the Federal Enclaves Act*** granted concurrent jurisdiction to the Federal government for certain enumerated crimes. This did not eliminate Tribal jurisdiction, but it did pressure Tribes not to prosecute. The ***Indian Civil Rights Act (ICRA)***,as amended in 1986, limits the criminal punishments a Tribe can assess to no more than $5,000 and a year imprisonment. This essentially limited Tribal courts to jurisdiction over misdemeanor offenses.
- Tribes retain exclusive jurisdiction over crimes not listed in the Major Crimes Act, committed by Indians against Indians, or by Indians without victims. Tribes retain concurrent jurisdiction with the Federal government for all other crimes committed by Indians.
- For civil law, the original conception of Tribal jurisdiction remains essentially the same. In 1959, the Supreme Court recognized that Tribal courts have exclusive jurisdiction over claims arising in Indian country that implicate Indian interests. Two decades later, ***Montana v. United States*** held that the Crow Tribe could not prohibit a nonmember from fishing on nonmember lands within its reservation. However, the Court recognized that a "tribe may regulate . . . The activities of nonmembers who enter consensual relationships with the tribe or its members [or] the conduct of non-Indians on fee lands within its reservation when that conduct threatens or has some direct effect on the political integrity, the economic security, or the health and welfare of the tribe." This became known as the ***Montana* test**, and it is exceptionally important because a significant amount of the lands in Indian reservations has been alienated from Indian ownership.



- The most important power of the Federal courts is that of "judicial review," the power to interpret Federal laws and the Constitution. When Federal judges rule that laws or government actions are unconstitutional, they can profoundly affect public policy. As with the other branches, however, the Constitution also provides checks on judicial power.
- The President and Congress have some control of the judiciary with their power to confirm and appoint judges. Congress may also impeach judges (only seven have actually been removed from office), and alter the organization of the Federal court system.
- Congress also can circumvent court rulings by amending laws found to be unconstitutional. In rare instances, Congress also could seek to amend the Constitution.
- The Federal Courts have no enforcement power, and so, have limited ability to actually implement decisions that they make. If the President or another member of the executive branch chooses to ignore a ruling, there is very little that the Federal courts can do about it. For example, the Supreme Court ruled against the removal of the Cherokee from their native lands in 1831. President Andrew Jackson disagreed and proceeded with the removal. Nearly 4,000 Cherokee died on the Trail of Tears and the Supreme Court was powerless to enforce its decision.

EPA and the Judicial Branch

- Challenges to EPA
  - Third party challenges to regulatory authority and other Agency decisions
  - Citizen suits
- Suits brought by EPA
  - Enforcement actions
- Cases argued in court by the Department of Justice

- EPA can find itself in court both by challenges to its authority and by suits that it initiates.
- The ***Administrative Procedure Act*** allows for third parties challenges, within a specified time period, to rules promulgated by Federal agencies. Specific procedures as to where and how challenges are to be made differ among laws, but are typically included in each piece of legislation. For instance, SDWA requires that actions pertaining to establishment of National Primary Drinking Water Regulations be filed in the U.S. Court of Appeals for the District of Columbia. Petitions for judicial review of all other final SDWA actions and all actions under the Clean Water Act may be filed in the circuit in which the petitioner resides or transacts business.
- Both statutes also provide for "citizen suits." Any person may bring a civil action against anyone alleged to be in violation of the statute's requirements, or against the Administrator for an alleged failure to perform any nondiscretionary act or duty under the statute.
  - A recent example of a citizen suit is ***Save the Valley, Inc. v. US EPA*** (99 F.Supp.2d 981, S.D.Ind. 2000), in which the plaintiffs alleged that EPA was aware of widespread failures by Indiana to enforce NPDES permits for concentrated animal feeding operations and asked that the Federal government take over Indiana's NPDES enforcement program. The court dismissed the suit, ruling that the plaintiffs had not exhausted their administrative remedies.
  - In another case, ***Piney Run Preservation Assn. v. County Commissioners of Carroll County*** (50 F.Supp.2d 443, D. Maryland 1999), the plaintiffs alleged that the county-run sewage treatment plant violated the CWA by discharging water that exceeded upstream temperature. The court granted a summary judgment for the plaintiff based on a finding that the water temperature was exceeded, despite the fact that the defendant's NPDES permit did not include a limitation for heat. The court cited an earlier decision by the Ninth Circuit that held that the CWA "allowed a citizen suit to enforce water quality standards that had not been translated into numerical effluent limits on the permit."
- EPA may also initiate civil or criminal action against alleged violators.
- In neither case do EPA attorneys actually argue cases in court or negotiate settlements; this function is performed by the Department of Justice. EPA's attorneys provide support and work closely with DOJ attorneys to prepare cases.

Case Study: Judicial Review of EPA Rulemaking

- See Handout # I-6.
- Discussion questions:
  - Why did EPA contend that its action was justified so as to "avoid a major change in the substance of regulatory decisions related to chloroform"? To what extent does precedent matter in the realm of administrative rulemakings?
  - What might account for the Agency's decision to stick with the zero level MCLG when promulgating the 1998 rule, despite concluding that chloroform was "unlikely to be a carcinogen below a certain dose range"?
  - EPA contended that because the SAB report would not be available before the statutory deadline for the rulemaking, it was justified in retaining the zero standard. Is that a reasonable position? In writing SDWA, did Congress truly intend for the Agency to promulgate rules before it had complete scientific information?

History of Environmental Protection in America

Early State Protection Programs

- Water pollution control
  - States created water pollution control programs and public health programs to control disease outbreaks and provide sanitation
  - States also began to designate uses for State waters (e.g., agriculture, commercial, and industrial)

- In the early 1900s, reacting to the large number of typhoid and other disease outbreaks, States and local governments began establishing public health programs to protect water supplies. The first programs were ***water pollution control programs,*** which focused on keeping surface water supplies safe by identifying and limiting sources of contamination. Early water pollution control programs concentrated on keeping raw sewage out of surface waters used for drinking water.
- Minnesota adopted the term ***public waters*** in 1897. These public waters included only those larger meandered lakes and streams that were capable of beneficial public uses such as fishing, fowling, boating, or water supply. In 1919, the Office of State Drainage Commissioner was created and the power to regulate "legal" drainage was transferred from county to State government. By 1933, the new Department of Conservation (now known as the Department of Natural Resources) acquired the authority over drainage and water matters. The severe drought of the mid-1930's finally demonstrated the need for more serious protection of our surface and underground waters. The Department of Conservation considered all public waters to be ***waters of the State***, allowing the State to have permitting authority over these waters with respect to their use or appropriation for commercial, industrial, or agricultural purposes.
- In Louisiana, a statewide Health Department was established in the early 1800's, the first in the country. Many problems with health were associated with the climate and with the fact that the Mississippi River was the main transportation corridor for middle America. How people lived, the water that they drank, the sanitary conditions of their surroundings, and the general environment all contributed to the need for an agency that looked after the well-being of the people. In the late 1930s, the Department of Wildlife and Fisheries inaugurated a Water Pollution Control Division which monitored the impacts of fisheries' activities on water quality.

Early State Protection Programs

- Drinking water programs
  - Aimed at providing safe and adequate drinking water to a community
  - Treatment included disinfection and filtration
  - Reduced typhoid deaths

- Early ***drinking water programs*** were aimed at providing safe and adequate drinking water to a community. At first, these programs were not separate from the water pollution control programs since they also focused on identifying and maintaining safe sources of drinking water. For example, efforts were made to site intakes used to collect drinking water upstream from sewage discharges.
- Treatment of drinking water also began in the early 1900s, most notably in cities with above-average numbers of typhoid outbreaks, such as Philadelphia. The earliest treatment provided disinfection and sometimes filtration of surface water sources.
- Typhoid deaths dropped rapidly with the advent of widespread water quality and drinking water programs at the State and local levels in the early 1900s. In particular, chlorination and slow and rapid sand filtration had a significant impact.
- For example, in Albany, New York, prior to filtration of the public water supply in 1899, the typhoid death rate was 110 per 100,000. From 1900 to 1910 filtration was used and the typhoid death rate dropped to 20 per 100,000. In 1910, chlorination was introduced and the typhoid death rate for 1924 to 1929 dropped to zero.
- Another example is Montana. Montana enacted a statute that provided source water protection. It required treatment of discharges of wastewater to sources of drinking water or ice prior to discharge. Cities and industries complained about the costs and the legislature amended the Act in 1911 to force the Board of Health to prove there was a problem before treatment could be required. Subsequently, two major outbreaks of typhoid convinced the legislature that prevention was a better policy, and the Act was amended in 1915 to its original form.
- Early treatment systems were relatively simple and were based on many factors such as land availability, quality of raw water and the then-current understanding of causes of waterborne disease.
- Disinfection through chlorination was known to reduce microbials in water. Slow sand filtration was conducted in large beds of sand that had relatively slow filtration rates. In the slow sand process, a biological “skin” is formed in the first one-to-two inches of sand. Removal of particulates and pathogens is accomplished by sieving and scavenging by predatory organisms as water filters slowly through the sand.
- Slow sand filtration was used in North America as early as the 1600s in Spanish missions in California.

Early Federal Involvement

- 1899 Rivers and Harbors Act
- 1912 PHS "common cup" standards
- 1914 PHS standards for interstate carriers

Public Health Service Examining Board, ca 1912

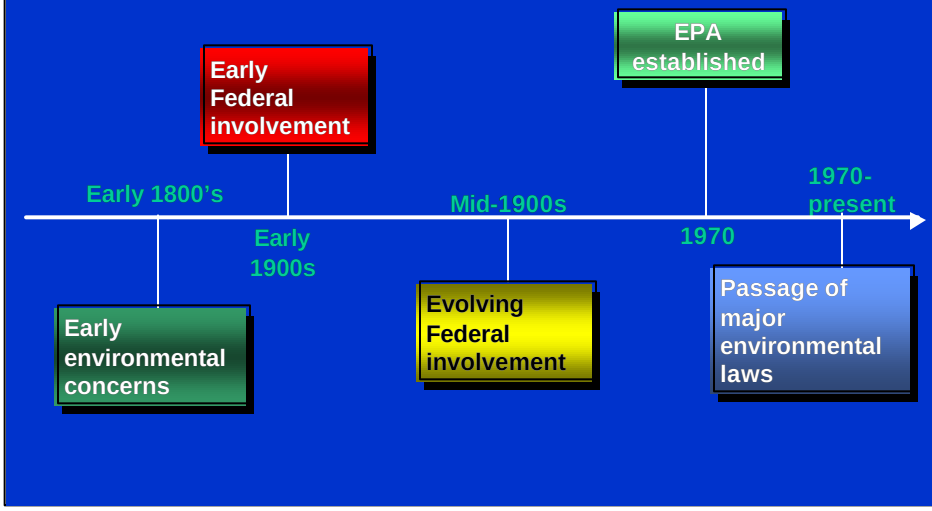
- Early Federal laws were limited to activities that State laws could not address, primarily ***interstate commerce.*** These water statutes primarily dealt with wastewater issues.
- The ***Rivers and Harbors Act of 1899*** applied primarily to discharges such as mine tailings, rocks, or other objects that would interfere with navigation.
- The Interstate Quarantine Act provided Federal authority to establish drinking water regulations to prevent the spread of disease from foreign countries to the States or from State to State. This resulted in promulgation of the first interstate quarantine regulations in 1894. The first water-related regulation, adopted in 1912, prohibited the use of the common cup on carriers of interstate commerce, such as trains.
- The ***Public Health Service***, which was originally established in 1798 under the Office of the Surgeon General to provide marine hospitals for merchant seamen, began to study illnesses associated with contaminated drinking water. In 1914, the Public Health Service established the first Federal drinking water standards. The standards applied to water supplied to interstate carriers–primarily passenger trains. The standards included a 100/cc (100 organisms per cubic centimeter) limit for total bacterial plate count. Further, they stipulated not more than one of five 10 cc portions of each sample examined could contain *B. coli* (now called *E. coli*). The standards were legally binding only on water supplies used by interstate carriers, but many State and local governments adopted them as guidelines.

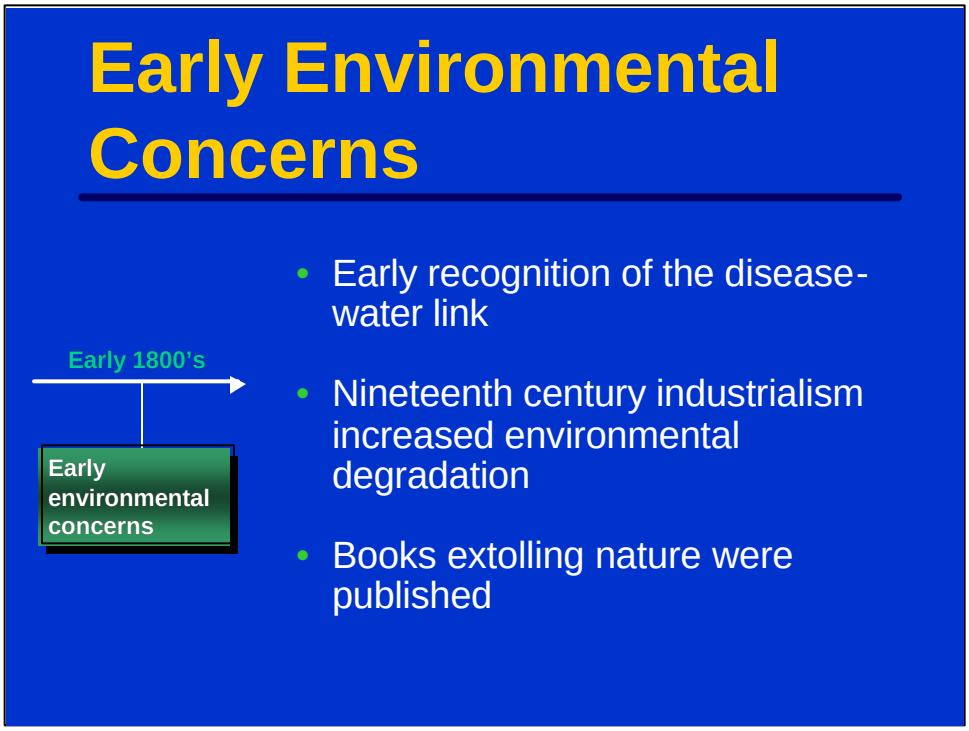
Early Federal Involvement

- Public Health Service
  - Ground water protection and chemical pollution
  - Studies and funding
- Federal statutes (no enforcement authority)
  - Water Pollution Control Act of 1948
  - Federal Water Pollution Control Act of 1956
  - Water Quality Act of 1965

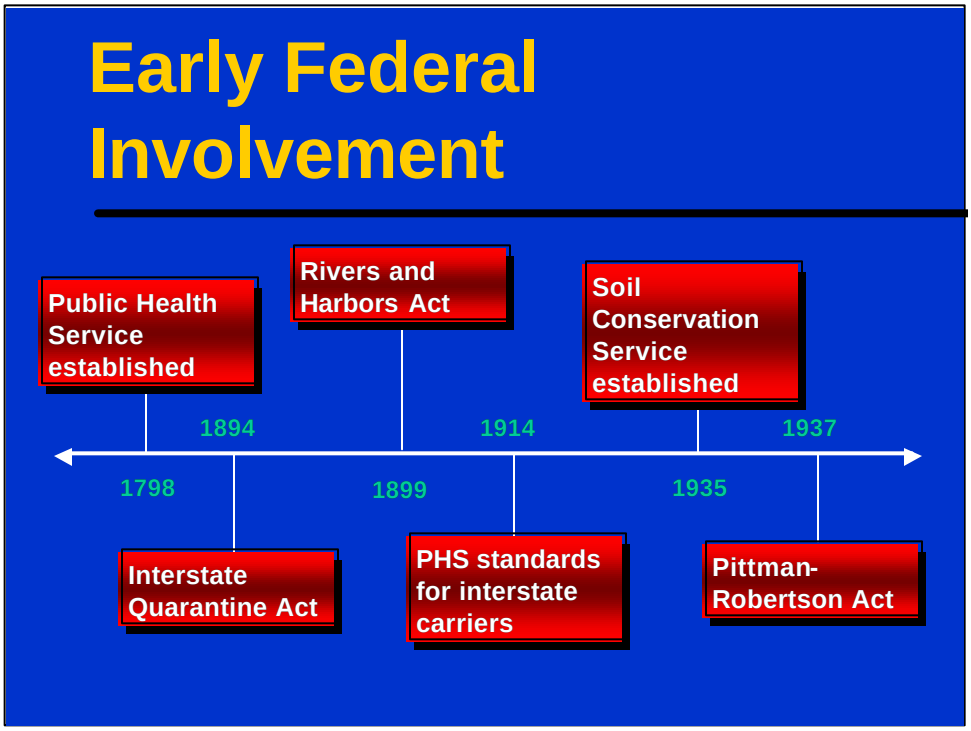
- During the late 1940s, the Federal government initiated additional programs to increase the public's access to safe and adequate drinking water and sewage facilities. In 1944 Congress enacted legislation that consolidated public health functions in the Department of Health, Education and Welfare (now Health and Human Services). It began focusing on ground water protection and chemical pollution. It had little statutory authority, but carried out extensive research projects.
- The ***Federal Water Pollution Control Act of 1948*** funded research support for States, and the ***Federal Water Pollution Control Act of 1956*** initiated the Construction Grants Program to finance construction of publicly owned treatment works (POTWs) to collect and treat communities' sewage. The ***Water Quality Act of 1965*** required that States review, establish, and revise water quality standards. States and Tribes adopt water quality standards to protect surface water. Water quality standards consist of the "designated beneficial use" (such as public water supply, recreation, or agricultural); the quality of the water that will protect the designated use or uses (i.e., the criteria); and an antidegradation policy.
- These early Federal programs provided virtually no Federal enforcement authority. Congress was very careful to respect that part of the Constitution that reserved to the States all authority not expressly given to the national government. Enforcement under the 1948 statute was limited to a pollution problem involving "interstate waters. . . which endangers the health or welfare of persons in a state other than that in which the discharge originates, and is . . . declared to be a public nuisance."

History: Creation of the Agency

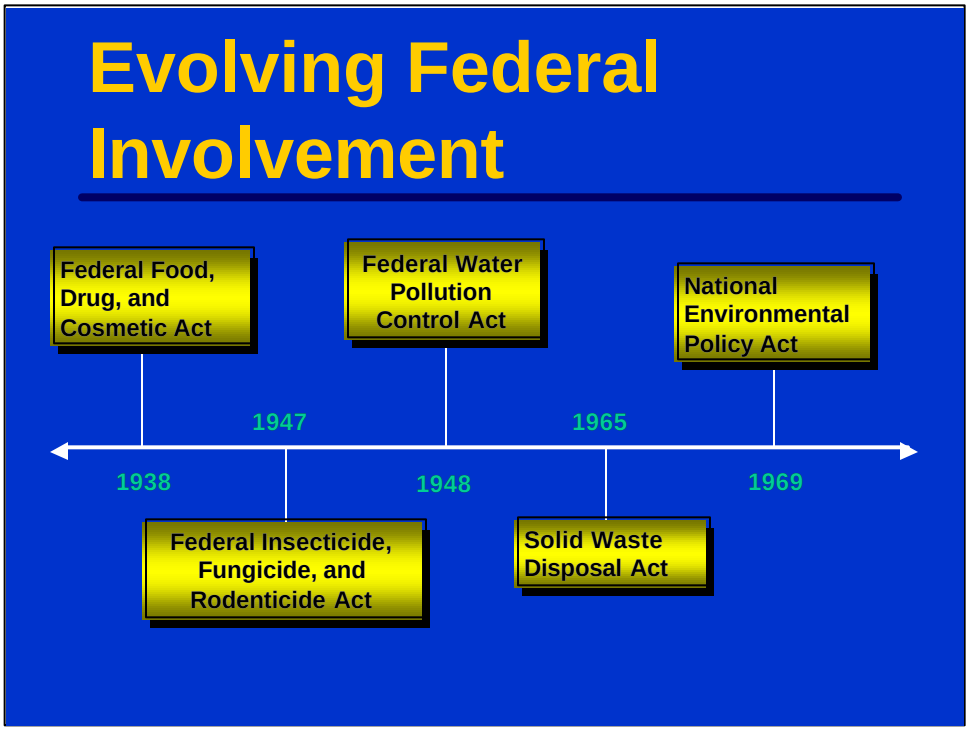




- The realization of the value of the environment and an appreciation of the consequences of its destruction dates back several centuries in America. For example, as early as 1652, the city of Boston established a public water supply, a step followed in the next century by several towns in Pennsylvania. By 1800, 17 municipalities had taken similar measures to protect citizens from unfit drinking water sources.
- Industrialism in the nineteenth century widened the impact of environmental degradation. Literary people were the first to sense the meaning of this trend. Herman Melville's epic novel *Moby Dick* (1851) and Henry David Thoreau's *Walden, or Life in the Woods* (1854) emphasized, respectively, the power and the tranquility of nature. John Burroughs published 27 volumes of intimate, experiential nature essays. John Muir, the Scottish prophet of the rugged outdoors, set down his observations in a series of books, beginning with *The Mountains of California* in 1894.
- President Theodore Roosevelt, who undertook a western camping trip with Muir in 1903, came to symbolize the campaign for conservation, which gained steadily in political popularity. During and after his administration, the use and retention of natural resources became a preoccupation of government.

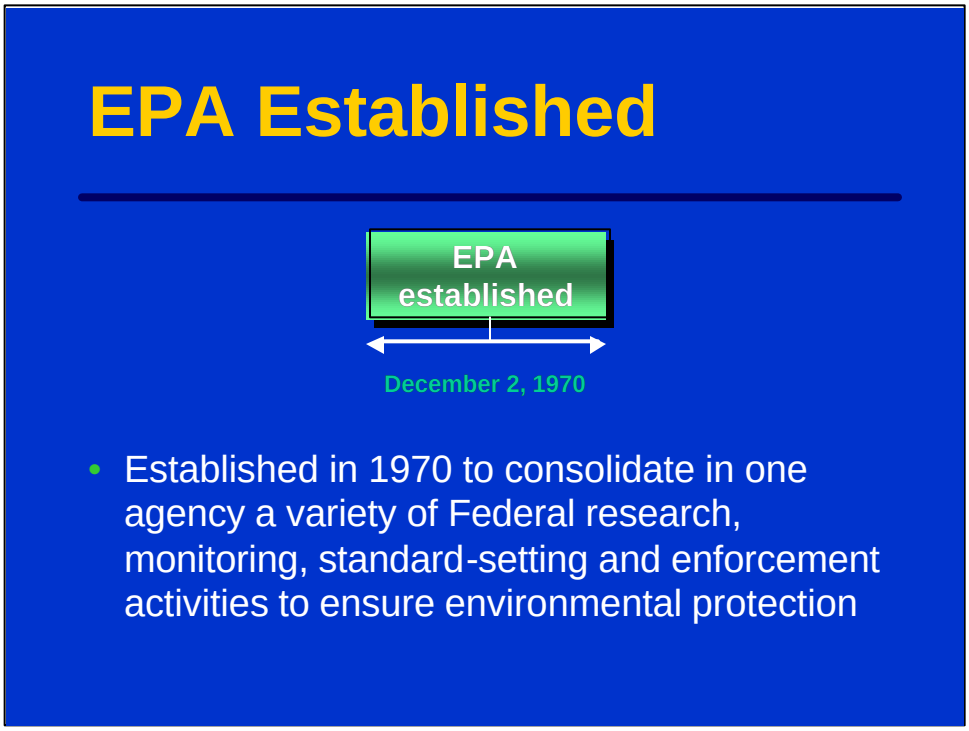


- The Public Health Service (PHS), which was originally established under the Office of the Surgeon General, began to study illnesses associated with contaminated drinking water. However, early Federal laws were limited to activities that State laws could not address, primarily interstate commerce. In 1944 Congress enacted legislation that consolidated public health functions in the Department of Health, Education and Welfare (now Health and Human Services). It began focusing on ground water protection and chemical pollution. PHS had little statutory authority, but carried out extensive research projects.
- The Rivers and Harbors Act of 1899 applied primarily to discharges that would interfere with navigation such as mine tailings, rocks, or other objects.
- The Interstate Quarantine Act provided Federal authority to establish drinking water regulations to prevent the spread of disease from foreign countries to the States or from State to State.
    - This resulted in promulgation of the first interstate quarantine regulations in 1894.
    - The first water-related regulation, adopted in 1912, prohibited the use of the common cup on carriers of interstate commerce, such as trains.
    - In 1914, the Public Health Service established the first Federal drinking water standards. The standards applied to water supplied to interstate carriers – primarily passenger trains.
- President Franklin Roosevelt's New Deal enacted a number of natural resource measures.
    - The Soil Conservation Service, founded in 1935, applied scientific practices to reduce the erosion of agricultural land.
    - The depletion of animal life received recognition in the passage of the 1937 Pittman-Robertson Act, establishing a fund for State fish and wildlife programs from the proceeds of Federal taxes on hunting and fishing equipment.

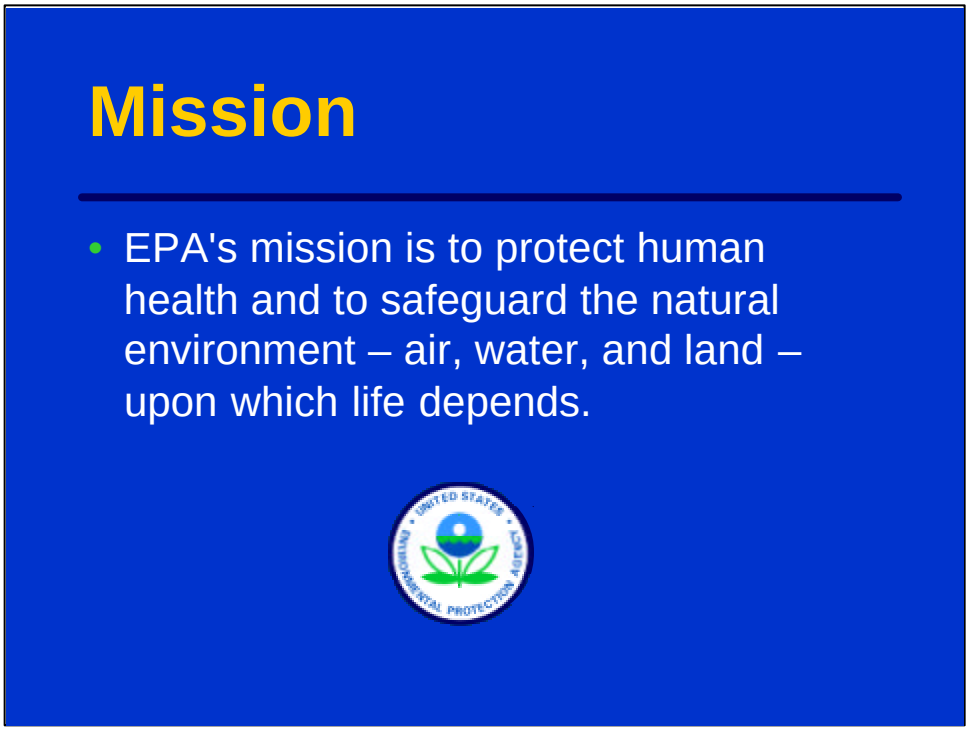


- The Federal, Food, Drug, and Cosmetic Act (FFDCA, commonly known as the Pure Food Law) provided for regulation of pesticides on food, primarily the arsenicals such as lead arsenate and Paris Green. It required that color be added to the formulations to prevent their misuse and set tolerances for pesticide residues, for example, arsenic and lead, in food where these materials were necessary for production of a food supply.
- After the Second World War, the concept of ecology – which valued esthetics and biology over efficiency and commerce – began to penetrate the public mind.
- In 1947, Congress enacted the ***Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)*** which required manufacturers to register their pesticides.
- The ***Water Pollution Control Act of 1948*** funded research support for States.
- Rachel Carson's 1962 classic *Silent Spring* launched the modern idea of environmentalism: a political movement that demanded that government not only preserve the Earth, but act to regulate and punish those who polluted it.
- The Solid Waste Disposal Act (SWDA) was enacted in October 1965. The principal purpose of the SWDA was to assist States, local governments and interstate agencies to plan, develop, and conduct solid waste disposal programs.
- Congress enacted the National Environmental Policy Act (NEPA) in 1969, and the government's role became the protector of earth, air, land and water. The law declared Congressional intent to "create and maintain conditions under which man and nature can exist in productive harmony,"and to "assure for all Americans safe, healthful, productive, esthetically and culturally pleasing surroundings."

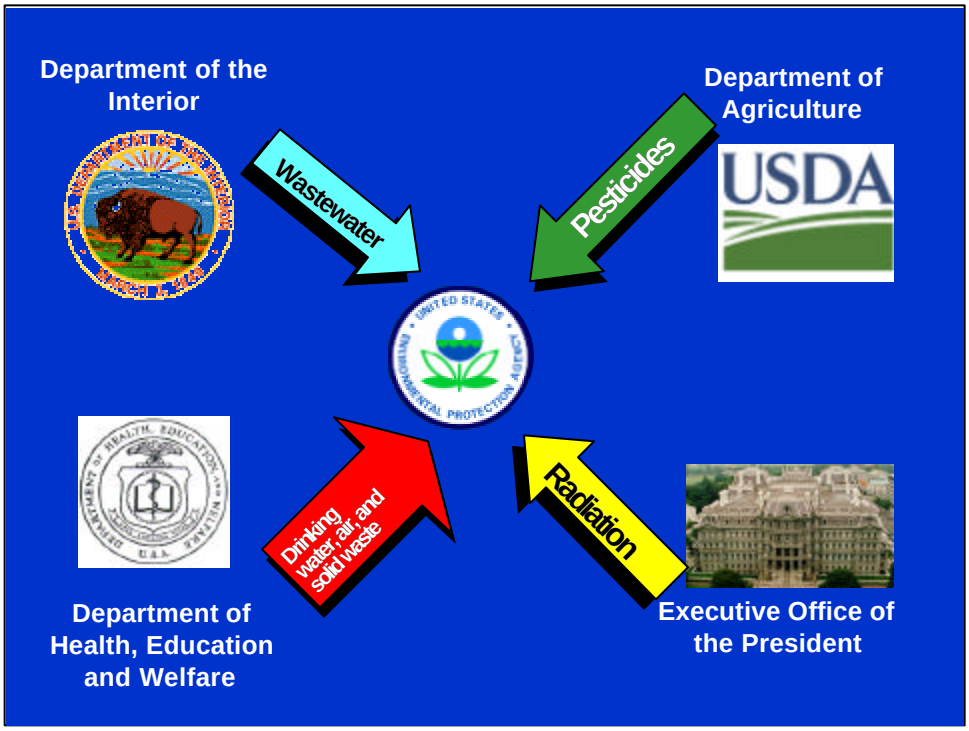
- EPA was founded in 1970. What was the mood of the country in the late 1960s and early 1970s? How might that have contributed to the creation of EPA?



- Public support for environmental protection began to explode in the late 1960s. The creation of EPA in 1970 is a direct result of strong, vocal public support for the creation of Federal programs to protect the environment. It led to the creation of EPA, which never would have been established had it not been for public demand. Public opinion remains ***absolutely essential*** for anything to be done on behalf of the environment.
- On July 9, 1970, President Nixon submitted to Congress Reorganization Plan #3 of 1970 to establish an ***Environmental Protection Agency*** (EPA). On ***December 2, 1970***, EPA was established in the executive branch as an independent agency. A major factor in its establishment was an implicit understanding of the need for Federal enforcement authority.
- The recognition of the need for Federal enforcement authority lies in sharp contrast to traditional American reverence of individual liberty. Government interference in business had always been considered on a par with interference in citizens' personal lives. An example of this is the program in the 1930s to eradicate yellow fever from the Americas. Dr. Fred Lowe Soper, a leader in this effort, began a program to eliminate the *Aëdes aegypti* mosquito, the carrier of yellow fever, from Brazil. By presidential edict, Soper's mosquito inspectors were given the right to enter all homes and businesses to inspect and spray for mosquitoes. After achieving success in Brazil, other South and Central American nations joined in the eradication program. When the program reached the border of the United States, however, neither the Federal nor local governments had the authority to enter private property to search for mosquitoes. Thus, the program came to a halt and Latin America was gradually reinfested with mosquitoes from the U.S.
- EPA was given the power to respond to environmental problems in a manner far beyond the previous capability of our pollution control programs. EPA would have the capacity to undertake research on important pollutants irrespective of the media in which they appear, and on the effect of these pollutants on the total environment. EPA would also be able, in concert with the States, to set ***and enforce*** standards for air and water quality and for individual pollutants.



- EPA's ***mission*** is to protect human health and to safeguard the natural environment– air, water, and land– upon which life depends. EPA's roles and functions as stated in Reorganization Plan # 3 are:
  - Establishing and enforcing environmental protection standards consistent with national environmental goals;
  - Conducting research on the adverse effects of pollution and on methods and equipment for controlling it; gathering of information on pollution; and using this information in strengthening environmental protection programs and recommending policy changes;
  - Assisting others, through grants, technical assistance and other means in arresting pollution of the environment; and
  - Assisting the Council on Environmental Quality in developing and recommending to the President new policies for the protection of the environment.



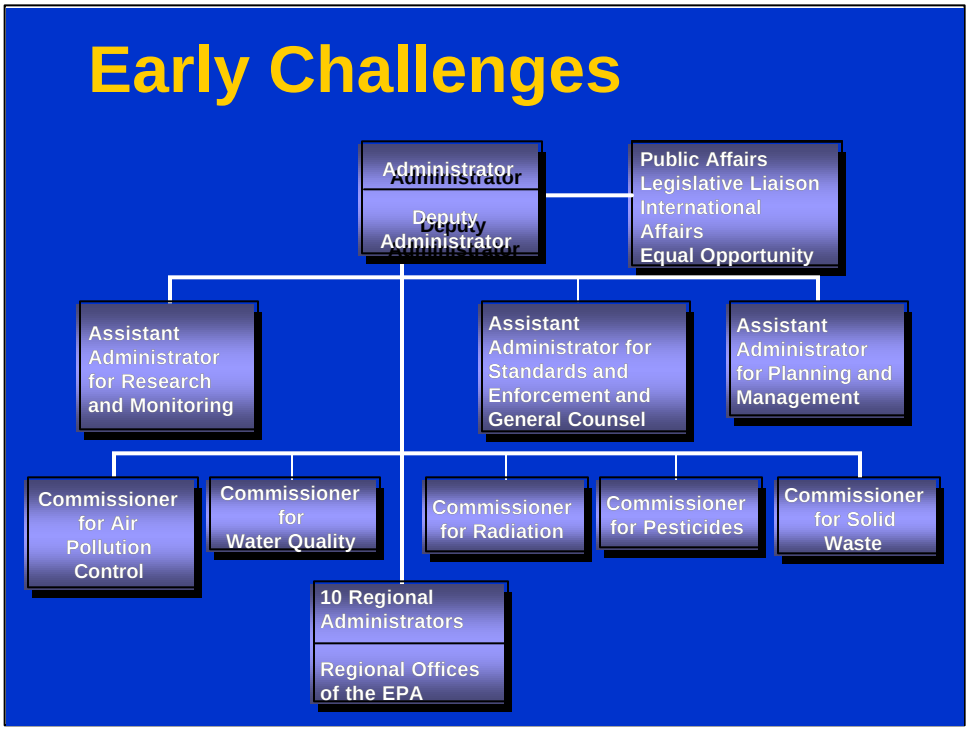
- Reorganization Plan #3 that formed EPA moved the drinking water, air pollution control, and solid waste programs from the Department of Health, Education and Welfare (HEW) to EPA. As a result, some Public Health Service officers were detailed to EPA.
- Water pollution control moved from the Federal Water Pollution Control Administration within the Department of the Interior to EPA.
- The control of pesticides moved from the Department of Agriculture to EPA. Some pesticide functions from the Food and Drug Administration (within HEW) and the Department of the Interior were also transferred to EPA.
- Different aspects of radiation control moved from the Executive Office of the President, HEW, and the Atomic Energy Commission to EPA.

EPA's First Administrator

"I thought that pollution could be solved by mild coercion. Once the Federal government set some standards and began to enforce them, people would fall in line and the problem would essentially disappear."

William Doyle Ruckelshaus
EPA Administrator
1970-1973
1983-1985

- William Doyle Ruckelshaus served as the first EPA Agency Administrator, from December 1970 to April 1973. He served a second time from 1983 to 1985.
- In an oral interview with EPA's History Office, Ruckelshaus responded to a question about his first year as Administrator, "I thought that pollution could be solved by mild coercion. Once the Federal government set some standards and began to enforce them, people would fall in line and the problem would essentially disappear. I thought we knew what the bad pollutants were, knew at what levels they caused adverse health and environmental effects, and knew the technology needed to combat them. Finally, I thought all of this could be done at a reasonable cost within a reasonable time."
- By 1973, Ruckelshaus' views on the environment had changed, saying, "The environment is a problem you must tend to everlastingly. It doesn't go away. It's not like putting out a fire or even building a highway. You can't do it, then brush your hands and say, "On to the next task." You have to keep at it *all* the time, otherwise it starts to slide back. But how do you keep attention – both institutional attention and public attention – focused on that kind of a problem? New issues crop up all the time, therefore, measuring progress is difficult. Also, because of the constant pressure of struggling not to fall behind, the agency and its people may lose heart. It's an ongoing dilemma which EPA is still fighting."



- Ruckelshaus' mission was to "clean up America." As the first Administrator, his first priority was to establish the credibility of the Agency and demonstrate the willingness of the central government, and the political process, to respond to the environmental concerns. It was also crucial to organize the Agency properly and set out some achievable goals.
- Mr. Ruckelshaus said the most complicated problem he faced was how to successfully manage the relationship between the Agency and the White House; in particular, the Office of Management and Budget (OMB). OMB was not impressed with the Congressional mandate to provide environmental protection regardless of cost, as some of the statutes demanded. This situation acted as a serious impediment to the effectiveness of the EPA Administrator, who was immediately responsible to Congress to carry out its wishes.
- During EPA's formative years, Ruckelshaus concentrated on developing the new agency's organizational structure; taking enforcement actions against severely polluted cities and industrial polluters; setting health-based standards for air pollutants and standards for automobile emissions; requiring States to submit new air quality plans; and banning the general use of the pesticide DDT.
- In an oral interview with EPA's History Office, Ruckelshaus explained that before EPA was established, "there was really no overall Federal enforcement to speak of. As a result of weak public demand and local fear of job losses, you didn't have centralized enforcement responsibility. It was left to the States, and they competed with one another so fiercely for the location of industry that they weren't very good regulators of those industries."

Early Enforcement Actions

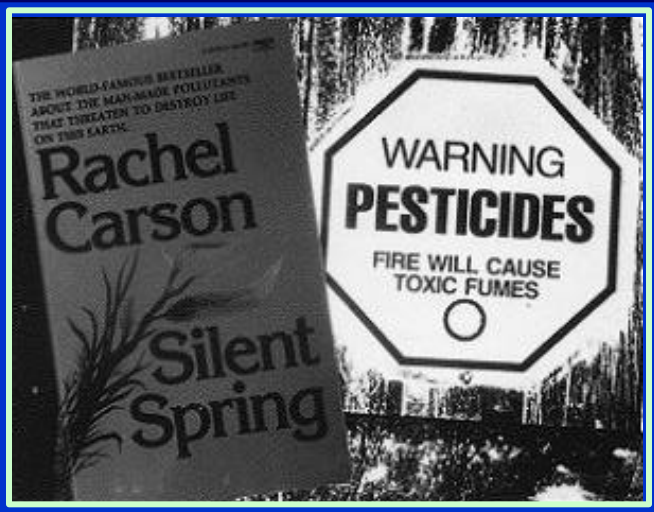
The Armco plant on the Houston Ship Channel was the site of one of EPA's first major confrontations with corporate pollution

- Seven days after taking the helm at EPA, Ruckelshaus delivered a speech before the annual Congress of Cities – a meeting attended by U.S. big city mayors. Ruckelshaus announced that EPA was at that moment serving the cities of Atlanta, Detroit, and Cleveland with formal "180-day notices" that directed them to stop violating Federally-sponsored State water quality standards. These cities had fallen chronically behind on previous commitments to Federal and State officials to stop discharging pollutants into neighboring waterways.
- Ruckelshaus hoped that EPA could work in concert with States to implement pollution control measures. The Agency would take enforcement action only when municipal and State governments needed prodding. EPA would act as a "gorilla in the closet" for the cities and States to use to frighten polluters into submission.
- Despite the wish to work cooperatively, EPA's relationship with State and local governments started off turbulently and stayed that way. As in the cases with Atlanta, Detroit, and Cleveland, governments often found EPA threatening them for their own shortcomings. Furthermore, the Agency's existence stood as a Federal reproach to States' inactivity or ineffectiveness in responding to public demands for cleaner air and water.
- Ruckelshaus knew that EPA's effectiveness depended on forcing the most intransigent businesses to take responsibility for the wastes they produced.
- In one of the first struggles to discipline big industrial polluters, Ruckelshaus engaged Armco Steel. In 1971, a Federal district court judge found Armco guilty of dumping over half a ton of toxic chemicals and between three and six tons of ammonia into the Houston Ship Channel daily. Thus, Armco, following EPA guidelines, installed waste water treatment technology at its Houston facility.

Controlling Air Pollution

- Senator Edmund Muskie of Maine, chairman of the water pollution subcommittee of the Senate Public Works Committee, sponsored the Clean Air Act of 1967; but under pressure from consumer advocates such as Ralph Nader to improve its effectiveness, Senator Muskie toughened the Act and made EPA directly responsible for establishing limits on air pollutants and enforcing them. The Clean Air Act was enacted in 1970.
- Cleaning the air was one of EPA's toughest challenges. The Agency eased into clean air issues slowly in order to give researchers time to do their work before legislative deadlines forced Ruckelshaus to promulgate air quality standards.
- In 1970, people living in smoggy cities wanted clean air– air that did not aggravate respiratory problems, burn the eyes, smell acidic, or restrict visibility. They wanted industries to stop pumping plumes of black smoke out of tall chimneys. They wanted automobile manufacturers to build cars that neither created nor contributed to the smog problem.
- When EPA published its ambient air quality standards in 1972 and began approving State and regional plans to meet those standards, the Administrator and the Agency faced intense scrutiny from environmental groups, Congressmen, the White House, and the industrial community. But, in clean air, as with most regulatory efforts, compromises made to satisfy the legitimate demands of so many interested parties resulted in an unsatisfactory outcome.
- Many people lashed out at the measures imposed by the Clean Air Act; they believed it to be too intrusive. They believed restrictions on automobiles infringed on personal liberty. It came down to a decision between personal liberty and clean air, and the desire for personal liberty overrode the concerns for clean air. EPA originally required automobile manufacturers to reduce auto exhaust emissions by 90 percent over five years. Automobile manufacturers said the technology to meet these standards was not available and could not be developed in time to comply with the standards.
- In 1973, despite opposition to the Clean Air Act, automobile manufacturers agreed to adopt the catalytic converter as a means to reduce automobile emissions by 85 percent in 1975 year model cars. While this fell a little short of the Clean Air Act goals, the solution satisfied most car makers and EPA officials.

Controlling Pesticides



- Widespread public opposition to DDT (dichloro-diphenyl-trichloroethane) began with the publication of Rachel Carson's *Silent Spring*. Reporting the effects of DDT on wildlife, Carson demonstrated that DDT not only infiltrated all areas of the ecological system, but was exponentially concentrated as it moved to higher levels in the food web.
- By 1968 several States had banned DDT use.
- In January 1971, Ruckelshaus was ordered by the tribunal of the U.S. Court of Appeals in the District of Columbia to begin the process of suspending DDT registration, and to consider suspending its registration immediately. At the end of a 60-day review process, he reported that he had found no good reason to suspend DDT registration immediately.
- Throughout the spring of 1972, Ruckelshaus reviewed evidence EPA had collected during the Agency's hearings on DDT cancellation and reports prepared by two DDT study groups. Both studies suggested that DDT be phased out due to the chemical's persistent presence in ecosystems and noted that other studies had suggested that DDT posed a carcinogenic risk to humans.
- In June 1972, Ruckelshaus banned DDT application in the United States.
- This decision set a precedent for regulatory decision making – Ruckelshaus and the Agency chose to err on the side of protecting human health at the expense of economic considerations.

Major Environmental Statutes

- In its early years, EPA administered a limited number of statutes:
  - National Environmental Policy Act;
  - Clean Air Act;
  - Federal Water Pollution Control Act (later to become the Clean Water Act);
  - Solid Waste Disposal Act (later to become the Resource Conservation and Recovery Act);
  - Federal Insecticide, Fungicide, and Rodenticide Act; and
  - Safe Drinking Water Act.
- Through the years, Congress has amended these statutes to provide stronger authorization and enacted new statutes to expand EPA's domain. The Agency now administers 13 major statutes that we will discuss here.

Federal Insecticide, Fungicide and Rodenticide Act (1947)

- Evaluate potential new pesticides and uses
- Review older pesticides against current standards
- Promote reduced risk pesticides and pest management activities
- Communicate safe practices

- ***The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)*** is a comprehensive statute that addresses the sale, distribution, and labeling of pesticides, as well as the certification and training of pesticide applicators. It was first enacted in 1947 and has been amended many times since then.
- ***Evaluate Potential New Pesticides and Uses.*** Federal law requires that before anyone can sell or distribute a pesticide in the United States, they must obtain a registration, or license, from EPA. Before registering a new pesticide or new use for a registered pesticide, EPA must first ensure that the pesticide, when used according to label directions, can be used with a reasonable certainty of no harm to human health and without posing unreasonable risks to the environment.
- ***Review Older Pesticides Against Current Standards.*** EPA also reviews older pesticides to ensure that they meet current health, safety, and environmental standards. The goal is to update labeling and use requirements and reduce risks associated with the active ingredients in older pesticides – those first registered when the standards for government approval were less stringent than they are today.
- ***Promote Reduced Risk Pesticides and Pest Management Alternatives.*** EPA has shifted from simply regulating pesticides to promoting systems of pest management that better protect health and the environment, and enhance the quality of our lives. This approach recognizes that pesticides are only one element in controlling pests and that, in some cases, nonchemical alternatives can be as effective as chemical pesticides with fewer health or environmental risks.
- ***Communicate Safe Practices through Pesticide Field Programs.*** EPA currently manages four major pesticide field programs involving work with pesticide users and others to ensure that they carry out safe practices in the field. These programs include implementing worker protection regulations for agricultural workers, protecting endangered species, protecting ground water, and ensuring applicators that use the more hazardous pesticides are appropriately trained and certified.

National Environmental Policy Act (1969)

- Establishes national framework for protecting the environment
- Requires environmental assessments (EAs) and environmental impact statements (EISs) from all Federal agencies
- EPA reviews and comments on the EAs and EISs

- The National Environmental Policy Act (NEPA) establishes a broad national framework for protecting our environment. NEPA's basic policy is to assure that all branches of government give proper consideration to the environment prior to undertaking any major Federal action that significantly affects the environment.
- NEPA requirements are invoked when airports, buildings, military complexes, highways, parkland purchases, and other Federally-funded activities are proposed. Environmental Assessments (EAs) and Environmental Impact Statements (EISs), which are assessments of the likelihood of impacts from alternative courses of action, are required from all Federal agencies and are the most visible NEPA requirements.
- EAs are prepared to provide sufficient data and analysis to determine whether an EIS or finding of no significant impact (FONSI) is required. Where EPA determines that a categorical exclusion is appropriate or and EIS will be prepared, there is no need to prepare a formal EA.
- When the environmental review indicates that a significant environmental impact may occur and significant adverse impacts cannot be eliminated by making changes in the project, a notice of intent to prepare an EIS is published in the *Federal Register*. A draft EIS is prepared and distributed to the stakeholders. After external coordination and evaluation of the comments received, a final EIS is prepared and disseminated. The final EIS also lists any mitigation measures necessary to make the recommended alternative environmentally acceptable.
- EPA reviews and comments on the EISs and EAs to ensure that Federal facilities take actions necessary to prevent, control, and abate environmental pollution.

Clean Air Act (1970)

- Protects the nation's air resources
- Authorizes EPA to establish national standards
- Major Provisions
  - National Ambient Air Quality Standards
  - New Source Performance Standards
  - Mobile Sources
  - Sulfur Dioxide and Nitrous Oxide Emissions
  - Corporate Average Fuel Economy

- The Clean Air Act was first enacted in 1970. Major provisions of the Clean Air Act include:
  - ***National Ambient Air Quality Standards.*** EPA has established national ambient air quality standards (NAAQSs) to limit levels of pollutants including carbon monoxide, lead, nitrogen dioxide, particulate matter, ozone and sulfur dioxide. Geographic areas that meet NAAQSs for a given pollutant are classified as attainment areas; those that do not meet NAAQSs are classified as non-attainment areas. Each State must develop a State Implementation Plan to identify sources of air pollution and to determine what reductions are required to meet Federal air quality standards.
  - ***New Source Performance Standards.*** EPA is authorized to establish New Source Performance Standards (NSPSs), which are nationally uniform emission standards for new stationary sources falling within particular industrial categories. NSPSs are based on the pollution control technology available to that category of industrial source.
  - ***Mobile Source Controls.*** EPA uses reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps, among other mechanisms, to regulate mobile air emission sources. Local governments may be subject to these standards if they operate vehicles or large fleets of vehicles or if they conduct fueling operations.
  - ***Sulfur Dioxide/Nitrous Oxide Emission Controls.*** EPA has established a sulfur dioxide/nitrous oxide emissions program designed to reduce the formulation of acid rain. Sulfur dioxide releases will be reduced by granting to certain sources limited emissions allowances, which are below previous levels of sulfur dioxide releases. Local governments that operate municipal waste combustors, sewage sludge incinerators, or large boilers/generators may be subject to these requirements.
  - ***Corporate Average Fuel Economy Standards.*** Corporate Average Fuel Economy (CAFE) standards require vehicle manufacturers to comply with the gas mileage, or fuel economy, standards set by the Department of Transportation. CAFE values are obtained by combining the city and highway fuel economy test results and computing an average that is weighted by vehicle sales. EPA administers the testing program that generates the fuel economy data and determines the procedures for calculating the fuel economy values for CAFE. The National Highway Traffic and Safety Administration is authorized to assess penalties based on the information EPA supplies and to modify the standards.

Coastal Zone Management Act (1972)

- Encourages States and tribes to protect natural coastal resources
  - Wetlands
  - Floodplains
  - Estuaries
  - Beaches
  - Barrier islands
  - Coral reefs

- ***The Coastal Zone Management Act (CZMA)*** encourages States and Tribes to preserve, protect, develop, and, where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and wildlife using those habitats. It includes areas bordering the Atlantic, Pacific, and Arctic Oceans, Gulf of Mexico, Long Island Sound, and Great Lakes.
- A unique feature of this law is that participation by States and Tribes is ***voluntary***. To encourage States and Tribes to participate, the Act makes Federal financia l assistance available to any coastal State, Tribe, or territory, including those on the Great Lakes, that is willing to develop and implement a comprehensive coastal management program. Most Eligible States and Tribes are participating in the program.
- In its reauthorization of the Coastal Zone Management Act in 1990, Congress identified ***nonpoint source pollution*** as a major factor in the continuing degradation of coastal waters. Congress also recognized that effective solutions to nonpoint source pollution could be implemented at the State, Tribal and local levels.

Marine Protection, Research, and Sanctuaries Act (1972)

- Ocean Dumping Act
- Requires a permit to dump materials in the ocean
- Authorizes EPA to develop criteria for evaluating permit applications

- ***The Marine Protection, Research, and Sanctuaries Act (MPRSA)***, more commonly known as the Ocean Dumping Act (1988 Amendment), prohibits the transportation of material from the United States for the purpose of ocean dumping, transportation of material from anywhere for the purpose of ocean dumping by U.S. agencies or U.S.-flagged vessels, and dumping of material transported from outside the U.S. into the U.S. territorial sea, unless authorized by a permit.
- EPA is authorized to develop ocean dumping criteria to be used in evaluating permit applications. Permits can be issued if the dumping does not "unreasonably degrade or endanger" human health, welfare, or the marine environment. EPA is the permit authority for all materials except dredging. EPA works with the U.S. Army Corps of Engineers and co-develop permits for dredged materials.
- General permits, ones that do not require an application for a specific action, have been issued for specified classes (e.g., burial at sea, transportation of target vessels [specifically applies to U.S. Navy], transportation and disposal of vessels) of material that have been determined to have a minimal adverse environmental impact.
- EPA is also authorized to work with other Federal agencies to enforce MPRSA and set forth certain surveillance and other enforcement activities. For example, the Coast Guard conducts surveillance and other appropriate enforcement activities to prevent unlawful dumping and transportation of material for dumping, and provides information on enforcement activities and evidentiary material to EPA and the Department of Justice.
- MPRSA also established a research program on long-range effects of pollution, overfishing and man-induced changes of ocean ecosystems; and ocean dumping and other methods of waste disposal. The statute also created programs to monitor environmental conditions and designate and regulate marine sanctuaries.

Resource Conservation and Recovery Act (1976)

- Addresses non-hazardous and hazardous waste management activities
- Establishes a "cradle-to-grave" system
- Requires hazardous waste treatment, storage and disposal facilities to obtain a permit
- Focuses on active and future facilities

- ***The Resource Conservation and Recovery Act (RCRA)*** is an amendment that rewrote the Solid Waste Disposal Act. It addresses nonhazardous and hazardous waste management activities. RCRA establishes a "cradle-to-grave" system that sets criteria to identify hazardous waste and governs it from the point of generation to its ultimate disposition.
- Regulated entities that generate hazardous waste are subject to waste accumulation, manifesting, and record keeping standards. Facilities that store, treat or dispose of hazardous waste must obtain a permit either from EPA or from a State agency that EPA has authorized to implement the permitting program. Facilities that treat, store or dispose of hazardous waste must have contingency plans, emergency procedures, financial assurance mechanisms, meet unit-specific standards, and must adhere to record keeping and reporting requirements.
- The 1986 amendments to RCRA contain provisions requiring facilities to clean up releases of hazardous waste or constituents from solid waste management units at RCRA treatment, storage, and disposal facilities. It also added provisions addressing environmental problems that could result from underground tanks storing petroleum and other hazardous substances. RCRA focuses only on active and future facilities and does not address abandoned or historical sites.

Toxic Substances Control Act (1976)

- Authorizes EPA to collect data on chemicals
- EPA can require the reporting or testing of chemicals that pose an environmental or human health hazard
- EPA can ban the manufacture and import of chemicals that pose unreasonable risks

- ***The Toxic Substances Control Act (TSCA)*** gave EPA the ability to collect data on chemicals to evaluate, assess, mitigate, and control risks that may be posed by their manufacture, processing, and use. EPA tracks 75,000 industrial chemicals currently produced or imported into the United States. EPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human health hazard. EPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.
- TSCA standards may apply at any point of a chemical's life cycle. EPA has established an inventory of chemical substances. If a chemical is not already on the inventory and has not been excluded by TSCA, a premanufacture notice must be submitted to EPA prior to manufacture or import. The notice must identify the chemical and provide available information on health and environmental effects. If available data is not sufficient to evaluate the chemical's effects, EPA can impose restrictions pending the development of information on its health and environmental effects.

Comprehensive Environmental Response, Compensation, and Liability Act (1980)

- Superfund
- Authorizes EPA to respond to releases of hazardous substances that may endanger public health, welfare, or the environment
- Provides for liability of persons responsible for releases of hazardous substances at closed and abandoned sites

- ***The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)***, commonly known as Superfund, authorizes EPA to respond to releases or threatened releases of hazardous substances that may endanger public health, welfare, or the environment. CERCLA establishes prohibitions and requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous substances at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified.
    - The trust fund is financed by a tax on the chemical and petroleum industries. However, authority for excise taxes on crude oil and chemicals, and the corporate environmental income tax expired on December 31, 1995, and Congress has not reauthorized the tax.
- The Superfund Amendments and Reauthorization Act (SARA) of 1986 revised various sections of CERCLA, extended the taxing authority for the Superfund, and created a free-standing law, SARA Title III, also known as the Emergency Planning and Community Right-to-Know Act (EPCRA).
- The CERCLA hazardous substance release reporting regulations direct the person in charge of a facility to report to the National Response Center any environmental release of a hazardous substance that equals or exceeds a reportable quantity. A release report may trigger a response by EPA or by one or more Federal or State emergency response authorities.
- EPA implements hazardous substance responses according to procedures outlined in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NCP includes provisions for permanent cleanups (remedial actions) and other cleanups such as removals. EPA generally takes remedial actions only at sites on the National Priorities List, which currently includes approximately 1,300 sites. Both EPA and States can act at sites; however, EPA provides responsible parties the opportunity to conduct removal and remedial actions and encourages community involvement throughout the Superfund response process.

Emergency Planning and Community Right-To-Know Act (1986)

- SARA title III
- Designed to improve community access to information about chemical hazards
- Facilitates the development of chemical emergency response plans by State and local governments

- ***The Emergency Planning and Community Right-To-Know Act (EPCRA)***, also known as Title III of Superfund Amendments and Reauthorization Act (SARA), was designed to improve community access to information about chemical hazards and to facilitate the development of chemical emergency response plans by State and local governments. EPCRA required each State to appoint a State Emergency Response Commission (SERC). SERCs were required to divide their States into Emergency Planning Districts and to name a Local Emergency Planning Committee (LEPC) for each district.
- EPCRA established four types of reporting obligations for facilities that store or manage specified chemicals:
  - Facilities are required to notify the SERC and LEPC of the presence of any extremely hazardous substance in excess of the substance's threshold planning quantity and directs the facility to appoint an emergency response coordinator.
  - Facilities are required to notify the SERC and the LEPC in the event of a release equaling or exceeding the reportable quantity of a CERCLA hazardous substance or an EPCRA extremely hazardous substance.
  - Facilities at which a hazardous chemical is present in an amount exceeding a specified threshold are required to submit material safety data sheets and hazardous chemical inventory forms to the SERC, LEPC, and local fire department.
  - Certain manufacturing facilities (defined in Section 313) that have ten or more employees and that manufacture, process, or use specified chemicals in amounts greater than threshold quantities are required to submit an annual toxic chemical release report. These data are compiled in the Toxic Release Inventory (TRI).

Oil Pollution Act (1990)

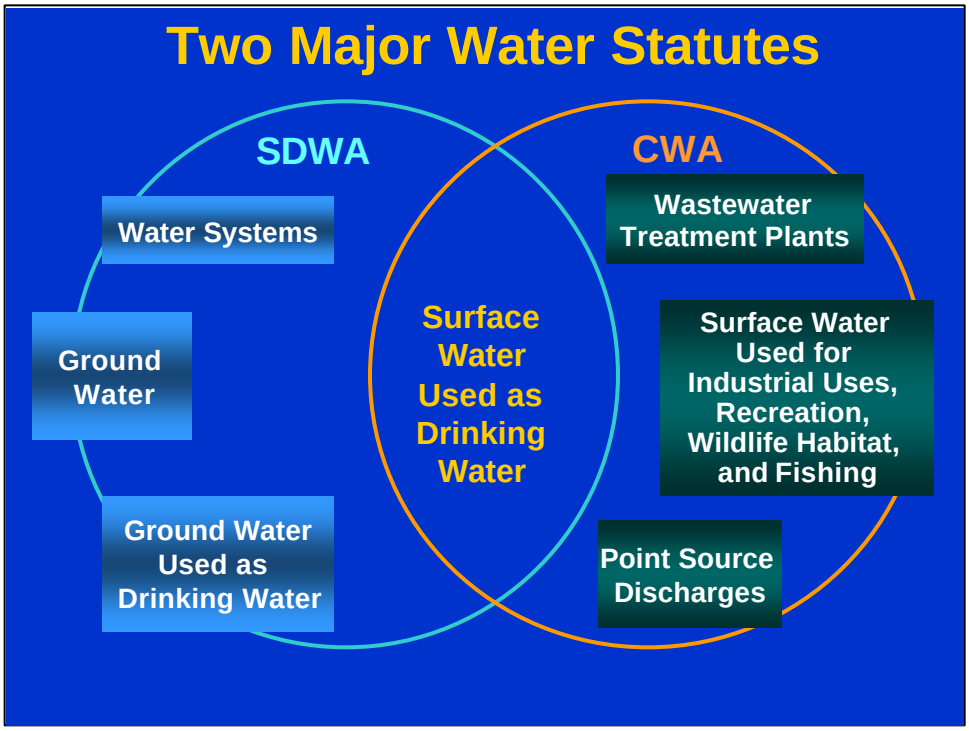
- Strengthens EPA's ability to prevent and respond to catastrophic oil spills
- Sets up a trust fund financed by tax on oil storage facilities
- Requires the development of Spill Prevention, Control and Countermeasure plans

- ***The Oil Pollution Act (OPA)*** of 1990 was largely in response to rising public concern following the ***Exxon Valdez*** incident. The OPA strengthened EPA's ability to prevent and respond to catastrophic oil spills. A trust fund financed by a tax on oil is available to clean up spills when the responsible party is incapable or unwilling to do so.
  - Authority for collecting the tax expired on December 31, 1994, and Congress has not reauthorized the tax.
- The Spill Prevention Control and Countermeasures (SPCC) regulations under the OPA require owners or operators of certain above ground oil storage facilities and vessels to prepare and comply with written, site-specific, spill prevention plans (see 40 CFR Part 112).
- EPA has published regulations for above ground storage facilities; the Coast Guard has done so for oil tankers. The OPA also requires the development of Area Contingency Plans to prepare and plan for oil spill response on a regional scale.

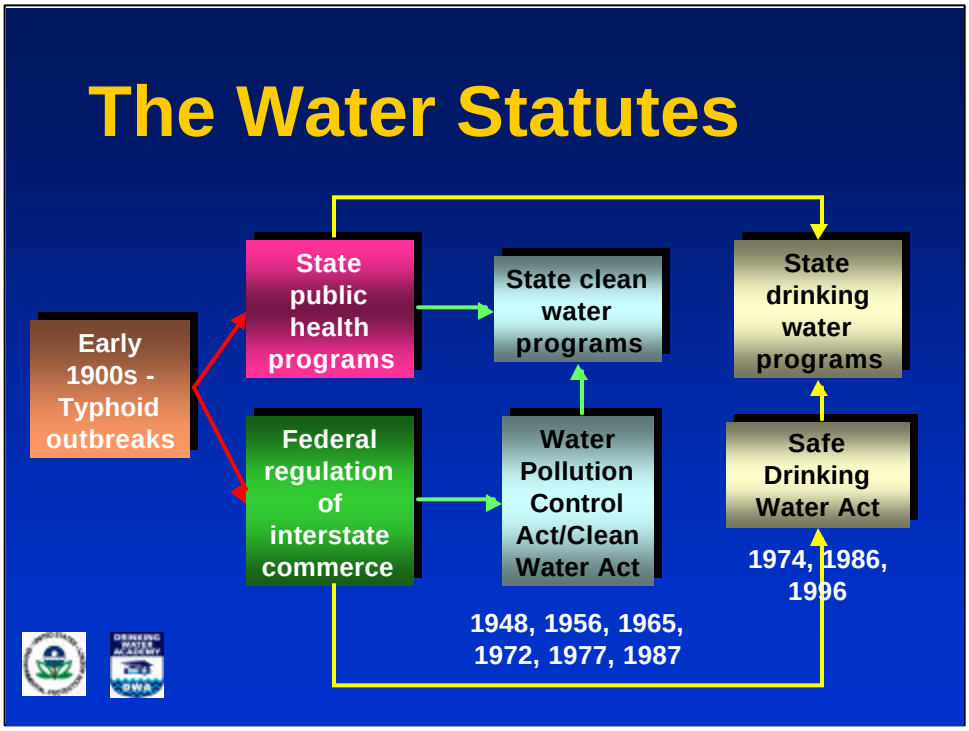
Pollution Prevention Act (1990)

- Focused industry, government, and public attention on reducing the amount of pollution through cost-effective changes in production, operation, and raw materials use

- ***The Pollution Prevention Act*** focused industry, government, and public attention on reducing the amount of pollution through cost-effective changes in production, operation, and raw materials use. Opportunities for source reduction are often not realized because of existing regulations, and the industrial resources required for compliance focus on treatment and disposal.
- Source reduction, which is reducing the amount of waste or pollution generated, is fundamentally different and more desirable than after-the-fact waste management or pollution control. Pollution prevention also includes other practices that increase efficiency in the use of energy, water, or other natural resources, and protect our resource base through conservation. Practices include recycling, source reduction, and sustainable agriculture.

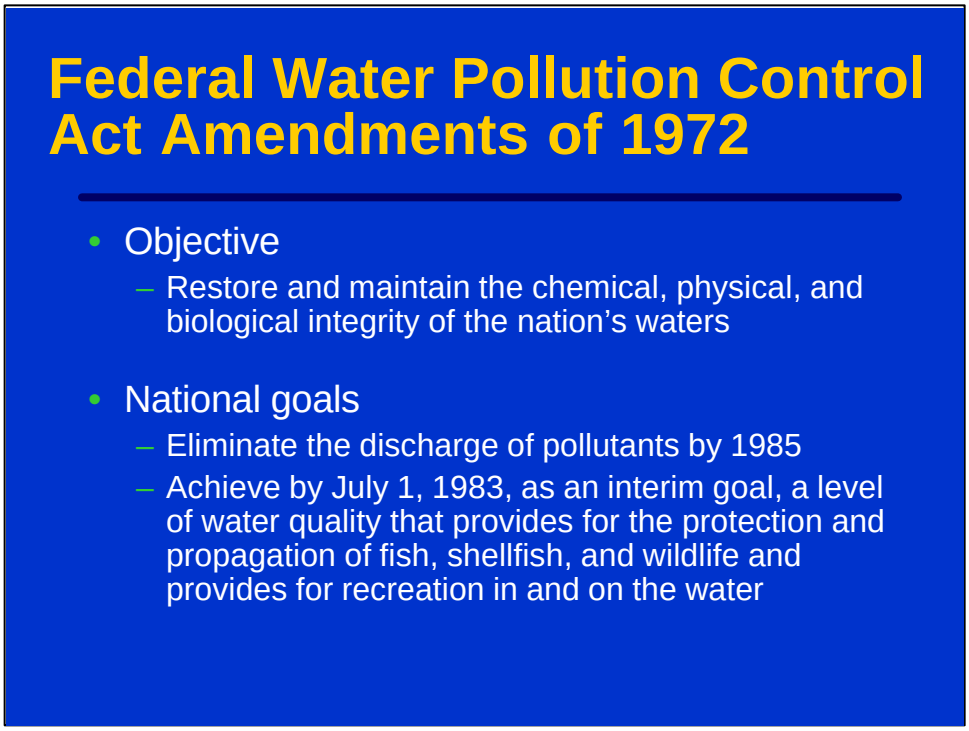


- The two major Federal statutes governing water are the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA).
- In general terms, SDWA addresses drinking water, discharges to ground water, and the water systems that deliver drinking water to the public.
- The CWA is the counterpart to SDWA. It regulates point source discharges to surface water, supports the creation and rehabilitation of wastewater treatment plants, and protects surface water.
- Some overlap obviously exists between these two statutes. However, as a basic rule, SDWA is concerned with public health associated with safe drinking water while the CWA has a broader goal of clean, fishable, and swimmable waters.
- We will discuss these two statutes in more detail in the next section.


The Water Statutes
Early 1900s - Typhoid outbreaks
State public health programs
Federal regulation of interstate commerce
State clean water programs
Water Pollution Control Act/Clean Water Act
State drinking water programs
Safe Drinking Water Act
1974, 1986, 1996
1948, 1956, 1965, 1972, 1977, 1987

The Clean Water Act

- The history of the Clean Water Act is best seen as an attempt to find a comprehensive and balanced approach to the protection of surface water.
- The Water Quality Act of 1965 introduced a **water quality-based approach** to water quality management. It required the development of State water quality standards, but enforcement was limited.
- The Federal Water Pollution Control Act Amendments of 1972, reacting to the failure of the 1965 Act to clean up surface waters, established a **technology-based approach**. There would be national effluent limitations on all point source dischargers.
- The 1987 Clean Water Act adopted a combination of water quality-based and technology-based approaches.



- Congress overrode a Presidential veto to enact the Federal Water Pollution Control Act Amendments of 1972, in order to enhance the quality and value of our water resources and to establish a national policy for the prevention, control and abatement of water pollution.
- The objective of the 1972 Amendments was to restore and maintain the chemical, physical, and biological integrity of the nation's waters. In order to achieve this objective, the Act set two goals. The first national goal was the elimination of the discharge of all pollutants into the navigable waters of the United States by 1985. The second national goal was to achieve an interim level of water quality by July 1, 1983, that provided for the protection of fish, shellfish, and wildlife and recreation.
- The 1972 statute set optimistic and ambitious goals:
  - Establish a national policy for water pollution control;
  - Set effluent limitation guidelines to be achieved by 1979;
  - Increase Federal assistance for municipal treatment plant construction;
  - Strengthen and streamline enforcement; and
  - Expand the Federal role while retaining State responsibility for day-to-day implementation of the law.

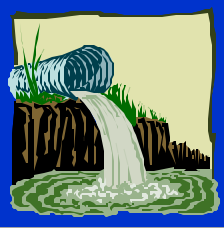
Technology- and Water Quality- Based Programs

Program Characteristics	Technology-Based	Water Quality- Based
Requirements	Technology-based controls for all types and classes of point source dischargers	Site-specific controls for point sources and nonpoint sources when technology-based controls fail to meet Water Quality Standards (WQS)
Assessment requirements	End of pipe analysis based on criteria	Ambient water quality for physical, chemical, and biological parameters
Types of controls usually employed	Permits based on effluent limits to implement national standards	Water Quality (site-specific) effluent limits; nonpoint source Best Management Practices (BMPs); ultimately habitat (physical) and biological controls
WQS	Predominantly, numeric criteria for chemicals	Numeric and narrative criteria for physical, chemical, and biological; antidegradation

- **Water Quality Act of 1965:** Introduced a **water quality-based approach** to water quality management. Specifically, it required the development of state water quality standards for interstate waters. Enforcement was limited: an action against a discharger had to be based on a showing that the discharge reduced the quality of the receiving waters below the standards, or that it endangered health and welfare.
- **Federal Water Pollution Control Act Amendments of 1972:** Comprehensive legislation protecting both interstate and intrastate waters, including lakes, rivers, streams, estuaries, and wetlands. This statute retained water quality standards and waste load allocations, but added national **technology-based** effluent limitations. It also added requirements for comprehensive planning and recognized nonpoint source issues. It included large-scale federal funding for state water quality management programs.
- **Clean Water Act of 1987:** Adopted a **combination of water quality-based and technology-based approaches**. This act added toxic and nonpoint source controls, improved storm water management, and tightened controls on point sources. It continued the federal-state relationship started with the 1972 Act.

Federal Water Pollution Control Act Amendments of 1972

- Set statutory deadlines for industrial dischargers
- Established permit program to enforce standards
- Required standards for toxic pollutants



- The 1972 amendments changed the thrust of the program from ***water quality standards***, regulating the amount of pollutants in a given body of water, to ***effluent limitations***, regulating the amount of pollutants being discharged from particular point sources. The Administrator was directed to publish regulations by October 18, 1973, establishing guidelines for effluent limitations. These regulations were to identify the "best practicable control technology currently available" (BPT) for various industrial categories. Industrial dischargers were required to meet these standards by July 1, 1977.
- The Administrator also had to set limits using the "best available technology economically available" (BAT). Industrial dischargers were required to meet these standards by July 1, 1983.
- The BPT and BAT standards were to be applied through the newly-established ***National Pollutant Discharge Elimination System (NPDES) Permit Program***. The 1972 Amendments made it illegal for industrial and municipal facilities to discharge pollutants into waters of the United States without a permit. The NPDES program authorizes EPA to regulate and oversee the permitting process. NPDES permits contain site-specific effluent limits, monitoring and reporting requirements, and other site-specific conditions that EPA or the State deems necessary to control the discharge. NPDES permits must be renewed every five years.

Federal Water Pollution Control Act Amendments of 1972

- Provided construction grants for POTWs
- Established pretreatment program for industrial discharges to POTWs
- Strengthened enforcement authority and provided for citizen suits

- The major thrust of the Federal grant effort was directed toward municipalities for the construction of publicly-owned treatment works (POTWs). More than 1,300 local communities had sewer systems that discharged untreated waste directly into water bodies. An equal number of communities provided merely primary treatment, which removes only 30 percent of some pollutants.
    - Probably the greatest health concern from untreated sewage are pathogens such as *Cryptosporidium*, *Giardia lamblia*, the more virulent strains of *E. coli*, and *Salmonella*. They can cause serious gastrointestinal illness lasting 2 to 10 days in healthy individuals, but can be fatal in people with weakened immune systems. Sewage also contains many pollutants that affect humans and water quality, including oxygen-demanding substances that can lead to fish kills and degraded water quality; solids that can increase turbidity and decrease the aesthetic value (e.g., taste and odor) of water; and nutrients that can cause algal blooms or methemoglobanemia, Blue Baby Syndrome, in infants.
- The Administrator was authorized to make grants of $18 billion to the States according to their need for construction of new treatment works during the fiscal years 1973-1975. The Federal share for these projects was 75 percent, with the remainder to be divided between State and local governments and industrial users. Municipalities were further eligible for grants for demonstration projects that utilized new methods for treating sewage, joint systems for municipal and industrial waste, and new water purification techniques. The Act required POTWs to achieve secondary treatment by July 1, 1977, and "best practicable wastewater treatment" by July 1, 1983.
- In addition, the Act established the pretreatment program for industrial discharges to POTWs. This program was intended to ensure that discharges would not interfere with the operation of POTWs or pass through them to pollute receiving waters.
- The statute also streamlined enforcement procedures and increased penalties, strengthening EPA's enforcement authority.
- The Act specifically provides for citizen suits in the enforcement of Federal standards. Aggrieved private citizens may seek judicial relief against any polluter for violations of an effluent standard or limitation, or administrative order issued under the Act.

1977 Clean Water Act

- Kept 1972 goals intact
- Clarified intent to delegate programs to the States and Tribes

- For the construction grants program:
  - Stabilized funding
  - Provided extensions and waivers for secondary treatment

- The 1977 Amendments, known formally for the first time as the Clean Water Act (CWA), left in place the basic goals and structure established in 1972. The Act maintained the 1985 zero-discharge and the fishable, swimmable goals. Changes focused on the following areas.
  - Congress clarified its intent that EPA delegate authority to the States to manage the construction grants program, the NPDES permit program, and the dredge and fill program. (Delegation, or authorization, is discussed later in this course.)
  - Congress stabilized funding for the construction grants program, added "set-aside" provisions, and redefined (narrowed) the range of eligible projects. It also addressed the 1977 secondary treatment deadline by allowing case-by-case extensions and a waiver of the requirements for coastal communities—the first departure from the concept of minimum national standards based on technology.

1977 Clean Water Act

- Established removal credits for pretreatment
- Extended BPT deadlines
- Expanded BAT limits to include toxic pollutants
- Established the wetlands program

- Congress amended the pretreatment program to allow industrial users of municipal systems to reflect the pollutant removals achieved by the POTWs to which they discharged ("removal credits").
- Congress extended deadlines for meeting BPT standards, but made no other changes in this area.
- The concept of BAT controls was clarified and expanded to include toxic pollutants. Congress created three classes of pollutants (conventional, nonconventional, and toxic) and established schedules for EPA to set standards and for industry to meet them.
  - Conventional pollutants include biochemical oxygen demand (BOD), total suspended solids (TSS), pH, fecal coliforms, and oil and grease.
  - Toxic or "priority" pollutants are those defined in 40 CFR 401.15 and include metals and manmade organic compounds.
  - Nonconventional pollutants are substances not defined as either conventional or toxic, and include constituents such as ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity.
- The Act required EPA to develop a program to control pollution of the nation's 76 million acres of wetlands. The Agency is required to monitor the protection of these water areas in coordination with other Federal agencies and the States through a permit program.

1987 Water Quality Act

- State revolving fund
- Toxics controls
- Sewage sludge (biosolids) management
- Storm water permits
- Antidegradation policy

- The Water Quality Act of 1987 was passed after having been vetoed twice by President Reagan. Congress overrode the second veto. The Act addressed a number of issues on which Congress deemed progress to be unsatisfactory. These included toxics, nonpoint sources, storm water, coastal pollution, and the use and disposal of domestic sewage sludge (biosolids). In addition, the amendments phased out the construction grants program in favor of a State revolving fund (SRF).
- The Act extended the construction grants program through FY 1990. The revolving loan program continued through FY 1994, when Federal assistance for wastewater treatment would end. States were allowed to use their construction grant allotments to capitalize revolving loan funds. (A State fund revolves as the money loaned out is returned with interest over time.) A State can use portions of its SRF for purposes specified in the statute other than wastewater treatment construction; this includes Statewide nonpoint source management plans and estuary conservation and management plans.
- Congress responded to the lack of numeric criteria for toxic pollutants within State standards by mandating State adoption of such criteria. The Act required States to identify water not meeting designated uses because of toxic pollutants even after the application of technology-based controls (“hot spots”); adopt numerical criteria for the pollutants in these waters; and establish effluent limitations for individual discharges to these water bodies.
- In addition, EPA was required to establish concentration limits for toxics in sewage sludge, and develop regulations for sewage sludge use and disposal, and State permit programs.
- The Act also explicitly recognized the Agency’s antidegradation policy for the first time. The intent of this policy is to preserve the level of water quality necessary to protect existing uses and to provide a means for assessing activities that may lower water quality.
- New provisions required EPA to issue permits for storm water from separate storm sewers. In contrast to the technology-driven requirements of the Act, municipalities are held to a treatment requirement of reducing the discharge to the maximum extent practicable.

1987 Water Quality Act

- Extended deadlines for BAT and BCT compliance
- Nonpoint source programs
- National estuary program
- Enhanced enforcement authority
- Treatment as a State for Tribes

- The 1987 Act gave industrial dischargers additional time to meet BAT and best conventional control technology (BCT) effluent limitations. It also gave EPA authority to set alternative BAT and pretreatment standards for an existing facility based on the existence of "fundamentally different factors;" provided that an existing permit may not be modified to require less stringent effluent limitations than those already written; and subjected industrial owners of separate storm sewers to the permit program.
- The Act also provided authority for State nonpoint source programs. It required each State to identify nonpoint sources of pollution that contribute to water quality problems and waters unlikely to meet the water quality standards without nonpoint source controls. States also adopt management programs to control nonpoint source pollution and then implement the management programs.
- The Act created a national estuary program that promotes comprehensive planning efforts to help protect nationally significant estuaries deemed to be threatened by pollution, development or overuse. (An estuary is a partially enclosed body of water formed where fresh water from rivers and streams flows into the ocean, mixing with the salty sea water.)
- The Act also strengthened EPA's enforcement authority by changing the administrative penalty structure and providing more stringent civil and criminal judicial penalties.
- The 1987 statute extended participation in CWA programs to certain Indian Tribes. The Act directed EPA to establish procedures by which a Tribe could qualify for "treatment as a State," at its option, for purposes of administering CWA programs and receiving grant funds.

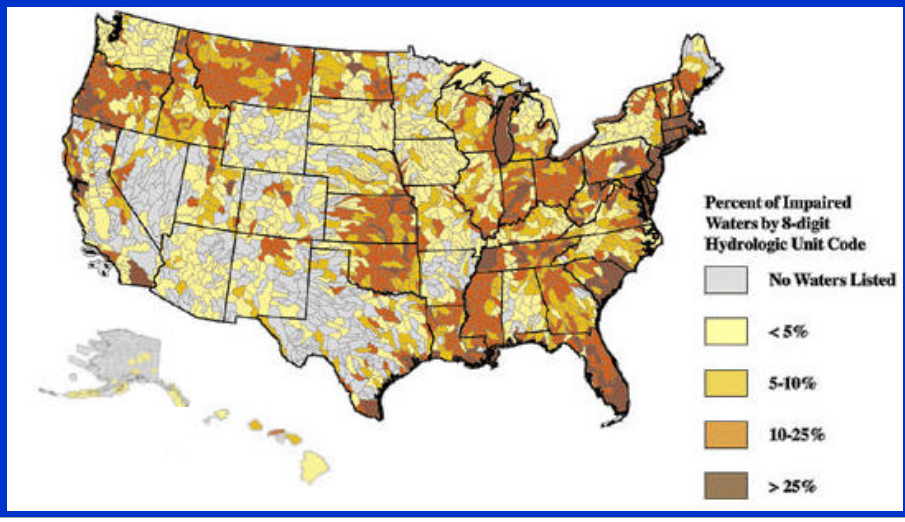
- The next several slides will discuss the major programs under the CWA:
  - Water quality standards;
  - National pollutant discharge elimination system;
  - Watershed programs;
  - Nonpoint sources; and
  - Wetlands.

Water Quality Standards

- Define the water quality goals of a water body
  - Numeric and narrative criteria
  - Designated uses
  - Use attainability analysis

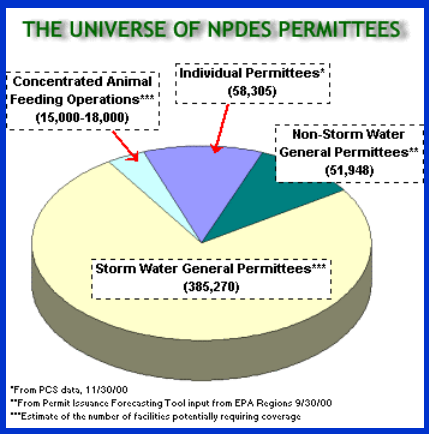
- A ***water quality standard*** defines the water quality goals of a water body by designating the use or uses to be made of the water, by setting criteria necessary to protect the uses, and by preventing degradation of water quality standards to protect public health or welfare, enhance the quality of water, and serve the purposes of the Clean Water Act. Water quality standards:
  - Include provisions for restoring and maintaining the chemical, physical, and biological integrity of State waters;
  - Wherever attainable, achieve a level of water quality that provides for the protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water; and
  - Consider the use and value of State waters for public water supplies, propagation of fish and wildlife, recreation, agriculture and industrial purposes, and navigation.
- States are encouraged to adopt both ***numeric*** and ***narrative criteria***. Numeric criteria are important where the cause of toxicity is known for protection against pollutants with potential human health impacts or potential for bioaccumulation. Narrative toxic criteria, based on whole effluent toxicity (WET) testing, can be the basis for limiting toxicity in waste discharges where a specific pollutant can be identified as causing or contributing to the toxicity but there are no numeric criteria in the State standards or where toxicity cannot be traced to a particular pollutant.
- States identify the ***designated use*** of each water segment (e.g., fishable/swimmable, support cold water fish, industrial, and commercial) and perform ***use attainability analyses*** on these segments to assess the physical, chemical, biological, and economic factors that affect attainment of use.

Identified Impaired Waters



- Water quality standards must also contain an ***antidegradation*** policy. This policy ensures that designated uses, once achieved, must be properly maintained, and sets minimum requirements for State policies to conserve, maintain, and protect existing uses and water quality. The policy consists of three tiers:
  - Tier 1 requires that existing uses of a water segment and the level of quality necessary to protect the use be maintained.
  - Tier 2 requires protection of actual water quality (unless certain conditions are met) in segments where water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.
  - Tier 3 requires special protection of high quality waters for which typical use classifications may not be sufficient to protect outstanding national resource waters (e.g., high quality or ecologically unique waters such as those with national and State parks and wildlife refuges).
- Section 303(d) of the Clean Water Act requires authorized States, territories and Tribes to identify impaired waters and develop ***total maximum daily loads (TMDLs)*** that set the maximum amount of pollution a water body can receive without violating water quality standards. If a State fails to do so, EPA is required to develop a priority list for the State and make its own TMDL determinations. Most States have lacked the resources to do TMDL analyses. These analyses involve complex assessments of point and nonpoint sources and mathematical modeling. These calculations must also account for seasonal variation and include a margin of safety. EPA has been reluctant to override States and has also lacked resources to do the analyses as well. Thus, there has been little implementation of the TMDL requirement.
- In recent years, national and local environmental groups have filed more than 40 lawsuits in 38 States against EPA and States for failure to implement TMDLs. Of the 40 lawsuits, 19 have resulted in court orders requiring expeditious development of TMDLs.

National Pollutant Discharge Elimination System



- The ***National Pollutant Discharge Elimination System (NPDES)*** permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches.
- Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. NPDES regulations exclude irrigated agriculture and agricultural storm water runoff from requiring permits. However, discharges from concentrated animal feeding operations, concentrated aquatic animal production facilities, and silviculture (the cultivation of forest trees), as well as discharges to aquaculture projects are not excluded from permitting requirements.
- The NPDES storm water program requires operators of both large and small construction sites to obtain authorization to discharge storm water under a NPDES construction storm water permit. In 1990, the Phase I Storm Water regulations addressed construction activities that disturbed five or more acres of land as Category (x) of the definition of "storm water discharges associated with industrial activity" (40 CFR 122.26(b)(14)(x)). The NPDES storm water program also addresses small construction activities – those that disturb between one and five acres of land – with the signing of the Phase II Final Rule.
- In most cases, the NPDES permit program is administered by **authorized States**, States that have EPA-approved programs. Currently, 44 States and one territory have been authorized by EPA to administer the NPDES program. EPA remains the permitting authority in the remaining six States, all U.S. territories (except the U.S. Virgin Islands), and all Indian lands. EPA also retains permitting jurisdiction over certain types of facilities in some authorized States (e.g., oil and gas production facilities in Texas, Federal facilities in Florida).

- A NPDES permit will generally specify an acceptable level of a pollutant or pollutant parameter in a discharge (for example, a certain level of bacteria). The permittee may choose which technologies to use to achieve that level. Some permits, however, do contain certain generic "best management practices" (such as installing a screen over the pipe to keep debris out of the waterway). NPDES permits make sure that a State's mandatory standards for clean water and Federal requirements are being met.
- Permits require facilities to sample their discharges and notify EPA and their State regulatory agency of these results. Facilities are also required to notify EPA and their State regulatory agency when they determine their discharges are not in compliance with the requirements of their permits.
- The owner or operator of a municipal or industrial facility normally takes the first step in the permit process by filing a permit application form. The permit writer reviews this form and drafts the permit or notice to deny the permit, which is then sent to the applicant and published to notify the general public. The permit writer reviews the comments, responds to them, and drafts the final permit decision to be issued by the permitting authority. (The permitting process is discussed in more detail in section VI-C.)
- CWA limits the length of NPDES permits to five years. NPDES permits can be renewed (reissued) at any time after the permit holder applies. In addition, under limited circumstances, NPDES permits can be administratively extended if the facility reapplies more than 180 days before the permit expires, and EPA or the State regulatory agency, whichever issued the original permit, agrees to extend the permit.
- Federal laws provide EPA and authorized State regulatory agencies with various methods of taking enforcement actions against violators of permit requirements. For example, EPA and State regulatory agencies may issue administrative orders which require facilities to correct violations and that assess monetary penalties. EPA and State agencies can also pursue civil and criminal actions that may include mandatory injunctions or penalties, as well as jail sentences for persons found willfully violating requirements and endangering the health and welfare of the public or environment.

Watershed Protection

- Strategy for effectively protecting and restoring aquatic ecosystems
  - Geographic focus
  - Continuous improvement
  - Partnerships and stakeholder involvement

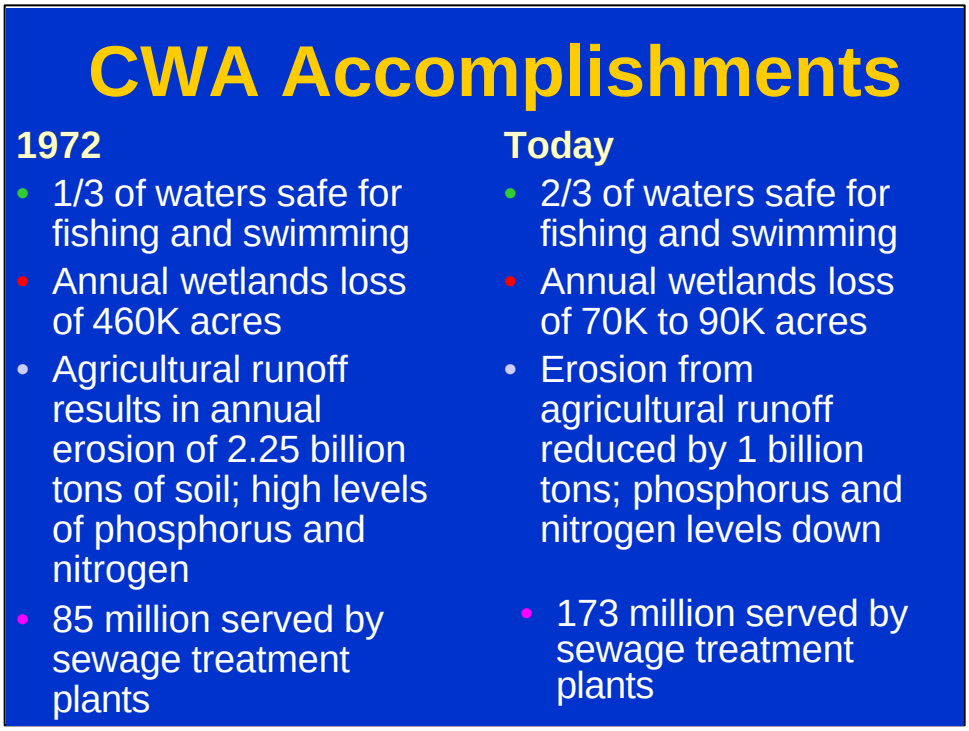
- ***Watershed protection*** is a strategy for effectively protecting and restoring aquatic ecosystems and protecting human health. (A watershed is the area that drains to a common waterway, such as a stream, lake, estuary, wetland, or even the ocean.) This strategy is based on the premise that many water quality and ecosystem problems are best solved at the watershed level rather than at the individual water body.
- There are three key components to watershed protection:
  - ***Geographic Focus.*** Watersheds are nature's boundaries. They generally include lakes, rivers, estuaries, wetlands, streams, and the surrounding landscape. Ground water recharge areas are also considered.
  - ***Continuous Improvement Based on Sound Science.*** Sound scientific data, tools, and techniques are critical to inform the process. Actions taken include characterizing priority watershed problems and solutions, developing action plans and evaluating their effectiveness within the watershed.
  - ***Partnerships and Stakeholder Involvement.*** Watersheds transcend political, social, and economic boundaries. Therefore, it is important to involve all the affected interests in designing and implementing goals for the watershed. Watershed teams may include representatives from all levels of government, public interest groups, industry, academic institutions, private landowners, concerned citizens and others.
- Early attempts at watershed protection were often not successful because the focus was too narrow, and because of the lack of tools, technology, and understanding and acceptance of the watershed approach.

Nonpoint Sources

- Agriculture
- Forestry
- Marinas (boating)
- Roads, highways and bridges
- Urban runoff
- Habitat alteration
- Air deposition

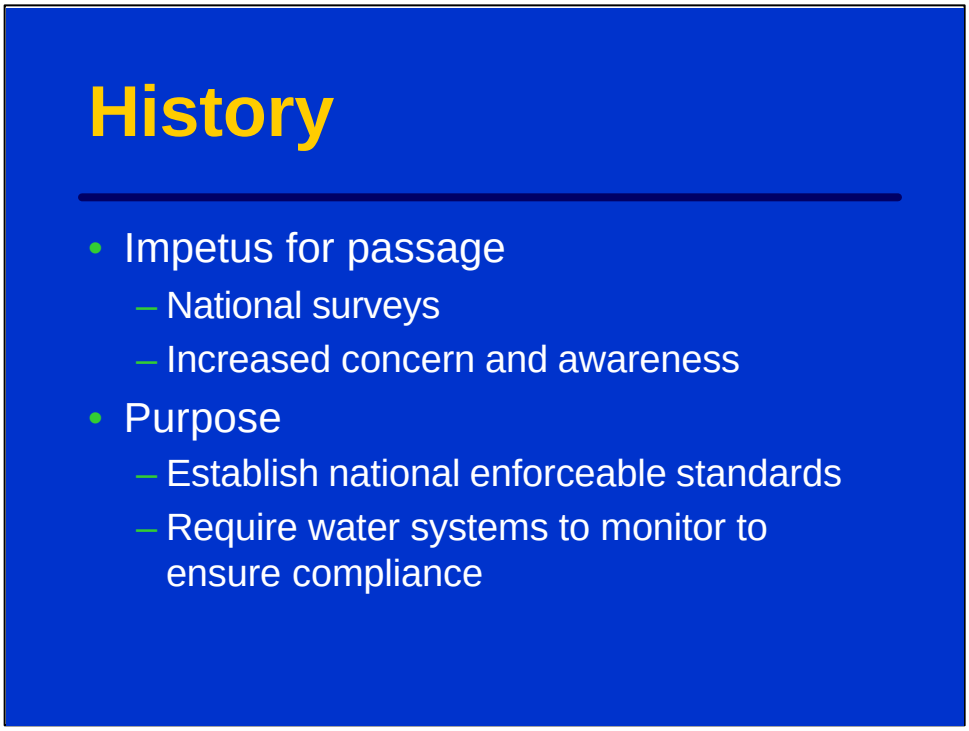
- ***Nonpoint source pollution (NPS)***, unlike pollution from industrial and sewage treatment plants, comes from many sources. NPS is caused by rainfall and snowmelt flowing over and through the ground. Runoff picks up and carries natural and manmade pollutants and deposits these pollutants into lakes, rivers, wetlands, coastal waters, and ground water. Agriculture, forestry, grazing, septic systems, recreational boating, urban runoff, construction, physical changes to stream channels, habitat degradation, and air deposition are potential sources of NPS pollution.
- States report that nonpoint source pollution is the leading remaining cause of water quality problems. The effects of nonpoint source pollutants on specific waters vary and may not always be fully assessed. However, these pollutants do have harmful effects on drinking water supplies, recreation, fisheries, and wildlife.
- The nonpoint source management program, established by Congress in 1987, provides States, territories, and Tribes with grants to implement NPS pollution controls. These grants provided funding for outreach and technical assistance as well as for efforts to control runoff from urban sources, septic systems, and construction and projects to manage NPS pollution from forestry, habitat degradation, and changes to stream channels.
- In order to receive Federal funding, States, territories, and Tribes must develop a NPS pollution ***assessment report*** and ***management program***. The assessment report identifies waters affected or threatened by NPS pollution and describes the categories of NPS pollution, such as agriculture, urban runoff, or forestry, that are causing water quality impairment. The management program becomes the framework for controlling NPS pollution, given the existing and potential water quality problems described in the NPS pollution assessment report. A well-developed management program supports activities with the greatest potential to produce early, demonstrable water quality results; assists in building long-term institutional capacity to address NPS pollution problems; and encourages strong interagency coordination and ample opportunity for public involvement in the decision-making process. Once EPA approves the assessment report and the management program, States, territories, and Tribes become eligible to receive funding. In 1990, EPA began awarding grants to States, territories, and Tribes with approved programs. By 1991, all 50 States and the territories had received EPA approval; and by 1995, seven Tribes also had received approval.

- The Clean Water Act defines ***wetlands*** 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.
- Many wetlands are ***seasonal*** (they are dry one or more seasons every year) and, particularly in the arid and semiarid West, may be wet only periodically. The quantity of water present and the timing of its presence in part determine the functions of a wetland and its role in the environment. Even wetlands that appear dry at times for significant parts of the year – such as vernal pools – often provide critical habitat for wildlife adapted to breeding exclusively in these areas.
- Wetlands have important filtering capabilities for intercepting surface water runoff before the runoff reaches open water. As the runoff water passes through, the wetlands retain excess nutrients and some pollutants, and reduce sediment that would clog waterways and affect fish and amphibian egg development. In addition to improving water quality through filtering, some wetlands maintain stream flow during dry periods, and many replenish ground water.
- Section 404 of the Clean Water Act provides protection for wetlands through **economic incentives and disincentives** (e.g., tax deductions for selling or donating wetlands to a qualified organization and the "Swampbuster" provisions of the Food Security Act), cooperative programs, and **acquisition** programs (e.g., establishing national wildlife refuges).
- Section 404 is jointly administered by the U.S. Army Corps of Engineers and EPA. Section 404 establishes a permit program to regulate the discharge of dredged or fill material into waters of the United States, including most wetlands. The U.S. Fish and Wildlife Service (Dept. of the Interior) and the National Marine Fisheries Service (Dept. of Commerce) have important advisory roles in the permit review process under the Clean Water Act, and the Natural Resources Conservation Service (Dept. of Agriculture) has the lead responsibility for identifying wetlands on agricultural lands.
- On January 9, 2001, in ***Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers***, the Supreme Court narrowed U.S. Army Corps of Engineers' jurisdiction over waters of the United States. The Supreme Court held that the Corps' regulation which describes certain "waters of the United States", such as intrastate lakes, rivers, streams, and wetlands, "the use, degradation or destruction of which could affect interstate or foreign commerce" as applied to the petitioner's sand and gravel pit pursuant to the "Migratory Bird Rule", exceeds the statutory authority granted to the Corps under Section 404(a) of the Clean Water Act.

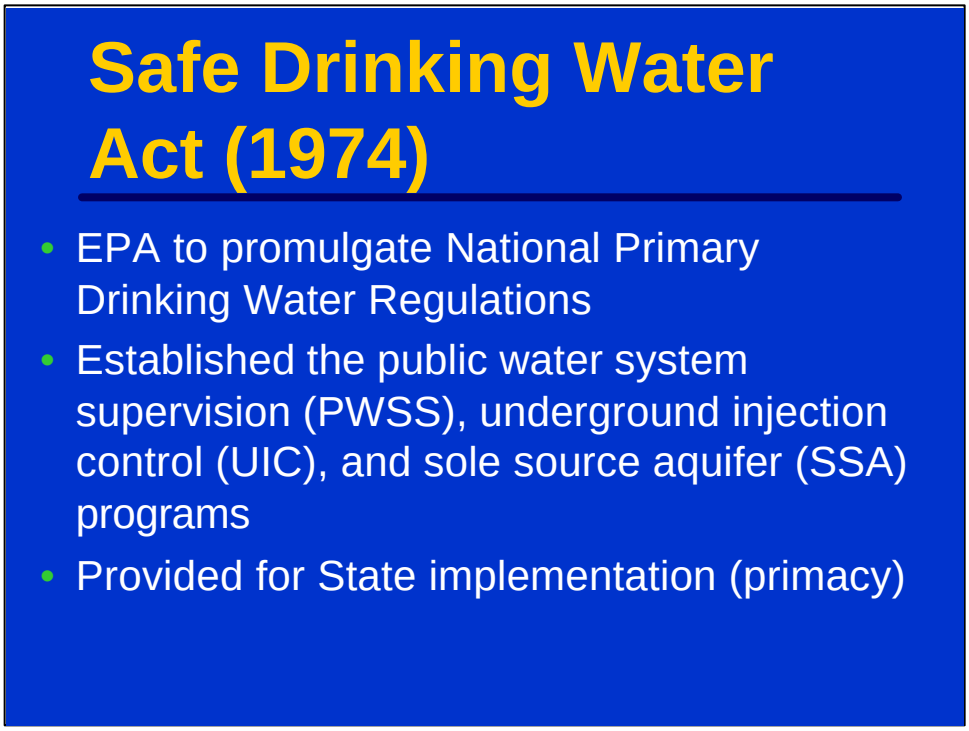


- In 1972, Congress enacted the first comprehensive national clean water legislation in response to growing public concern for serious and widespread water pollution.
- Lake Erie was dying. The Potomac River was clogged with blue-green algae blooms that were a nuisance and a threat to public health. Many of the nation's rivers were little more than open sewers and sewage frequently washed up on shore. Fish kills were a common sight. Wetlands were disappearing at a rapid rate.
- Today, the quality of our waters has improved dramatically as a result of a cooperative effort by Federal, State, Tribal and local governments to implement the pollution control programs established in 1972 by the Clean Water Act.

The Safe Drinking Water Act



- In the late 1960s and early 1970s, several surveys of drinking water quality were conducted. A 1969 study by the Public Health Service showed that only 60 percent of water systems surveyed delivered water that met all the PHS standards. Over half of the treatment facilities surveyed had major deficiencies involving disinfection, clarification, or pressure in the distribution system. Small systems had the most deficiencies. A 1972 study detected 36 chemicals in treated water taken from treatment plants that drew water from the Mississippi River in Louisiana. Cancer was found to be present at higher rates in the population using the public water supply in New Orleans than in the population using private wells.
- These surveys raised concerns and prompted EPA to conduct a national survey to detail the quality of drinking water. The survey showed that drinking water was widely contaminated on a national scale, particularly with synthetic organic chemicals. Contamination was especially alarming in large cities. This survey raised concerns about drinking water in the public health community and in the general public. ***Increased concern and awareness of contamination of drinking water supplies prompted Congress to enact the Safe Drinking Water Act (SDWA) in 1974***. The ***purpose of SDWA*** is to establish national enforceable standards for drinking water quality and to guarantee that water suppliers monitor water to ensure that it meets national standards.
- EPA conducted the first inventory of community water systems in 1976. The inventory revealed the previous estimate of 20,000 community water systems in the U.S. was low. The survey revealed that the vast majority of systems are small and privately owned, but most people are customers of large publicly owned systems.



- Congress enacted the Safe Drinking Water Act in 1974. The 1974 SDWA restructured drinking water programs in two significant ways. First, it set up a higher level of responsibility for regulating public drinking water systems than established State programs: a newly formed Federal program, called the ***Public Water System Supervision Program (PWSS)***. Second, it expanded the focus from water system planning and prevention of contamination, to include developing standards, monitoring for contaminants, and taking enforcement action. Federal law required the development of Federal regulations. However, the law realized that protection of drinking water was still primarily a State responsibility. SDWA included a major focus on delegating primary responsibility for program implementation (i.e., primacy).
- ***National Interim Drinking Water Regulations*** established either the maximum concentration of pollutants allowed in or the minimum treatment required for water that is delivered to customers. (These were renamed National Primary Drinking Water Standards in the 1986 SDWA amendments.)

Safe Drinking Water Act (1974)

- Gave EPA authority to set drinking water standards
  - Recommended Maximum Contaminant Level (RMCL)
  - Maximum Contaminant Level (MCL)
  - Treatment technique

- A ***Recommended Maximum Contaminant Level*** (RMCL) is the maximum level of a contaminant in drinking water at which no known or anticipated adverse health effects would occur. The 1986 amendments renamed these Maximum Contaminant Level Goals (MCLGs). **MCLGs are not enforceable**.
- A ***Maximum Contaminant Level*** (MCL) is enforceable. It is the maximum permissible level of a contaminant in water that can be delivered to any user of a public water system. An MCL is set as close to an MCLG as possible, taking into account the costs and benefits and feasible technologies.
- For some contaminants, there is not a reliable method that is economically and technologically feasible to measure the contaminant, particularly at low concentrations. In these cases, EPA establishes a ***treatment technique***. A treatment technique is an enforceable procedure or level of technological performance that public water systems must follow to ensure control of a contaminant.
- The 1974 SDWA called for EPA to regulate drinking water in two steps. The first step involved creating national interim primary drinking water regulations based largely on 28 1962 Public Health Service standards. These interim MCLs were enforceable until revised.
- The second step was to revise these standards, as necessary, following a comprehensive review by the National Academy of Sciences of the health risks posed to consumers.
- The first 18 interim standards were set in 1975 for six synthetic organic chemicals, ten inorganic chemicals, turbidity, and total coliform bacteria. (Levels were set for coliform and turbidity because, while not themselves health concerns, high levels of both may indicate the presence of pathogens.)
- Interim standards for radionuclides were promulgated in 1976 and an interim standard for total trihalomethanes (TTHMs) was set in 1979.

Status of Drinking Water Control Prior to 1986 Amendments

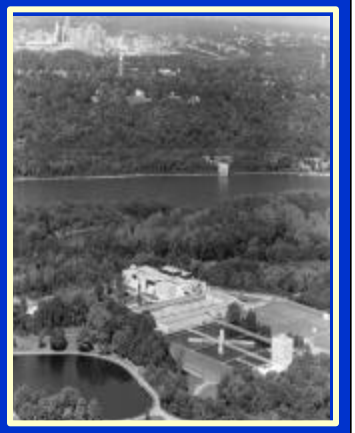
- Variable State regulations
- Priority to sanitary surveys and on-site efforts
- Monitoring organics not required for most systems
- Operator certification and training were critical for success
- Occasional outbreaks of giardiasis
- Rudimentary information management

- From 1974 to 1986 when SDWA was amended, ***State regulations varied*** in many respects. For example, States differed in requirements for ground water disinfection, mandated filtration, monitoring of organic chemicals, and operator certification requirements.
- During this period, the ***States' priorities were sanitary surveys and on-site efforts.*** Monitoring requirements were relatively simple. State and Federal knowledge of potential organic contaminants was growing, but monitoring of most public water systems for organic chemical contaminants was not required.
- ***Operator certification and training*** were also essential components of State programs during this period. Although certification classifications and requirements were diverse, the need for ongoing training and certification was well known. Training operators on improved treatment practices was needed but not mandated.
- Outbreaks of giardiasis were occurring because filtration standards did not protect against *Giardia*, especially if raw water quality was high (i.e., water that was otherwise of high quality was generally not filtered in a manner that would protect against *Giardia*).
- It is also important to note that State primacy programs were just beginning to utilize personal computers for data management (coliforms, inorganic chemicals, and organic chemicals for surface water systems). Data management was relatively simple due to the limited amount of contaminant monitoring required and the existence of only two classifications of water systems—community water systems and non-community water systems.

- Congress was concerned about EPA's lack of progress in developing drinking water regulations. Congress was also concerned about the lack of regulation for microbial contamination, synthetic organic chemicals, and other industrial wastes. In reaction, and consistent with other statutes enacted in the post-Gorsuch years, Congress included deadlines for standard-setting in the 1986 amendments to the Act.
- The 1986 amendments were prescriptive and required EPA to regulate 83 contaminants within three years after enactment. The Amendments declared the interim standards promulgated in 1975 to be final and required EPA to require disinfection of all public water supplies and filtration for surface water systems. Further, EPA was required to regulate an additional 25 contaminants (to be specified by EPA) every three years and to designate the best available treatment technology for each contaminant regulated. States with primacy were required to adopt regulations and begin enforcing them within 18 months of EPA's promulgation.
- The large number of regulations added considerable regulatory responsibility to State drinking water programs, many of which were underfunded and understaffed. Thus, these amendments had a significant impact on drinking water programs. The amendments also initiated the ground water protection program, including the ***Wellhead Protection Program***. Wellhead protection programs offer a cost-effective means of protecting ground water supplies. EPA studies have demonstrated that prevention is far more cost effective than remediation; contamination can cost communities up to 200 times as much as prevention through wellhead protection. Protecting ground water from contamination provides cleaner source water for ground water systems thereby promoting more cost-effective compliance with SDWA. In addition, the ***Sole Source Aquifer Demonstration Program*** was added to the existing sole source aquifer provision. This program provides funding to identify and provide the special protections needed for sole source aquifers.

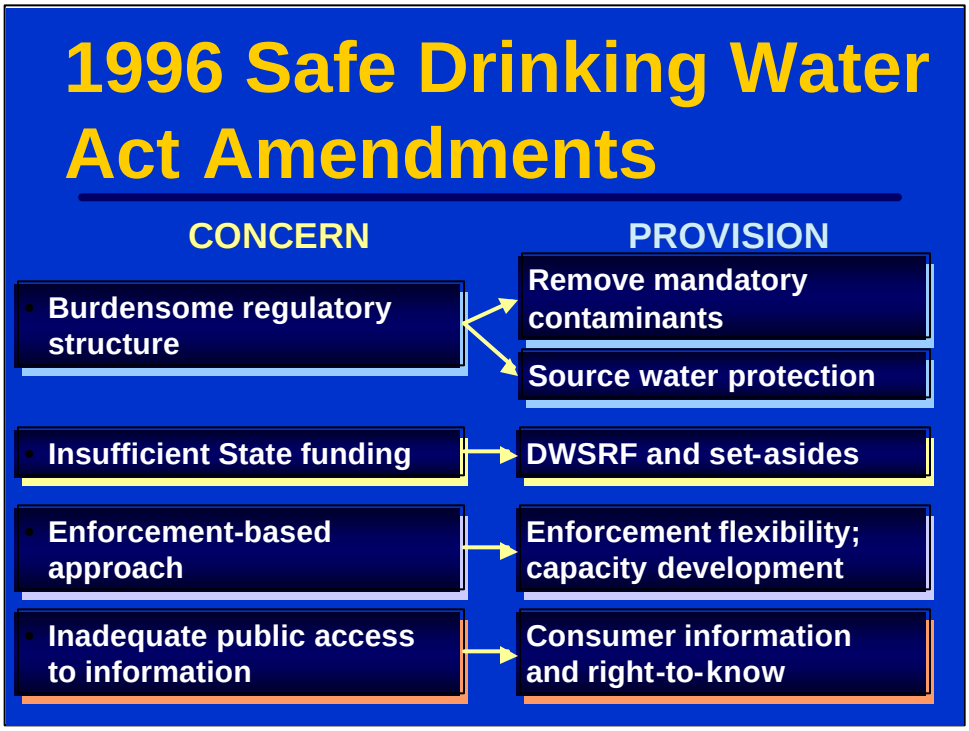
1986 Safe Drinking Water Act Amendments

- Creation of the NTNC category of water system
- Organic chemicals
  - Monitoring and detection
  - Risk communication
- Surface water treatment rule
  - Higher filtered water standards
  - Filtration avoidance
- CT calculations



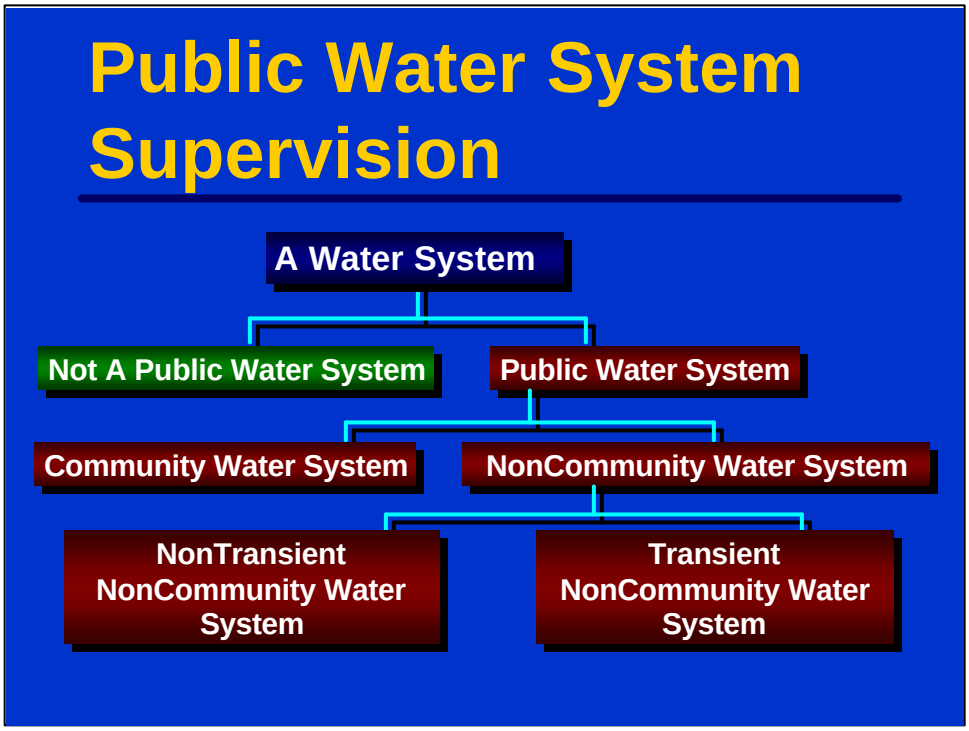
- The 1986 Amendments created a new category of water system—***non-transient, non-community water system*** or NTNCWS. The Amendments required that this new category of water system be regulated nearly as stringently as community water systems. In practical terms, this significantly increased the number of systems that States were required to regulate.
- Increased monitoring requirements and monitoring for organic chemicals at a greater number of water systems led to increased detection of chemicals. Increased detection led to the identification of potential problems from the widespread presence of organic chemicals. Before increased monitoring and detection, these problems were unknown. In addition, increased monitoring detected previously unidentified microbial problems.
- The increased detection of previously unknown water system contaminant problems created a need for water system operators and States to develop ***risk communication*** skills to inform the public of impacts of contaminants on their health. Increased knowledge of *Giardia* improved methods for detecting the pathogen, and continuing outbreaks of the disease prompted tightened requirements for ***surface water treatment***. This included both lowered turbidity standards, disinfectant contact time (CT) calculations and strict criteria to avoid filtration. Because it is not feasible to accurately measure the level of pathogens in drinking water, EPA requires surface water systems to use certain treatment techniques to minimize the risk from microbial contaminants. The adequacy of the filtration process is determined by measuring the turbidity of the treated water; higher turbidity levels are often an indicator that the filtration process is not working as it should.

- Along with increased treatment requirements for surface water systems, some ground water supplies were recognized as providing water of essentially surface water quality. These sources are recharged by surface water to the extent that pathogens, such as *Giardia* cysts, can contaminate the source water. These sources are known as ***Ground Water Under the Direct Influence*** (of surface water) or GWUDI. Identification of GWUDI sources and regulation as surface water systems was required.
- Public notification requirements increased the communication between water systems and consumers, further increasing awareness of contamination of drinking water. Public notification requirements were strictly prescribed and included broadcast and printed notices depending on the severity of the contamination problem. The increased number of contaminants regulated and the increased level of monitoring required created additional problems for State primacy programs.
- ***More stringent coliform monitoring requirements*** in the 1986 Amendments increased the frequency of coliform detection. Increased requirements for follow-up monitoring after initial detection revealed even more problems. This led to greater awareness of the inadequacy of some sources of water, even after treatment.
- The Amendments created the provision for ***waivers and exemptions from chemical monitoring***. The effect of this provision on States was to increase their administrative work and to increase the need for site-specific information from water systems.
- The ***lead and copper*** requirements affected systems of all sizes making implementation an enormous undertaking. The lead and copper requirements were also difficult to implement because the need for relatively high pH water to prevent corrosion seemed to contradict microbial treatment needs of a lower pH for effective coagulation and disinfection practices. Balancing water chemistry, treatment needs and compliance with several regulations became an increasing challenge.

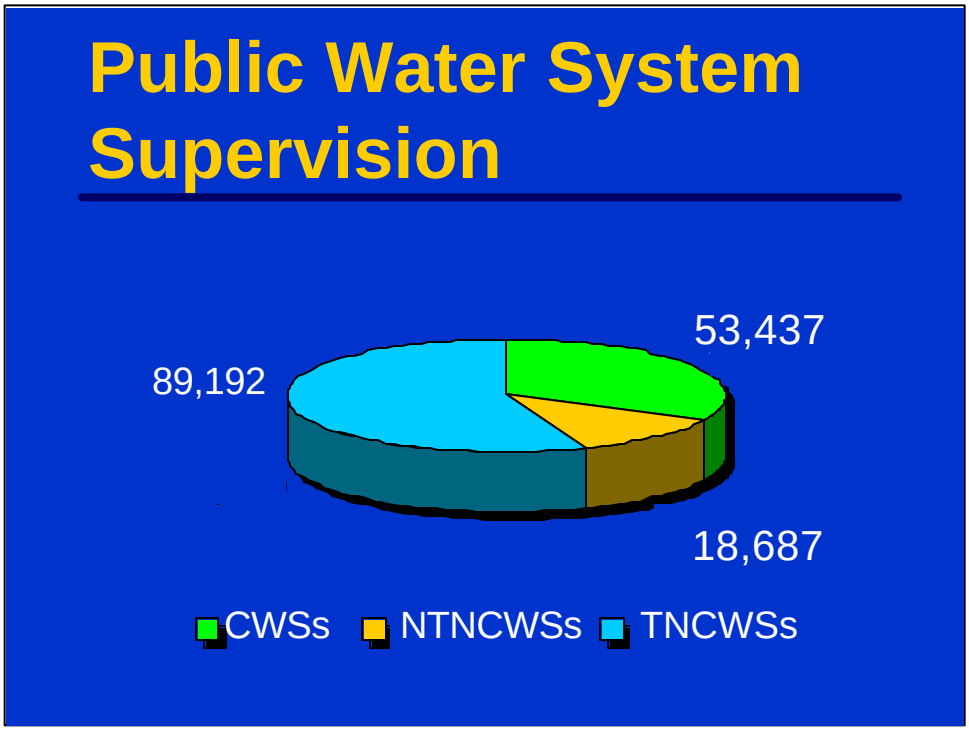


- The 1996 SDWA Amendments addressed the concerns of many stakeholders.
- First, the Amendments addressed concerns about the existence of an overly burdensome regulatory structure by making regulatory improvements. Congress eliminated the 1986 requirement that EPA regulate an additional 25 contaminants every three years. Instead, EPA was allowed to establish a process for ***selecting contaminants to regulate based on scientific merit***. EPA now has the flexibility to decide whether or not to regulate a contaminant after completing a required review of at least five contaminants every five years. This ***risk-based contaminant selection*** process requires EPA to use the ***"best available, peer-reviewed science and supporting studies."*** EPA is also required to conduct ***cost-benefit analyses*** of new regulations and analyze the likely effect of the regulation on the viability of public water systems.
- The Act also added new and stronger prevention approaches. The comprehensive, preventive approach of the 1996 SDWA Amendments introduced the non-regulatory source water assessment and protection program.
- Second, the Amendments addressed concerns about funding needs for PWS infrastructure and State program management by establishing the ***Drinking Water State Revolving Fund (DWSRF)***. The DWSRF was modeled after the Clean Water State Revolving Fund.
- Third, the Amendments strengthened EPA's enforcement authority, but also included provisions to help increase the ability of small systems to comply with the regulations. SDWA Section 1420 mandates that EPA assist States in developing water systems' ***financial, managerial, and technical*** capacity.
- Fourth, Congress believed that the ***public*** should be provided with ***more information*** about their drinking water. This concern was addressed by several provisions in the Act, including an annual report to be sent out by each water system.

- The next several slides will discuss the major programs under SDWA:
  - The public water system supervision program;
  - The underground injection control program; and
  - The source water protection program.

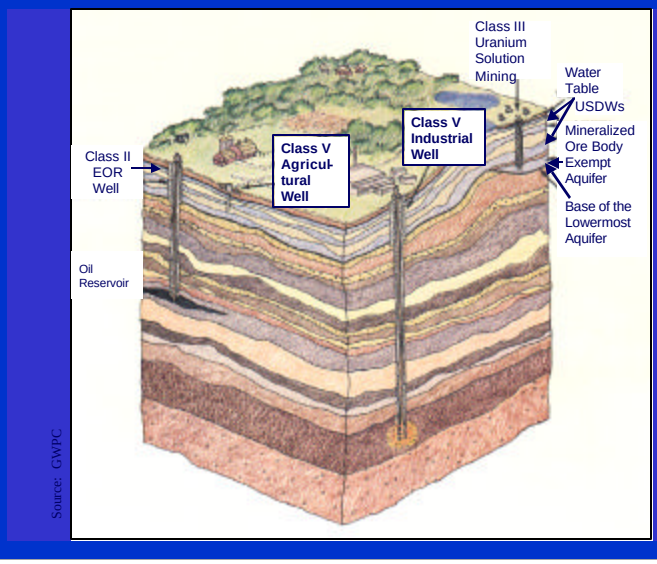


- The public water system supervision (PWSS) program implements the ***National Primary Drinking Water Regulations***, which can be found in 40 CFR Part 141. The PWSS program also implements programs to enhance water system operation.
- A ***public water system (PWS)*** is defined by the ***Safe Drinking Water Act (SDWA)*** as "a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections, or regularly serves at least twenty-five individuals." [Section 1401(4)(a)]. Thus, individuals on wells and systems that serve fewer people are not captured under Federal regulations, though some States regulate smaller systems. Federally regulated systems are called "public water systems" because they serve water to the public, but this does not describe ownership. It is important to note that a public water system may be publicly owned (e.g., owned by a municipality) or privately owned (e.g., owned by an investor-owned utility or by the owner of a mobile home court).
- SDWA further divides public water systems into ***community water systems (CWSs)*** and ***non-community water systems (NCWSs)***.
- CWSs include any public water system that serves 25 people or 15 connections year-round. Examples of CWSs include municipal water systems or water systems that serve a mobile home park or other groups of residents.
- NCWSs are PWSs that do not serve a permanent resident population. This latter category is further defined, and includes two water system types.
    - The first, ***non-transient, non-community (NTNCWSs)*** includes systems serving at least 25 people (the same people) at least six months of the year, such as some churches, schools, and factories.
    - The second, ***transient non-community (TNCWSs)***, includes facilities such as roadside stops, commercial campgrounds, hotels, and restaurants that have their own water supplies and serve a transient population at least 60 days per year.
- Each of these types of PWSs can be publicly or privately owned.

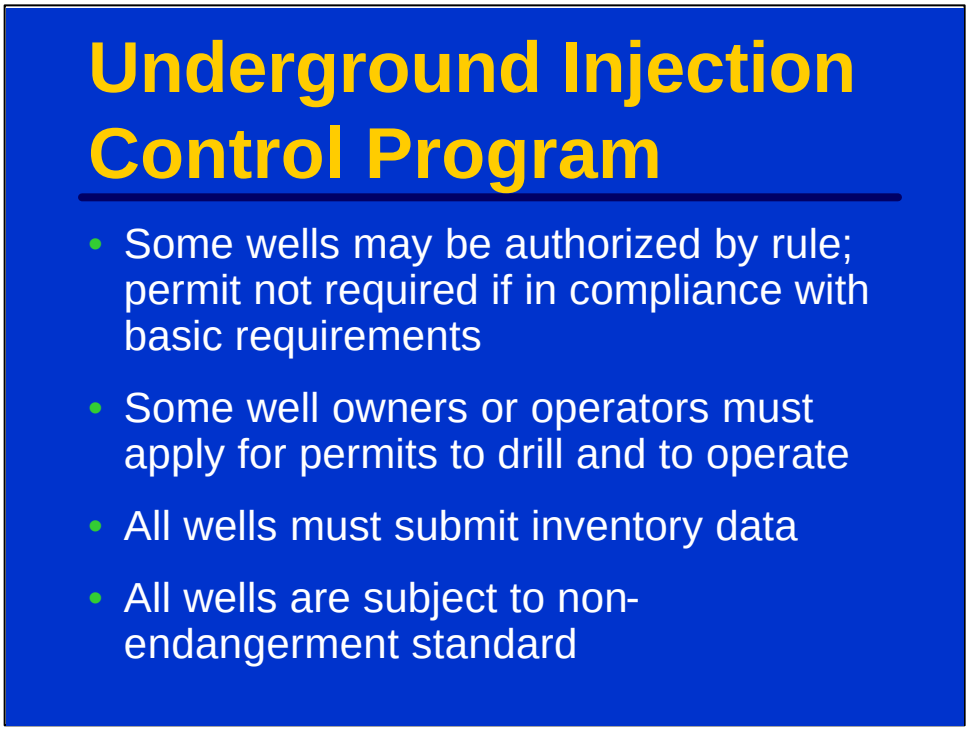


- The decision to regulate systems serving 15 service connections or 25 people was somewhat arbitrarily decided during the debate in Congress for the 1974 SDWA. It is interesting to note that when Congress defined PWSs in the 1974 SDWA, the number of water systems that met the definition was unknown, but was thought to be a much smaller universe. There are currently approximately 162,000 water systems regulated by the Federal government in the U.S.
- PWSs are divided into community water systems, transient non-community water systems, and non-transient, non-community water systems because the risks to the populations these systems serve vary. The majority of PWSs are TNCWSs. While these systems are numerous, they do not serve the majority of the population because each system only serves a small number of people. However, almost everyone is served by transient non-community water systems at some point. (Remember that TNCWSs include roadside stops, commercial campgrounds, hotels, restaurants, and other facilities that have their own water supplies and serve a transient population at least 60 days per year.) For example, water that you drink at a campground or a restaurant may be from a TNCWS. Therefore, it is important to regulate these systems even though they generally serve small populations.
- The number of systems regulated is very large. Of those 53,437 systems that meet the definition of a CWS, 93 percent are considered to be small systems—serving fewer than 10,000 people. Even though these small systems are numerous, they serve only a small fraction of the population. For example, systems that serve 3,300 people or fewer make up 84 percent of CWSs nationwide, yet serve 10 percent of the population. On the other hand, the approximately 361 systems (about 1.0 percent of systems) that serve more than 100,000 people provide water to more than 45 percent of the population served by community water systems.
- The 1996 Amendments adopt the following measures for the PWSS program to facilitate more effective enforcement and encourage compliance, while keeping safeguards for systems: streamlined processes for administrative compliance orders and penalties up to $5,000; increased administrative and emergency penalty caps; enforcement moratorium of up to two years for violations being remedied by a plan to consolidate with another system; and mandatory administrative penalty authority to obtain or retain PWSS State primacy.

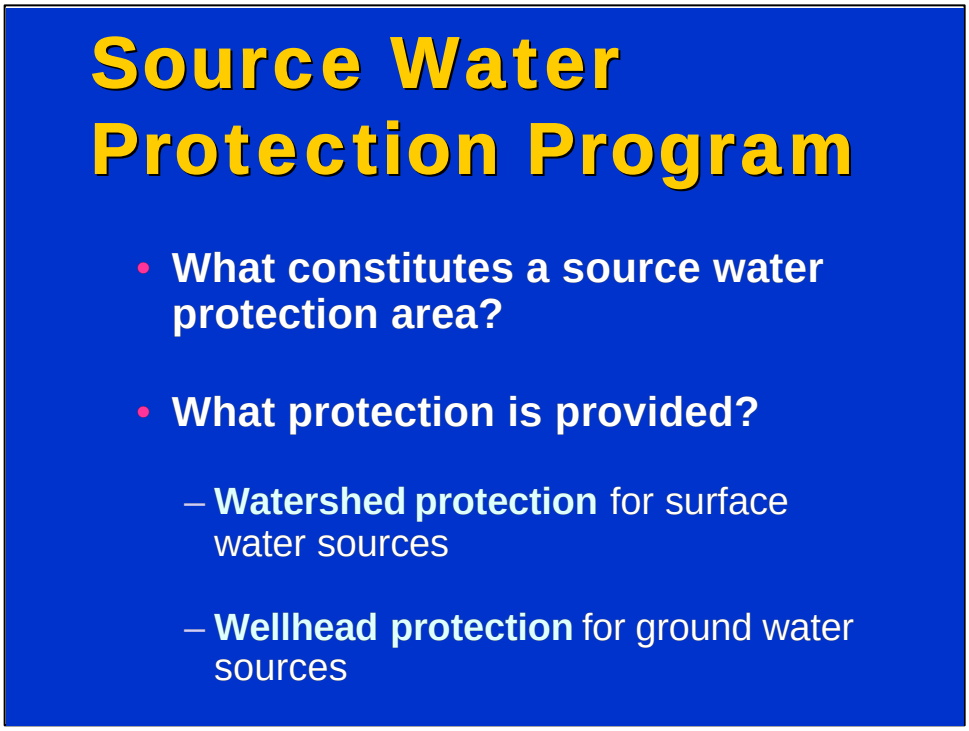
Underground Injection Control Program



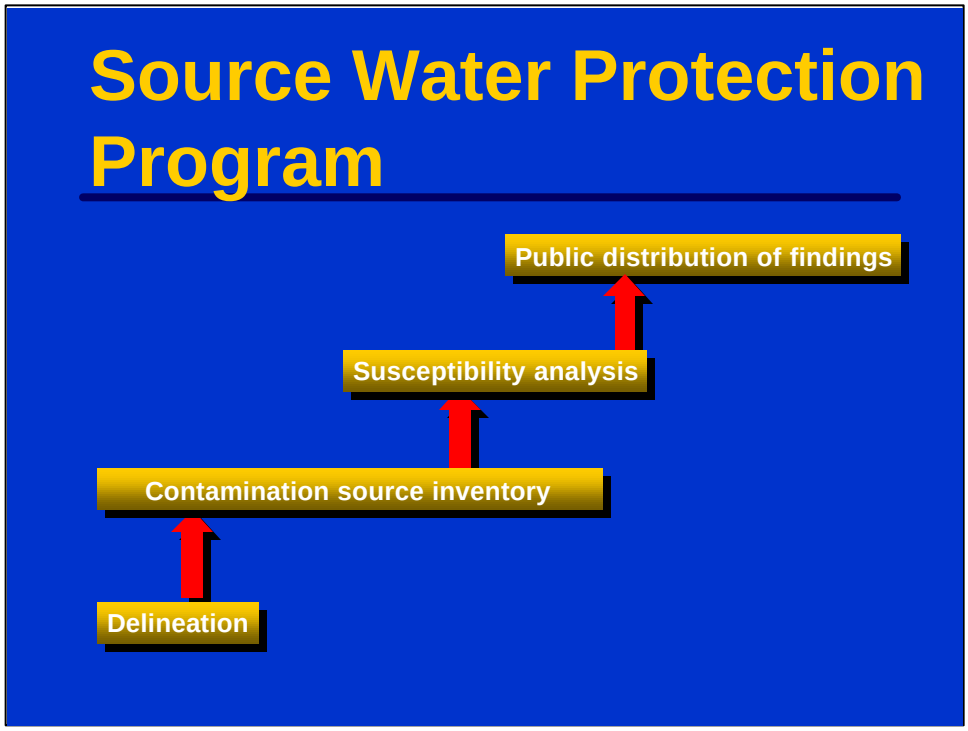
- The ***Underground Injection Control Program*** (UIC) regulates discharges of fluids into underground sources of drinking water (40 CFR Parts 144-148). The Act provides EPA with the authority to limit the concentrations of contaminants discharged by wells or to close wells that endanger drinking water sources. From 1974 until 1986, the UIC program was EPA's major tool for protecting ground water resources. Today, injection into the subsurface is one of the primary means of disposing of liquid wastes. Nationwide, over 800,000 wells are used for disposal of hazardous and nonhazardous wastes.
- Injection wells are the conduit for the ***subsurface emplacement of fluids through a bored, drilled, or driven well or though a dug well where the depth of the dug well is greater than the largest surface dimension; or a dug hole whose depth is greater than the largest surface dimension; or an improved sinkhole; or a subsurface fluid distribution system***.
- Injection wells may not only *inject* fluid, they may also be the conduit for fluids to drain or seep into the subsurface.
- Injection wells are used to put fluid *into* the subsurface versus drinking water wells which are used to take water *out of* the subsurface.
- There are many types of injection wells. In order to regulate the universe of wells, EPA established five classes of UIC wells.
- ***Class I wells*** are technologically sophisticated wells that inject large volumes of hazardous or non-hazardous wastes into deep, isolated rock formations.
- ***Class II wells*** inject fluids associated with oil and natural gas production.
- ***Class III wells*** inject super-hot steam, water, or other fluid into mineral formations, which is then pumped to the surface and the minerals are extracted.
- ***Class IV wells*** inject hazardous or radioactive wastes into or above underground sources of drinking water. These wells are ***banned***. Some of the existing wells are associated with CERCLA or RCRA cleanups; others will be plugged and abandoned or the waste stream will be changed to allow the wells to continue to operate. RCRA and CERCLA remediation wells must be operated according to standards that require ground water to be treated before reinjection into the same formation from which the fluid is withdrawn.
- ***Class V wells*** use injection practices that are not included in the other classes. Class V wells vary widely. Some are technologically advanced wastewater disposal systems used by industry, and others are "low-tech" holes in the ground.



- When a well is authorized by rule, it means that the owner/operator does not have to apply to EPA or the State for a permit as long as he complies with the requirements of the rule. Some UIC well types require a permit to drill before the well may be installed, and a permit to operate before the well may be used. The owner or operator must apply for a permit from EPA or the primacy State. The permit application requirements, as well as conditions imposed in a permit, vary based on the type of well, material injected, geology of the area and other factors.
- Owners or operators of all UIC wells, whether the well is subject to permitting or is authorized by rule, are required to submit basic inventory information to the appropriate regulatory agency. Additionally, all wells are prohibited from endangering underground sources of drinking water (USDWs), known as the "non-endangerment standard."



- Among the key provisions of the 1996 Amendments was the ***Source Water Protection Program***, which includes measures to identify and protect all sources (both surface water and ground water) of drinking water.
- A ***Source water protection area*** is the watershed or ground water area that may contribute pollution to the water supply. The entire area needs to be protected in order to minimize pollution of the source water.
- A ***wellhead protection area*** is the area surrounding a drinking water well or well field (area containing one or more drinking water wells that produce a usable amount of water) that is protected to prevent contamination of the wells. This area includes the "recharge zone," which is the land area that replenishes the aquifer.
- A ***watershed*** is the land area from which water drains into a stream, river, or reservoir. A ***watershed protection area*** is the portion of the watershed that is protected to prevent contamination of the surface water source. A watershed protection area may include wellhead protection areas since protection of surface water sources may encompass areas that recharge a ground water well.
- Whether a public water system relies on surface water, ground water, or a combination of the two, protection of a water system's source is important. Prevention of contamination is one of the most cost-effective methods of ensuring safe drinking water supplies. If source water becomes contaminated, expensive treatment or replacement of the water source may be required before safe drinking water can be delivered to users. Treatment costs are passed on to every user served by the public water system. It is prudent to protect source water before contamination occurs.



- The 1996 Amendments added Section 1453, which requires PWSS primacy States to develop comprehensive Source Water Assessment Programs (SWAPs). All States were required to submit their SWAP plans to EPA by February 6, 1999. EPA has approved 52 SWAPs. A State has two years, plus an extension of up to 18 months, to complete all source water assessments after EPA approval of its program.
- States must perform source water assessments for all public water systems. These assessments can be done on an "area-wide" basis involving more than one PWS. To be considered complete, a local source water assessment must include four components:
  - Delineation of the ***source water protection area*** (SWPA), the portion of a watershed or ground water area that may contribute pollution to the water supply.
  - Identification of all significant potential sources of drinking water contamination within the SWPA. The resulting ***contamination source inventory*** must describe the sources or categories of sources of contamination either by specific location or by area.
  - Determination of the water supply's susceptibility to contamination from identified sources. The ***susceptibility analysis*** can either be an absolute measure of the potential for contamination of the PWS or a relative comparison between sources within the SWPA.
  - Distribution of the source water assessment results to the public.
- The source water protection program is non-regulatory at the Federal level. State and local governments may, but SDWA does not require them to, implement regulatory or non-regulatory protection programs based on their source water assessments.

- Obtaining safe drinking water is a problem civilizations have faced for thousands of years. While tremendous progress has been made in improving the testing, treatment, protection and provision of drinking water to the public, numerous challenges remain.
- Public health protection has been, and remains, the national drinking water program's most important focus. As a result, there has been a steady increase over the years in the percentage of people served by water systems that meet all health-based standards. This increased public health protection came about from the implementation of a multiple barrier approach that recognizes that contaminants reach drinking water through many pathways. Accomplishments in public health protection include:
  - Improved detection and treatment technologies;
  - New and ongoing research about drinking water contaminants;
  - A variety of source water protection programs;
  - Increased cooperation among local, state and federal drinking water professionals;
  - Consumers who are more informed about drinking water issues, such as contaminant health risks and the need for water conservation; and
  - Voluntary programs like the Partnership for Safe Water, which encourages and assists U.S. public water suppliers to voluntarily enhance their water systems' performance.
- However, even greater effort will be needed to deal with new and ongoing challenges.
  - With an increasing survival rate among cancer patients, a higher percentage of elderly citizens, and a growing HIV/AIDS population, it will become increasingly critical that drinking water health information be provided in a timely fashion to immuno-compromised populations.
  - To continue learning about the health effects of known and emerging contaminants, the public and private sectors must work together to more effectively and efficiently conduct sound scientific research.
  - Given the national increase in population, urbanization and development, it will be especially important for all communities to participate in water conservation measures and source water protection activities to lessen the negative impacts that these trends can have on the quality and availability of drinking water.
  - Water professions will also need to evaluate the structure of the drinking water industry to determine whether restructuring or other activities can help alleviate small system compliance problems and whether funds to cover infrastructure costs can be more efficiently allocated, especially for economically disadvantaged communities.
  - Drinking water professions must also continue to educate the public about drinking water issues.

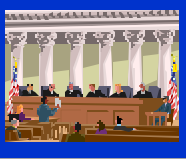
Review Questions

To which branch of the Federal government does EPA belong?

A. Executive Branch

B. Judicial Branch

C. Legislative Branch



Review Questions

EPA was established on _____.

EPA was established on December 2, 1970.

Review Questions

True or False. **Early State public health protection programs were aimed at reducing typhoid deaths.**

True. ***Both water pollution and drinking water programs focused on reducing disease outbreaks.***

Review Questions

True or False. **EPA's mission is to protect human health, endangered species, and the environment.**

False. ***EPA's mission is to protect human health and the environment.***

Review Questions

What are the national goals of the Clean Water Act?

The national goals of the Clean Water Act are:

Eliminate the discharge of pollutants by 1985 and achieve by July 1, 1983, as an interim goal, a level of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water.

Review Questions

True or False. **The following programs are implemented under the Clean Water Act:**

- **Source water protection**
- **Underground injection control**
- **Water quality standards**
- **Nonpoint source control**

False. ***The source water protection and underground injection control programs are under the Safe Drinking Water Act. The water quality standards, National Pollutant Discharge Elimination System, watershed, nonpoint source, and wetlands programs fall under the Clean Water Act.***

Review Questions

Water quality goals are defined by _____ and _____ criteria, _____ uses, and use _____ _____.

Water quality goals are defined by numeric and narrative criteria, designated uses, and use attainability analysis.

Review Questions

True or False. **The NPDES permit program controls water pollution by regulating point and nonpoint sources that discharge pollutants into waters of the United States.**

False. ***The NPDES permit program does not control nonpoint sources.***

Review Questions

True or False. **Nonpoint sources include discharges from industry and POTWs.**

False. ***Nonpoint sources are diffuse discharges. They are caused by rainfall or snowmelt flowing over and through the ground. Agriculture, forestry, septic systems, and urban runoff are examples of nonpoint sources.***

Review Questions

Section 404 of the Clean Water Act provides protection for _____. Section 404 is jointly administered by the _____ and EPA.

Section 404 of the Clean Water Act provides protection for wetlands. Section 404 is jointly administered by the U.S. Army Corps of Engineers and EPA.

Review Questions

True or False. **A treatment technique may be established instead of a maximum contaminant level if there is not a reliable method that is economically and technologically feasible to measure the contaminant.**

True. ***A treatment technique is an enforceable procedure or level of technological performance that public water systems must follow to ensure control of a contaminant.***

Review Questions

True or False. **SDWA regulated only publicly-owned water systems with at least 15 service connections or that regularly serve at least 25 people.**

False. ***SDWA regulates public water systems; i.e., they provide water to the public. They may be either publicly or privately owned.***

Review Questions

___-_____, ___-_____ water systems include systems serving at least 25 people at least six months of the year, such as some churches, schools, and factories. _____ ___-_____ water systems include facilities such as roadside stops, commercial campgrounds, hotels, and restaurants that have their own water supplies and serve a _____ population at least 60 days per year.

Non-transient, non-community; Transient, non-community; transient

Review Questions

1. Class I wells
2. Class II wells
3. Class III wells
4. Class IV wells
5. Class V wells

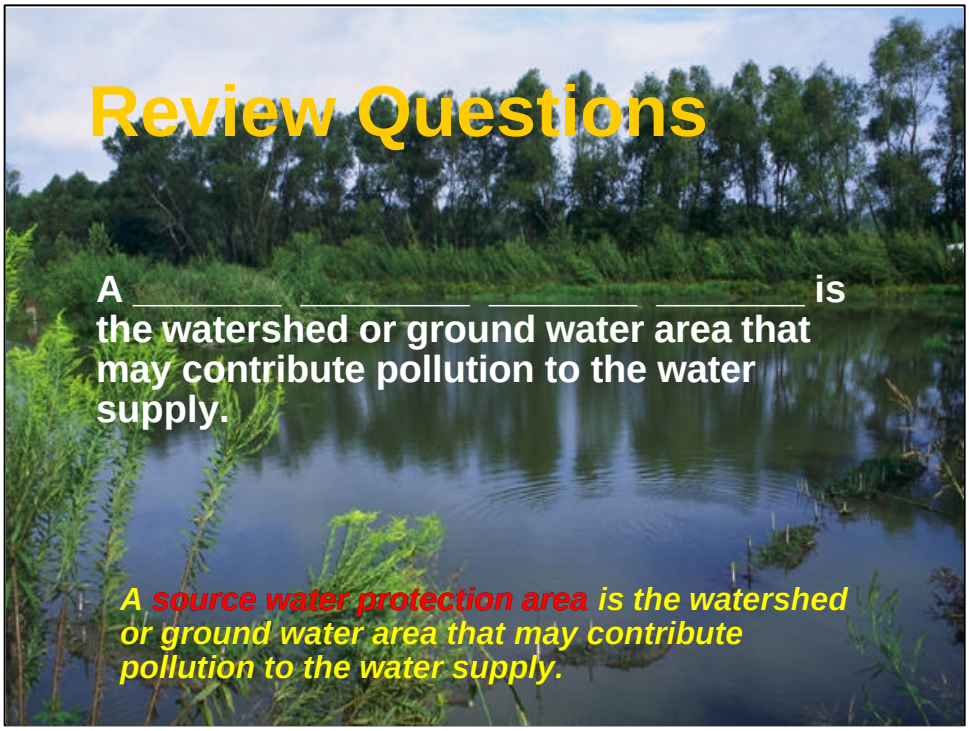
A. Inject fluids for mineral extraction
B. Inject wastes into deep, isolated rock formations
C. Everything else
D. Inject fluids associated with oil and natural gas production
E. Inject hazardous or radioactive wastes into or above underground sources of drinking water

- 1, B
- 2, D
- 3, A
- 4, E
- 5, C

Review Questions

Which of the following classes of underground injection wells is banned?

A. Class I wells
B. Class II wells
C. Class III wells
D. Class IV wells
E. Class V wells


Review Questions
A _____ _____ _____ _____ is the watershed or ground water area that may contribute pollution to the water supply.
A source water protection area is the watershed or ground water area that may contribute pollution to the water supply.

Review Questions

True or False. **The four components of a Source Water Assessment for public water systems are:**

Delineation of the source water protection area
Contamination source inventory
Susceptibility analysis
Public distribution of findings

True.

Review Questions

The 1996 SDWA Amendments addressed concerns about funding needs for water system infrastructure by establishing the _____.

The 1996 SDWA Amendments addressed concerns about funding needs for water system infrastructure by establishing the *Drinking Water State Revolving Fund.*

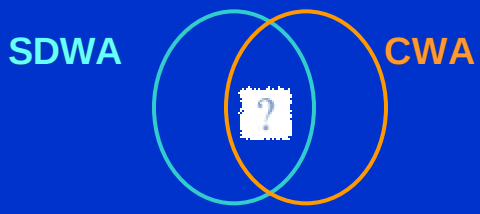
Review Questions

True or False: **The Safe Drinking Water Act primarily addresses discharges to surface water and drinking water systems. The Clean Water Act addresses discharges to ground water and wastewater treatment plants.**

False. ***SDWA addresses protection of drinking water sources (both ground and surface water) and the water systems that deliver drinking water to the public. The Clean Water Act regulates wastewater discharges to surface water, supports the creation and rehabilitation of wastewater treatment plants, and protects surface water.***

Review Questions

True or False: **There is no overlap between the Safe Drinking Water Act and the Clean Water Act.**



False. ***The Safe Drinking Water Act and the Clean Water Act both protect surface water used as a source of drinking water.***

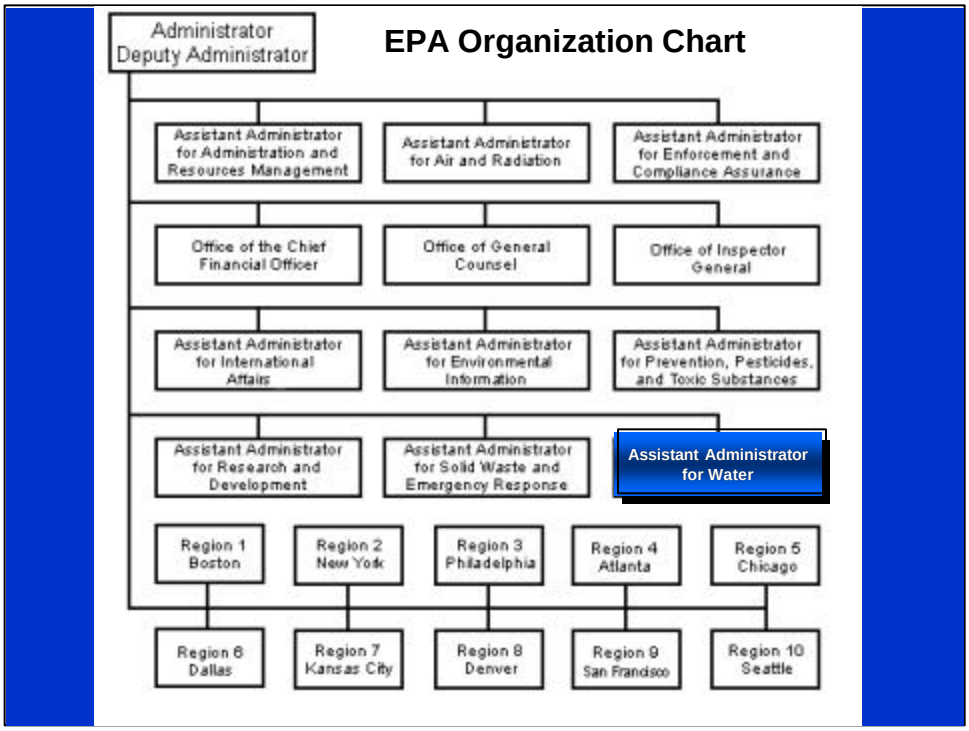
Administration of EPA's Water Programs

EPA's Organization

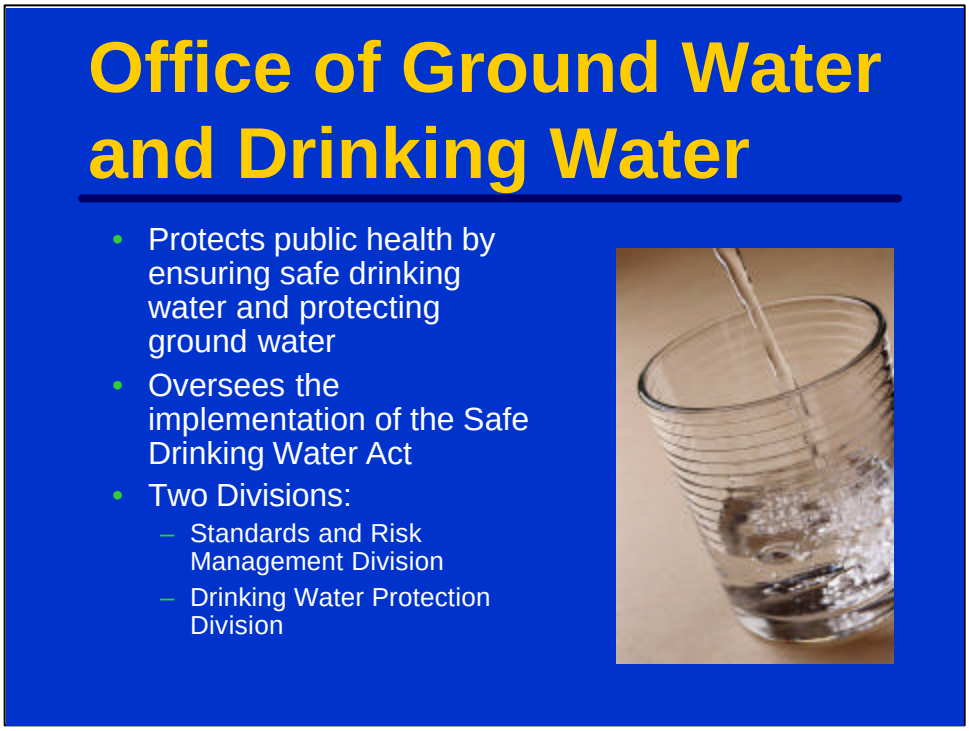
The Budget Process

Information Management

- The Agency's organization has changed significantly since it was established in 1970. There are now nine Assistant Administrators and several staff offices that report to the Administrator, as well as the ten Regional Offices.
  - This section of the course will discuss the EPA offices that administer the Clean Water Act and the Safe Drinking Water Act, organized under the Assistant Administrator for Water.
  - In addition, it will discuss the water-related responsibilities of the Offices of Research and Development and Compliance and Enforcement Assistance.
  - Finally, it will discuss the support provided by several staff offices.
- Following this, we will discuss the Agency's budget process and how it manages information under the two statutes.



- The ***Office of Water*** is responsible for providing Agency-wide policy, guidance, and direction for EPA's water-related programs. These programs include water quality, drinking water, wastewater, wetlands, marine and estuarine protection, and other water-related programs. This Office consists of five individual offices:
  - ***American Indian Environmental Office;***
  - ***Office of Ground Water and Drinking Water***;
  - ***Office of Science and Technology***;
  - ***Office of Wastewater Management***;
  - ***Office of Wetlands, Oceans and Watersheds***.



- The ***Office of Ground Water and Drinking Water*** (OGWDW), together with States, Tribes, and its many partners, protects public health by ensuring safe drinking water and protecting ground water; overseeing implementation of the Safe Drinking Water Act; developing and helping to implement national drinking water standards; overseeing, assisting and helping to fund State drinking water programs and source water protection programs; helping small drinking water systems; protecting underground sources of drinking water through the Underground Injection Control Program; and providing information to the public.
- OGWDW consists of two divisions: the ***Standards and Risk Management Division*** and the ***Drinking Water Protection Division***.
  - The ***Standards and Risk Management Division*** is responsible for setting drinking water standards and monitoring requirements, establishing priorities for new standards, and researching technologies that water systems can use to comply with new and existing standards.
    - Part of the Standards Division is the ***Technical Support Center***. The Technical Support Center, which is located in Cincinnati, provides technical and scientific support to the development and implementation of drinking water regulations; manages implementation of the Information Collection Rule; manages the drinking water laboratory certification program; and supports the Partnership for Safe Water, treatment plant optimization and analytical methods development.
  - The ***Drinking Water Protection Division*** oversees implementation of SDWA regulations through the public water system supervision, source water assessment and protection, sole source aquifer, and underground injection control programs. It is also responsible for maintaining drinking water information through computer databases and the Internet, promoting training through the Drinking Water Academy (DWA), administering the Drinking Water State Revolving Fund, and promoting consumer awareness of drinking water issues.

Office of Science and Technology

- Sets national environmental baselines for the quality of the nation's waters
- Provides guidelines, methods, standards, criteria and studies to help States implement water quality protection programs
- Three Divisions:
  - Engineering and Analysis Division
  - Health and Ecological Criteria Division
  - Standards and Applied Science Division

- The ***Office of Science and Technology*** (OST) sets national environmental baselines for the quality of the nation's waters. OST ensures these baselines reflect the latest water pollution science and best available water pollution control technologies to support the Office of Water's programs to keep water safe and clean. It produces major water pollution control regulations, guidelines, methods, standards, science-based criteria and studies that are critical components of national programs that protect people and the aquatic environment. OST consists of three divisions: the ***Engineering and Analysis Division***, the ***Health and Ecological Criteria Division*** and the ***Standards and Health Protection Division***.
  - The ***Engineering and Analysis Division (EAD)*** is responsible for developing effluent limitation guidelines and standards, writing regulations, and conducting economic and statistical studies.
  - The ***Health and Ecological Criteria Division (HECD)*** is responsible for developing risk and exposure assessment methodologies; providing risk assessment support; developing human health and ecological risk methodologies, criteria documents, and guidance; establishing selection criteria for the list of toxic pollutants; and developing methodologies, technical regulations, and guidelines governing sewage sludge.
  - The ***Standards and Health Protection Division (SAHPD)*** is responsible for directing the national water quality standards program; providing guidance to Regional Offices reviewing State standards; promulgating Federal water quality standards; developing a management strategy for sediment evaluation; developing and coordinating guidance on contaminated sediments and fish; developing technical guidance on water quality-based controls; and overseeing the development of water quality standards programs for Indian Tribes.

Office of Wastewater Management

- NPDES
- National pretreatment program
- Biosolids management
- Clean Water State Revolving Fund

- The ***Office of Wastewater Management (OWM)*** oversees a range of programs contributing to the well-being of the nation's waters and watersheds. Through its programs and initiatives, OWM promotes compliance with the requirements of the Clean Water Act. These programs include:
  - Direction of the ***National Pollutant Discharge Elimination System (NPDES) Permit Program***, including storm water management, and control of combined sewer and sanitary overflows;
  - Oversight of the ***National Pretreatment Program***, emphasizing control and prevention of water pollution from industrial facilities;
  - Enhancement of the Agency's biosolids (sewage sludge) management program that promotes the understanding and compliance with the Federal biosolids rule at 40 CFR Part 503 as well as the adoption of additional user and environmentally friendly practices for managing biosolids; and
  - Administration of the ***Clean Water State Revolving Fund (CWSRF)*** and the Clean Water Action Section 106 grant programs for environmental infrastructure investment.
- In addition, OWM provides technical advice and training to industries and municipalities in an effort to improve compliance with wastewater regulatory requirements. OWM also provides outreach and technical assistance to help small, rural and underserved communities provide adequate wastewater treatment and disposal services.

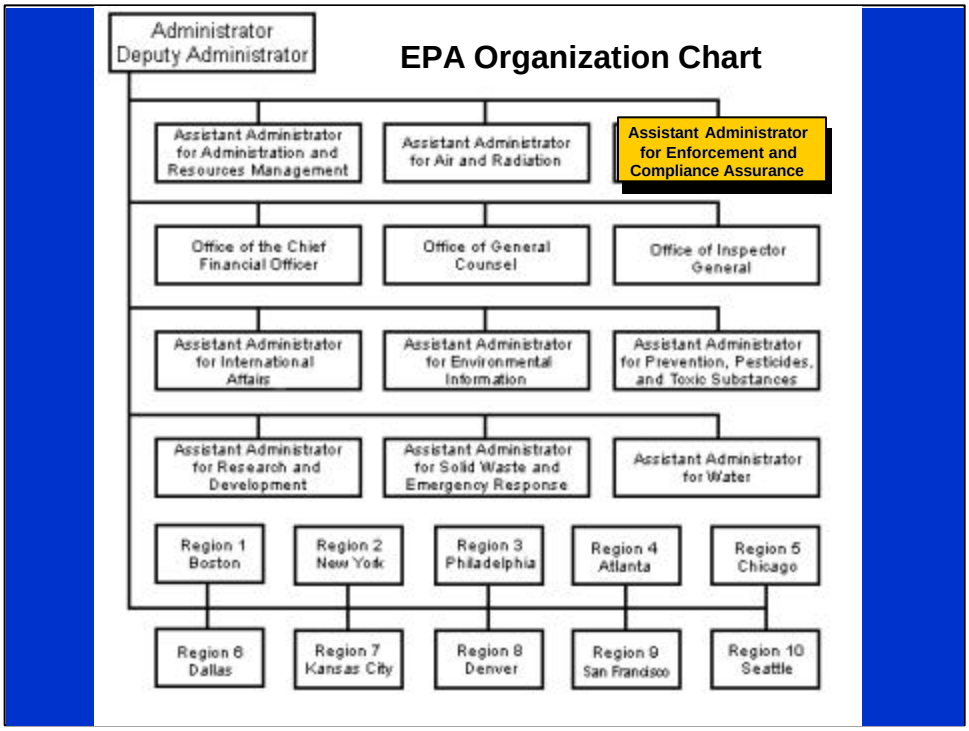
Office of Wetlands, Oceans, and Watersheds

- Promotes a watershed approach to water resources and aquatic ecosystems
- Provides technical and financial assistance
- Develops regulations and guidelines
- Three Divisions
  - Wetlands Division
  - Assessment and Watershed Protection Division
  - Oceans and Coastal Protection Division

- The ***Office of Wetlands, Oceans and Watersheds*** (OWOW) promotes a watershed approach to manage, protect, and restore the water resources and aquatic ecosystems of our marine and fresh waters. This strategy is based on the premise that water quality and ecosystem problems are best solved at the watershed level and that local citizens play an integral role in achieving clean water goals. OWOW provides technical and financial assistance and develops regulations and guidance to support the watershed approach. OWOW consists of three Divisions: the ***Wetlands Division***, the ***Assessment and Watershed Protection Division***, and the ***Oceans and Coastal Protection Division***.
- Section 404 of the Clean Water Act establishes a permit program to regulate discharges of dredged or fill material into waters, including wetlands, of the United States. The ***Wetlands Division*** is responsible for implementing the permit program in conjunction with the U.S. Army Corps of Engineers. It helps States and Tribes to develop wetland conservation plans and incorporate wetlands into watershed plans and water quality standards to provide additional protection that other water bodies commonly receive.
- The ***Assessment and Watershed Protection Division*** develops national guidance on water quality assessment reporting, biological monitoring and criteria, volunteer monitoring methods, and quality assurance. It collects and summarizes State, Tribal and interstate water quality assessment reports into a National Water Quality Inventory Report to Congress. The report focuses on the extent to which water quality meets goals and standards established to protect aquatic ecosystems, drinking water supplies, fish consumption, recreational activities and other uses designated by States. The Division implements the ***Total Maximum Daily Load*** (TMDL) program, which assists States, Tribes, and territories to meet their water quality standards, and the ***Nonpoint Source Management Program***, which provides grants to States, Tribes and territories administer their nonpoint source programs as well as guidance for improving best management practices to control runoff.
- The ***Oceans and Coastal Protection Division*** is responsible for assessing and reducing the extent of marine debris in waterways, controlling pollution from ships and discharges to coastal waters from industry and municipalities, and ensuring that ocean dumping of dredged materials and other wastes is managed in an environmentally sound manner. It also tries to limit the introduction of non-indigenous aquatic organisms in U.S. waters, assess and reduce the air deposition of nutrients and toxic pollutants into coastal waters, identify beaches that are environmentally friendly and safe to swim, and address *Pfiesteria* and other harmful algal blooms. The Division implements the ***National Estuary Program***, which focuses on maintaining the integrity of the whole estuarine system through the ***Comprehensive Conservation Management Plan***. The plan identifies specific actions to control pollutants such as point and nonpoint sources of toxics and nutrients, restore or create wetlands and other habitats, control discharges from septic tanks, and undertake other activities.

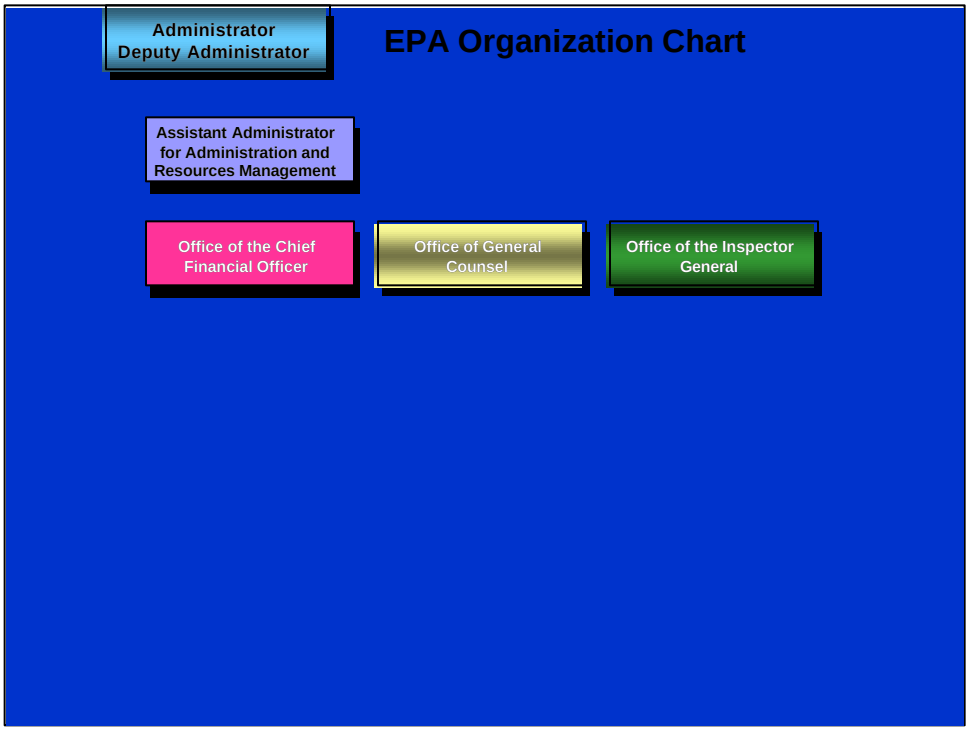
- The American Indian Environmental Office (AIEO), formed in 1994, oversees development and implementation of the Agency's Indian policy. Although AIEO is located in the Office of Water, it is a multimedia office and its 16 staff members work with the EPA Regions (except Region 3, which does not have any Federally-recognized Tribes) and Headquarters program offices to implement EPA's Indian Program. AIEO's work currently is focused in the following areas:
  - Supporting EPA's Tribal Operations Committee, the National Indian Work Group, and the Senior Indian Program Managers;
  - Coordinating the development of EPA's guidance on implementing Executive Order 13175 on Consultation and Coordination with Indian Tribal Governments;
  - Leading EPA's Indian country environmental data collection effort through the Baseline Assessment Project; and
  - Serving as National Program Manager for the general assistance program grants to Tribes.

- The ***Office of Research and Development (ORD)*** is responsible for research related to health risk assessment, health effects, engineering and technology, monitoring, and quality assurance for drinking water issues. ORD is organized into three national laboratories and two national centers located in a dozen facilities around the country and in Washington, D. C.
- ORD's Mission is to:
  - ***Perform research and development*** to identify, understand, and solve current and future environmental problems;
  - ***Provide responsive technical support*** to EPA's mission;
  - ***Integrate the work of ORD's scientific partners*** (other agencies, nations, private sector organizations, and academia); and
  - ***Provide leadership*** in addressing emerging environmental issues and in advancing the science and technology of risk assessment and risk management.



- The ***Office of Enforcement and Compliance Assurance (OECA)***, working in partnership with EPA Regional Offices, State governments, Tribal governments and other Federal agencies, ensures compliance with the nation's environmental laws. OECA and its partners seek to maximize compliance and reduce threats to public health and the environment by employing an integrated approach of compliance assistance, compliance incentives and civil and criminal enforcement.
- ***Compliance assistance*** helps the regulated community (business, industry and government) understand and meet their environmental obligations. This includes compliance assistance activities or tools related to specific EPA statutes or regulations. Sector-oriented assistance addresses compliance issues or needs across particular business and industry sectors (e.g., dry cleaning, metal finishers, furniture manufacturers) or to government sectors (e.g., local governments, Tribal governments and Federal government facilities).
- EPA's ***civil enforcement program*** helps protect the environment and human health by assuring compliance with Federal environmental laws. Civil enforcement encompasses the investigations and cases brought to address the most significant violations, and includes EPA administrative actions and judicial cases referred to the Department of Justice.
- The ***criminal enforcement*** program identifies, apprehends, prosecutes and convicts those who are responsible for the most significant violations of environmental law that pose substantial risks to human health and the environment.
- The ***National Enforcement Investigations Center*** (NEIC) in Denver supports the civil and criminal enforcement programs by developing and implementing innovative techniques using its scientific and technical expertise, and devising specialized methods and technical field applications. NEIC has an environmental forensic center that conducts activities in field measurements and monitoring, field sampling, and laboratory measurements.

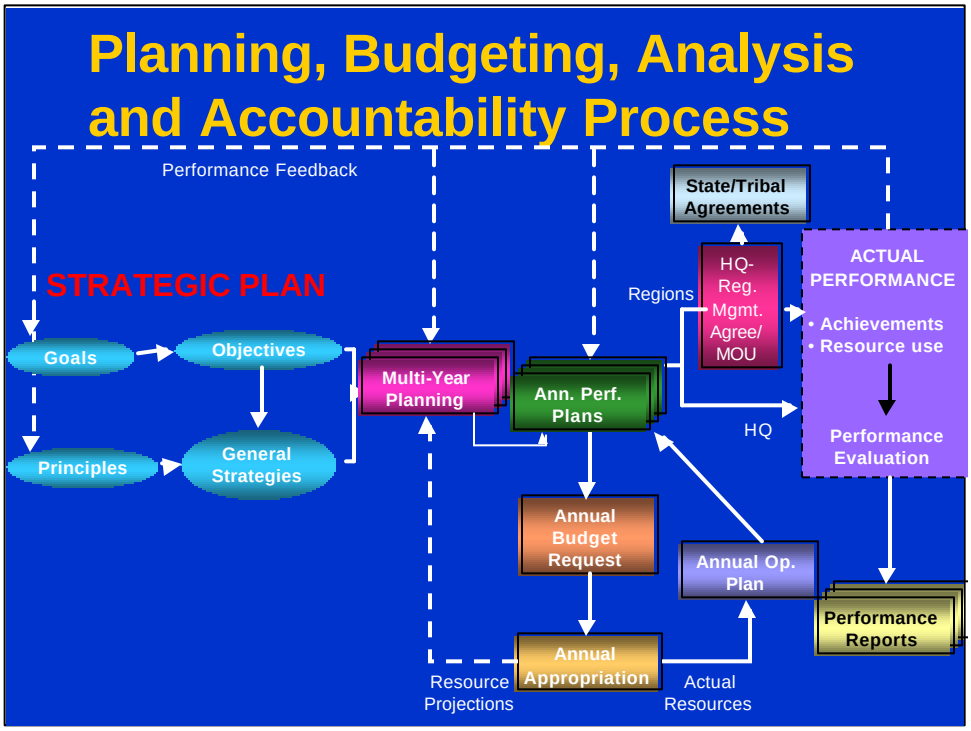
- The ten EPA ***Regional Offices*** are the primary liaisons with the States and the regulated community. The Regional are managed by ***Regional Administrators***, who are are political appointees. Their authority is delegated from the Administrator and each has substantial autonomy to manage resources within his or her Region. The Regional Administrators represent the Agency with the States, especially on important issues where interaction with the governor is required.
- The Regions oversee and track State implementation and enforcement efforts and directly implement and enforce the regulations in unauthorized or non-primacy States.
- The Regions allocate grant money to States for implementing various EPA-approved environmental programs and oversee State administration of the grants.
- The Regional Offices provide educational materials and training for State and local government employees and compliance assistance to the regulated community.



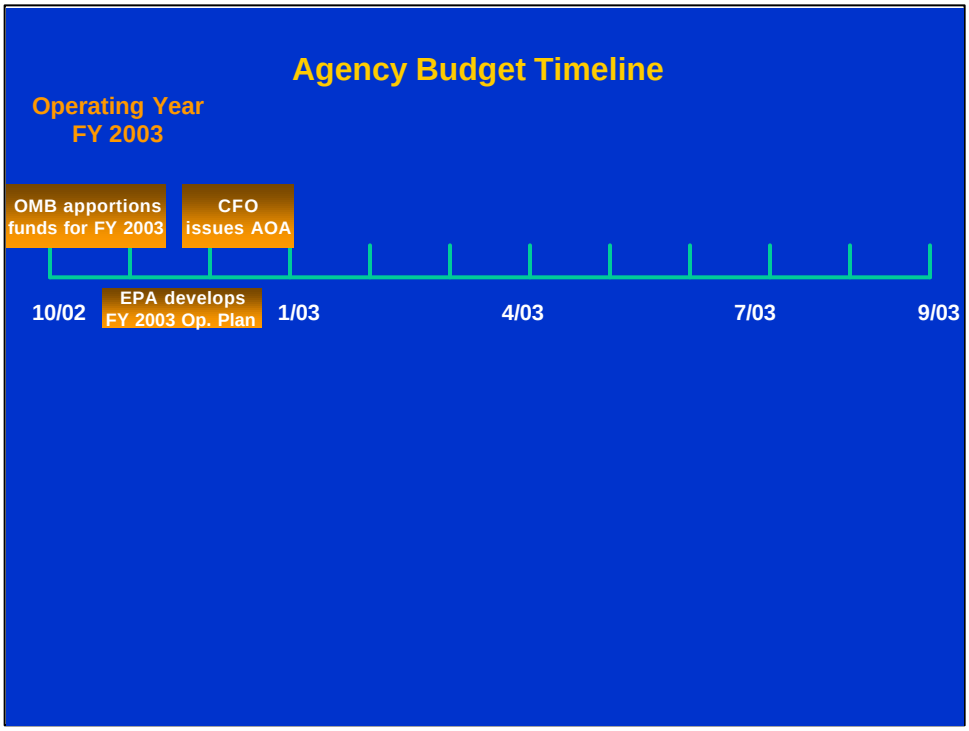
- Other EPA offices provide support and assistance to the Office of Water.
- The ***Office of the Administrator*** includes the Offices of Communication, Education and Media Relations; Children's Health Protection; Policy, Economics and Innovation; Congressional and Intergovernmental Relations; and Regional Operations. Particularly important to OW is the ***Office of Policy, Economics and Innovation***, which provides analytical and management support for the regulatory development process.
- The ***Office of General Counsel*** serves as the Agency's attorney. It provides legal opinions, legal counsel, and litigation support. In addition, the Office acts as legal advisor in the formulation and administration of the Agency's policies and programs.
- The ***Office of Administration*** provides management, infrastructure, and operations support to the Agency's approximately 150 offices and laboratories nationwide. This includes facilities management, procurement, grants management, and human resources management. OA administers EPA's Energy and Water Efficiency Program, which ensures that the Agency uses natural resources efficiently when designing, constructing and maintaining its facilities.
- The ***Office of the Chief Financial Officer (OCFO)*** develops the Agency's budget, allocates resources across the Agency's programs, performs financial management functions including program analysis, annual planning, and budget formulation, and is responsible for payroll and disbursement systems.
- The ***Office of the Inspector General (OIG)*** conducts and supervises investigations relating to the programs and operations of the Agency. OIG keeps the Administrator and Congress informed about problems and deficiencies relating to the administration of the Agency's programs and the necessity for and progress of corrective actions.

The Budget Process

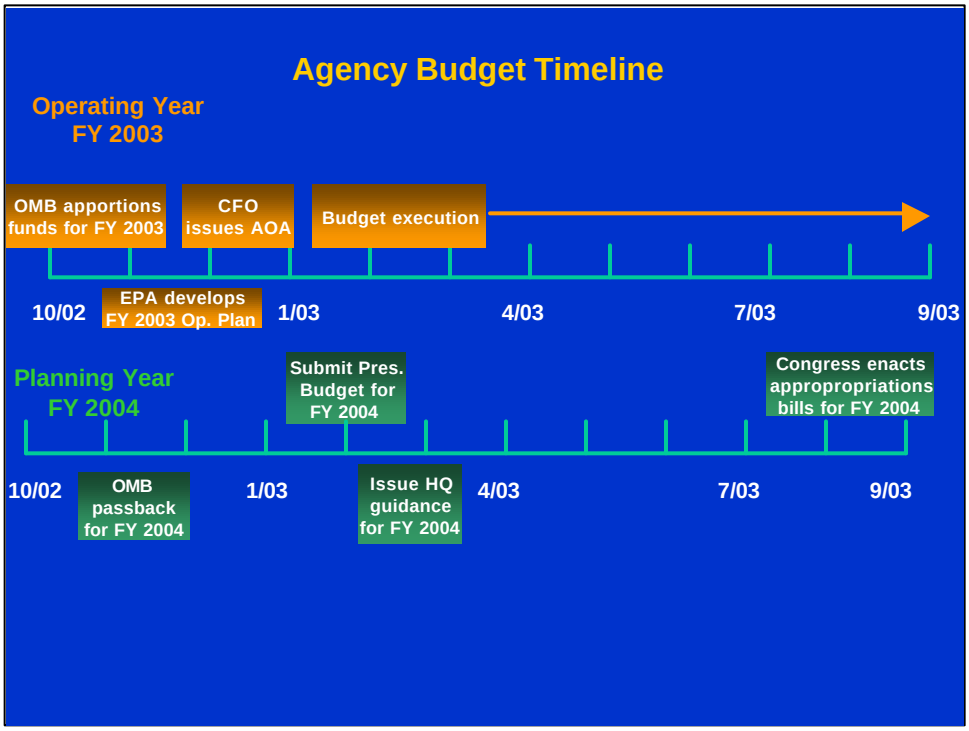
- The budget is the most tangible manifestation of public policy.



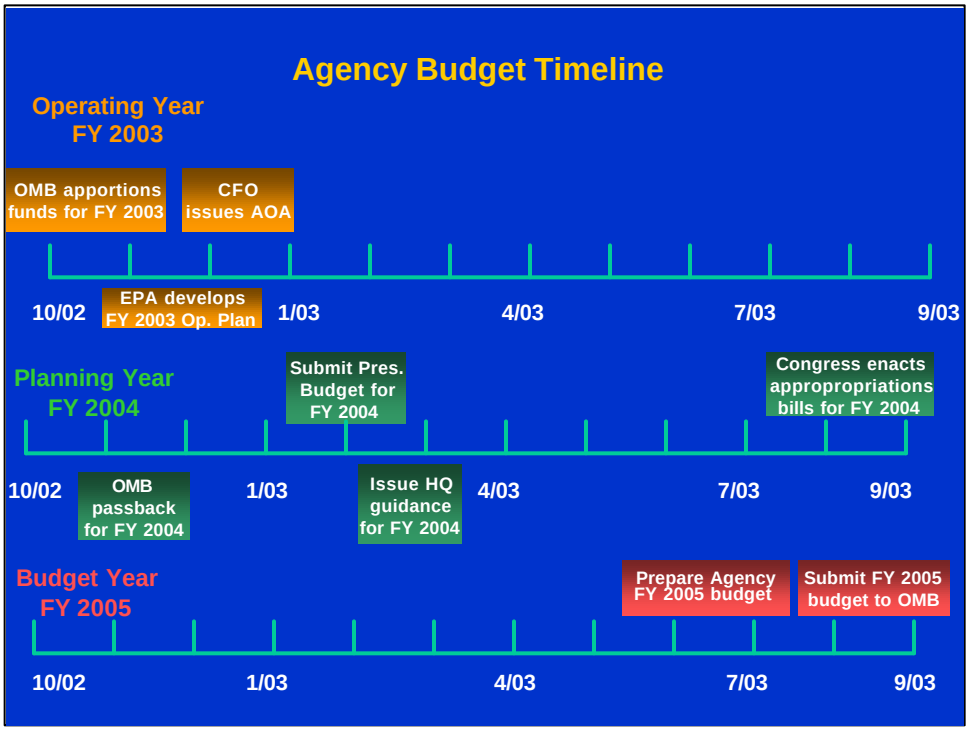
- Consistent with legislation and executive guidance, EPA's planning and budgeting process links several steps that provide for long- and short-term planning, resource allocation and use, accountability and recorded achievements.
- The first step is development of the Strategic Plan, which presents EPA's mission; long-term environmental goals; a set of guiding principles providing a common set of considerations that will be used in making decisions; and specific shorter-term objectives that the Agency will meet in achieving the goals. As required under the Government Performance and Results Act (GPRA), EPA updates this plan ***every three years***.
- Annual performance plans are prepared for each objective and serve as the basis for resource decisions. Annual performance plans describe annual performance goals, performance measures, and the activities aimed at achieving these goals.
- Based on the annual performance plans, EPA develops an annual budget request for all Agency programs. Once Congress acts on an annual appropriation, annual plans are revised and resources reallocated accordingly.
- Performance Evaluation Reports, required by GPRA six months after the end of the fiscal year, describe and assess the progress EPA has made toward achieving its long-term and annual performance goals.
- The next slides show the timeline for this process.



- At any one time, the Agency is working on budget issues for three separate years:
  - The operating year;
  - The planning year; and
  - The budget year.
- The ***operating year*** is the current fiscal year that begins every October 1 and ends September 30. At the beginning of the Federal fiscal year, EPA (and all Federal agencies) receive funds from the Office of Management and Budget (OMB). This process is called "apportionment." Note that OMB's ability to apportion funds is dependent on Congress having completed appropriations actions, which we'll discuss later.
- If Congress does not pass an annual Appropriations Act for EPA, it may instead pass a Continuing Resolution (CR) covering a shorter period of time. CRs generally do not provide for a full level of funding.
- After apportionment of final appropriations, EPA has 30 days to provide an Operating Plan to Congress for approval. The Operating Plan uses resources requested in the Congressional Budget Justification as a baseline and adjusts the resources according to Congressional appropriations.
- EPA's Office of the Chief Financial Officer (OCFO) divides EPA's apportionment into "allowances" and provides an "Advice of Allowance" to each allowance holder. An allowance holder is generally an Office Director, Regional Administrator, or another equivalent position. The annual allowance constitutes a program's budget.
- During the operating year, EPA offices and the OCFO manage and track expenditures to ensure they stay within budget limitations.



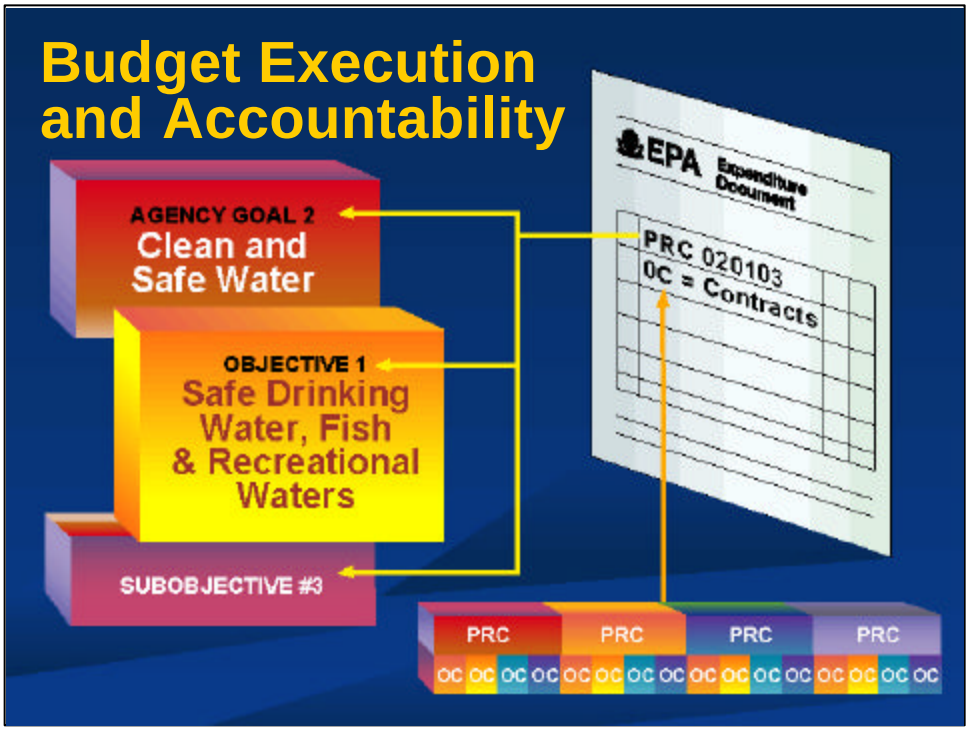
- The ***planning year*** is the year following the current fiscal year. At the same time EPA is operating its programs, it is also planning for the next year.
- In February of every year, the President submits a budget request to Congress. The budget is for the fiscal year beginning the following October and is based on the "passback" that agencies received from OMB, usually in the previous November or December. In this example, the budget submitted to Congress in February 2003 is for the fiscal year beginning on October 1, 2003, and ending September 30, 2004 (FY 2004), and is based on the budget initially submitted to OMB in September 2002 and passed back from OMB to EPA in November 2002.
- The Agency begins its planning for FY 2004 based on the numbers in the President's budget.
    - HQ program offices may issue guidance to the Regions outlining priority activities and State grant allotments for the coming year.
    - The Regions follow with guidance to their States. While following the HQ guidance, the Regional guidance can also discuss Regional priorities.
- Congress is supposed to enact appropriations bills in July. However, it rarely occurs then, and sometimes does not occur until after the start of the new fiscal year. As discussed in the previous slide, Congress will pass a Continuing Resolution for any Appropriations Act it as not completed by October 1.
- After the appropriations are enacted, it may be necessary to adjust the operating plans if Congress appropriates an amount that differs from the President's Budget request.



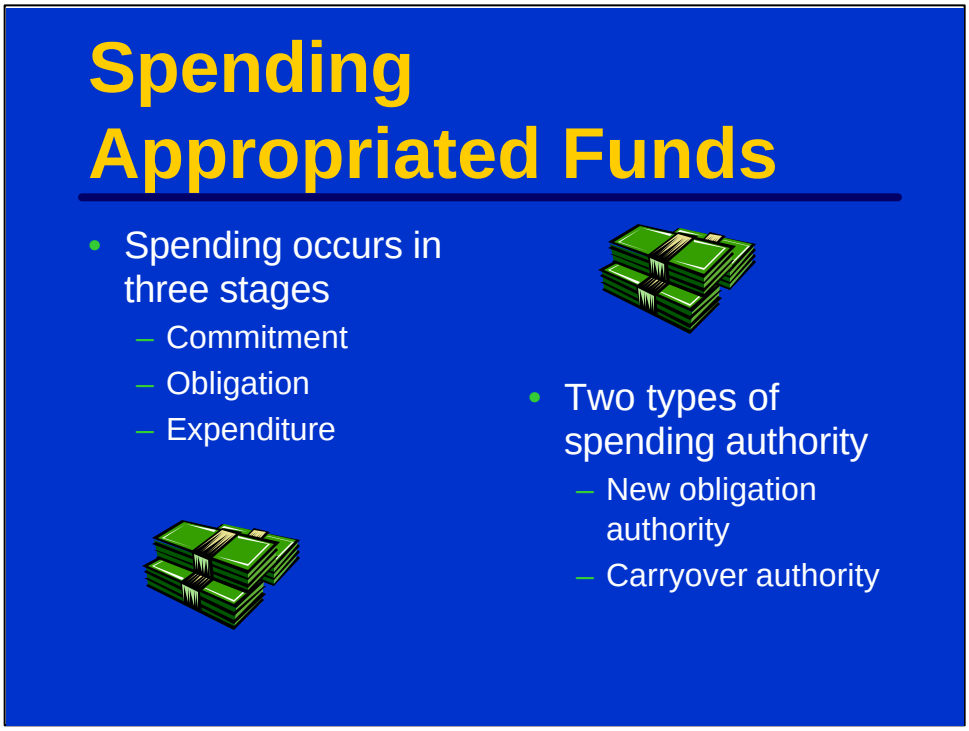
- The ***budget year*** is two fiscal years in the future. In this example, FY 2005--starting on October 1, 2004, and ending on September 30, 2005--is the budget year.
- During the spring and summer of 2003, EPA will develop its budget for FY 2005, which it will submit to OMB in September 2003. The OMB passback for FY 2005 will be issued in November or December 2003 (not on this timeline).
- This timeline has EPA planning (during the planning year) not only before the funds are available, but before the final amount of its budget is known. The timeline also requires people to look into the future to forecast a budget two years hence. This cycle requires analyses, forethought, flexibility, and adaptability to the Administration's priorities.

- EPA's budget development hierarchy begins with a series of goals (see Handout # IV-1). OW's activities fall under the goal "Clean and Safe Water." Within each goal there are several objectives. The objectives for the water programs are:
  - Safe drinking water, fish and recreational waters;
  - Protect watersheds and aquatic communities; and
  - Reduce loadings and air deposition.
- Each objective also has subobjectives. Under Objective 1, there are four subobjectives. The first three apply to OGWDW and the last to OWOW:
  - Setting drinking water standards;
  - Implementing drinking water regulations;
  - Preventing contamination of drinking water sources; and
  - Safe consumption of fish and shellfish and recreational waters.
- Below this are performance goals and performance measures. Examples of performance goals and measures are below.
- Objective 1 – Safe drinking water, fish and recreational waters:
  - ***Performance goal***: 85 percent of the population served by community water systems will receive drinking water meeting health-based standards promulgated in or after 1998.
  - ***Performance measure***: Population served by non-community, non-transient drinking water systems with no violations during the year of any Federally-enforceable health-based standards that were in place by 1994.
- Objective 2 – Protect watersheds and aquatic communities:
  - ***Performance goal***: Assess, restore and protect watersheds.
  - ***Performance measure***: Assessed river miles, lake acres, and estuary square miles that have water quality supporting designated beneficial uses, where applicable, for drinking water supply.
- Objective 3 – Reduce loadings and air deposition:
  - ***Performance goal***: Current NPDES permits reduce or eliminate loadings into the nation's waters of (1) inadequately treated discharges from municipal and industrial facilities (direct and indirect dischargers); and (2) pollutants from urban storm water, combined sewer overflows, and combined animal feeding operations.

- EPA's budget execution hierarchy starts with "object classes," which comprise a uniform classification system throughout the Federal government to identify categories of expenditures. Specific object classes include, for example, personnel compensation, benefits, travel, contracts, grants, and supplies.
- EPA's budget authority is comprised of 15 "appropriations" that enable it to carry out the missions in its authorizing statutes. The appropriations used by the Office of Water are Environmental Programs and Management (which covers most of the Agency's program offices); Science and Technology (mostly ORD); and State and Tribal Assistance Grants (which covers 17 categorical State and Tribal grant programs).
    - The Environmental Programs and Management and Science and Technology accounts use the budget hierarchy described here. State and Tribal Assistance Grants are apportioned to States using established formulas. However, States must account for expenditure of their grant funds in a similar manner.
- Earlier we discussed how the OCFO divides EPA's appropriations into allowances and provides an Advice of Allowance to each allowance holder. Expenditures are aggregated from the allowance holder (who further apportions the allowance to Divisions and Branches); to the Responsible Planning and Implementation Official; to the National Program Manager, typically an Assistant Administrator.
- Expenditure documents (such as travel authorizations or contract funding notices) contain codes that identify the appropriation and allowance and suballowance holders.

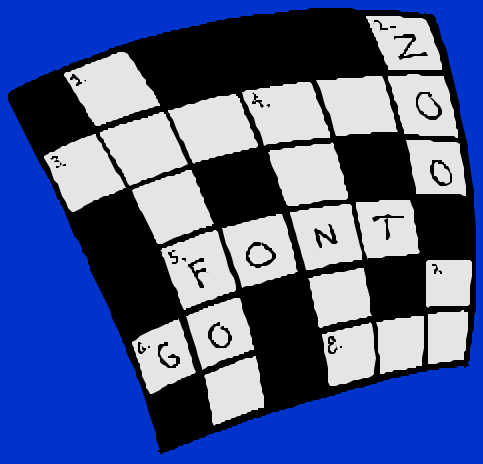


- EPA also accounts for its expenditures by the budget goals and objectives.
- Object classes are combined into "program results codes" (PRCs) that identify funds for specific activities; e.g., drinking water regulations, wetlands, or watershed research. These codes link expenditures to the budget objectives. For example, an expenditure for source water protection would be made using PRC 020103, for goal 2 (clean and safe water), objective 1 (safe drinking water, fish and recreational waters), and subobjective 3. This number would appear on any expenditure document (such as a contract funding document) for source water protection.
- Funding for each objective can also be broken down into key programs (see Handout # IV-2).



- Congress appropriates funds by purpose, time and amount. For example, in the public water system supervision program, funds for grants are two-year funds, meaning that EPA has two years in which to obligate the funds (defined below). They may only be spent for continuing program assistance and may not exceed the amount specified by law.
- Although many EPA assistance agreements are funded with multiple-year money, the operating plan is issued at the beginning of the fiscal year, and the Advice of Allowance cannot exceed one year.
- The AOA provides spending authority to each allowance holder, including authority to take the following actions:
    - ***Commitment***- an action to reserve funds in an allowance for a specific purpose (e.g., a contract, grant or cooperative agreement).
    - ***Obligation***- a binding agreement to spend a given amount of money for a specific purpose during a given time (e.g., a signed assistance agreement).
    - ***Expenditure***- occurs when payment is made for services received.
- There are two types of allowances. New obligation authority is based on Congressional appropriations that are funded each year, e.g., funds for Environmental Programs and Management. Agency carryover authority is used to spend unobligated Federal balances remaining in multi-year appropriations. Agency carryover authority should not be confused with "carryover" under a grant or contract award, which refers to funds obligated but not spent by the recipient during the budget period.

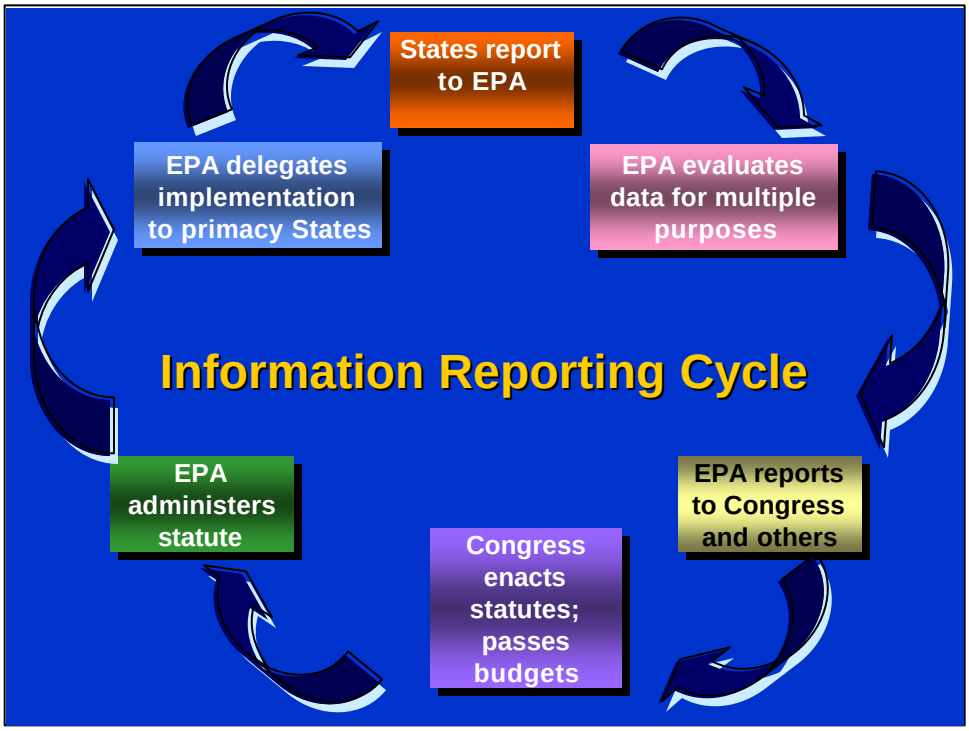
Review Crossword



- Be the first to correctly complete the crossword puzzle! (Handout # IV-3)

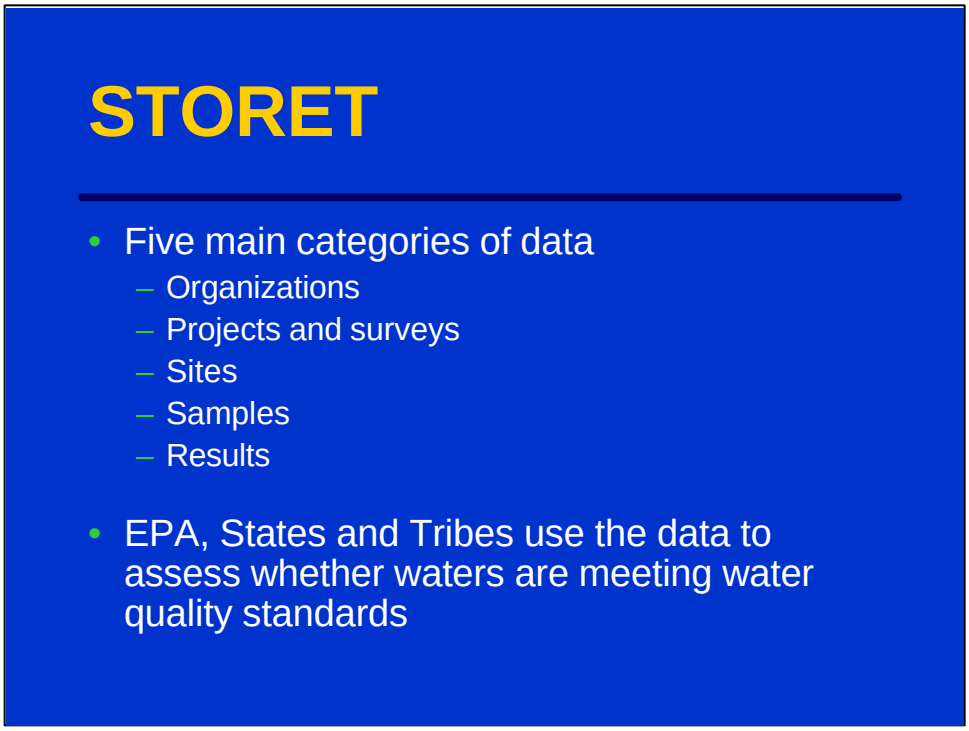
Information Management

- EPA uses information management systems to help implement environmental statutes such as the Clean Water Act and the Safe Drinking Water Act. These databases help EPA track State, Tribal, and local agencies' activities, monitor their compliance, and evaluate the effectiveness of their programs.
- The next couple of slides will discuss the information management systems EPA uses to implement the Clean Water Act and the Safe Drinking Water Act.



- Congress enacts statutes that EPA administers. As part of its check and balance authority, Congress expects, and requires, EPA to report information on its activities, progress, and difficulties in implementing the statutes.
- EPA, in turn, delegates the primary responsibility for implementing most programs to the States under primacy or authorization. EPA also expects, and requires, that the States report certain data to EPA.
- Much of the information States report is input in large data bases that EPA maintains. These data bases help both EPA and the States manage their programs, identify problems, recognize trends, and provide information to the public, Congress, and others about program status.
- Congress uses this information to ensure that statutes are being implemented as they intended. They also become more informed about program issues and can amend the statute as necessary. Congress also considers Agency information in its evaluation of budget requests.
- The next several slides provide some more detail about the two primary water-related data bases.

- ***Storage and Retrieval System for Water and Biological Monitoring Data (STORET)***
- EPA maintains STORET, a data management system containing water quality information for the nation's waters. STORET contains data collected beginning in 1999, along with older data that has been migrated from the Legacy Data Center (LDC). The LDC contains historical water quality data dating back to the early part of the 20th century and collected up to the end of 1998.
- STORET contains raw biological, chemical, and physical data on surface and ground water collected by Federal, State and local agencies, Indian Tribes, volunteer groups, and academics. All 50 States, territories, and jurisdictions of the U.S., along with portions of Canada and Mexico, are represented in this system.
- Each sampling result in STORET is accompanied by information on where the sample was taken (e.g., latitude, longitude, State, county, Hydrologic Unit Code and a brief site identification), when the sample was gathered, the medium sampled (e.g., water, sediment, fish tissue), and the name of the organization that sponsored the monitoring.
- In addition, STORET contains information on why the data were gathered; sampling and analytical methods used; the laboratory used to analyze the samples; the quality control checks used when sampling, handling the samples, and analyzing the data; and the personnel responsible for the data.



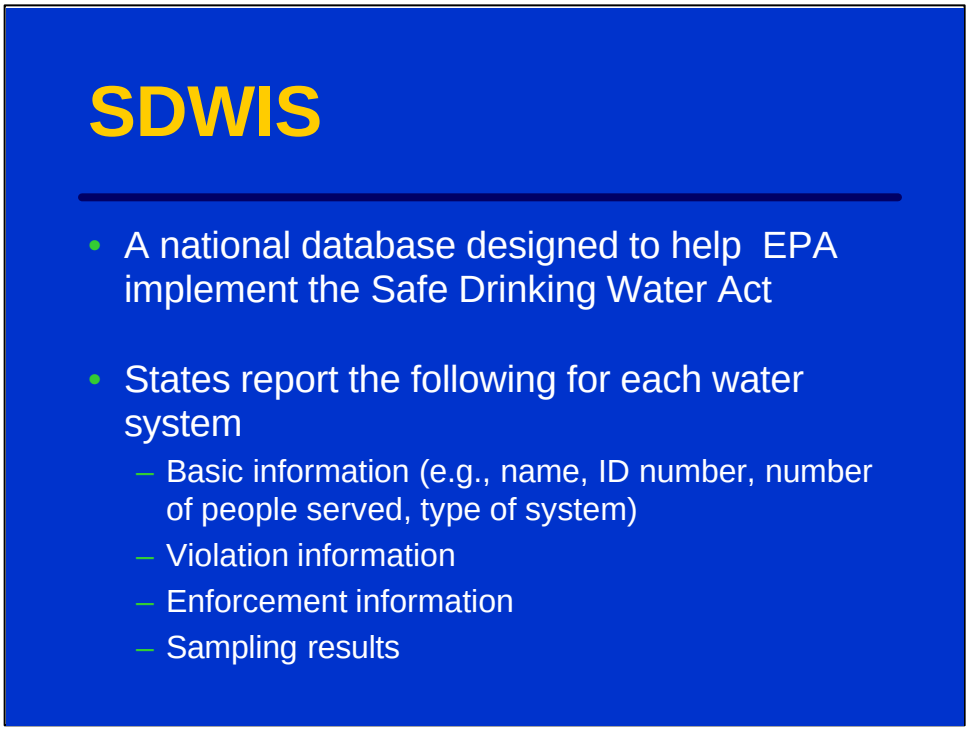
- Data in STORET are organized into five main categories: organizations, projects and surveys, sites, samples and results.
  - ***Organizations.*** The group or entity responsible for the data set, either for collecting and otherwise generating the data, or sponsoring the activity for which the data set was created.
  - ***Projects and Surveys.*** The activity during and for which the data set was created.
  - ***Sites.*** Also referred to as stations, carry the identification and description of the physical location at which monitoring occurs.
  - ***Samples.*** Water quality sampling, observation, and measurement activities that occur at these sites; comprehensive descriptors of the event during which samples were collected or the measurements performed.
  - ***Results.*** The findings of the sampling events, measurements, and field activities.
- State, Tribal, local and Federal agencies and private entities collect raw ambient water quality data and enter the data into STORET.
- States and Tribes analyze the data to determine whether their waters are meeting water quality standards. States and Tribes report this information to EPA every two years. EPA summarizes these State and Tribal water quality assessment reports, required under section 305(b) of the Clean Water Act, into a national report to Congress called the National Water Inventory.

Permit Compliance System (PCS)

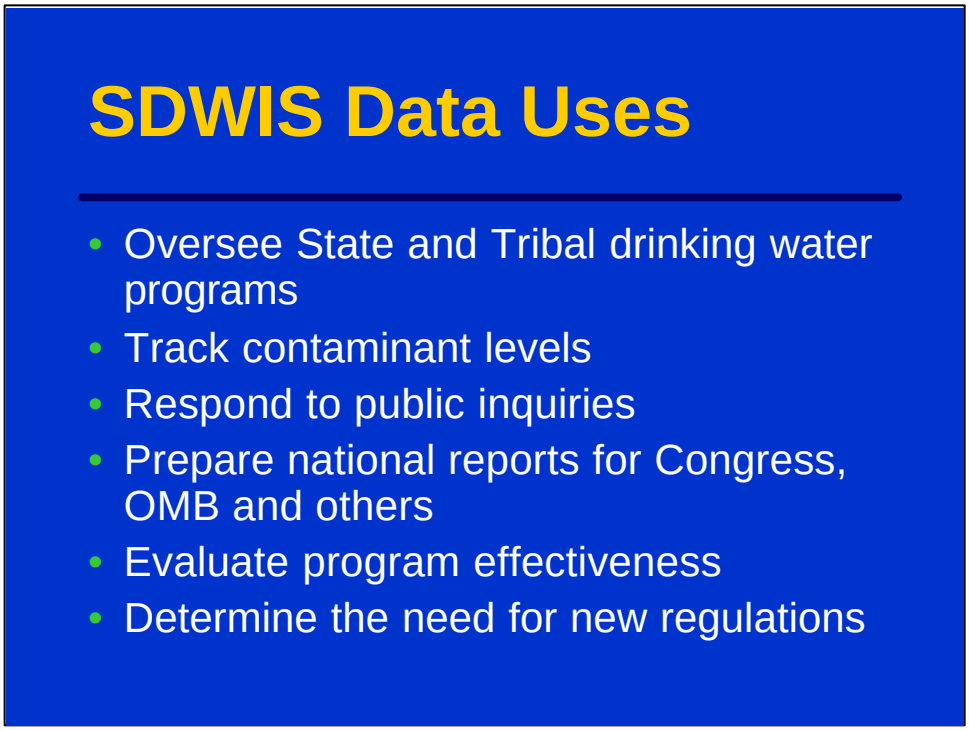
- A national management information system that automates entry, updating, and retrieval of NPDES permits
- Tracks permit issuance, limits and monitoring data, and other data pertaining to facilities regulated under NPDES

- The Permit Compliance System (PCS, administered by EPA, is a national computerized management information system that automates entry, updating, and retrieval of NPDES data and tracks permit issuance, permit limits and monitoring data, and other data pertaining to facilities under NPDES.
- PCS was developed in 1974 and resides on a mainframe computer at EPA's National Computer Center in Research Triangle Park, North Carolina. PCS records water-discharge permit data on more than 64,000 facilities nationwide.
- NPDES data tracked by PCS include:
  - Facility mailing address information and labels for all active permitted facilities;
  - General facility and permit information (e.g., issuance and expiration dates) for all active permitted facilities for the most recent year;
  - Significant non-compliance list;
  - Enforcement action information such as actions taken in response to violations of effluent parameter limits, non-receipt of discharge monitoring report or compliance schedule reports, or compliance schedule milestones for all active permitted facilities;
  - Compliance schedule information (e.g., milestones a permitted facility must accomplish to upgrade the quality of its effluent discharge when such milestones have been established as a condition for granting a permit, or in response to an enforcement action) for all permitted facilities; and
  - Facility inspection information.

- The American Indian Environmental Office initiated the Baseline Assessment Project to gain a more complete picture of environmental conditions in Indian country to improve EPA's effectiveness in protecting human health and the environment. The project will use only Federal data, that is, data in existing Federal databases or repositories such as *Envirofacts*, or data submitted as deliverables to EPA under Federal grants. The Baseline Assessment focuses on data that describe water, air, land and biological resources and the impacts of pollutants on those resources.
- EPA is integrating this data into a ***Tribal Information Management System (TIMS)*** that will measure the effectiveness of programs in Indian country and assist EPA in identifying resource needs and justifying budget requests. This system will be able to answer questions like, "how clean is the water, and what has EPA done about it?" specifically for Tribal lands.
- TIMS is a Web-based information system that allows users to access Federal environmental information for specific Tribes. Tribal governments will have the opportunity to review their information and provide comments before any information is released to the public.
- In the future, the Baseline Assessment Project will provide a framework for the environmental information gathered by EPA. Working with Tribal governments, EPA will use this framework to identify threats to public health and the environment in Indian country, target resources, provide empirical data to support Congressional budget requests, and track environmental progress as required by the Government Performance and Results Act (GPRA) of 1993.
- TIMS is currently available solely through the EPA Intranet. In the future it will be available externally with varying degrees of access. EPA will work with the Indian Health Service, as well as State, local, and nonprofit agencies, and hopes to have TIMS completed by 2005.

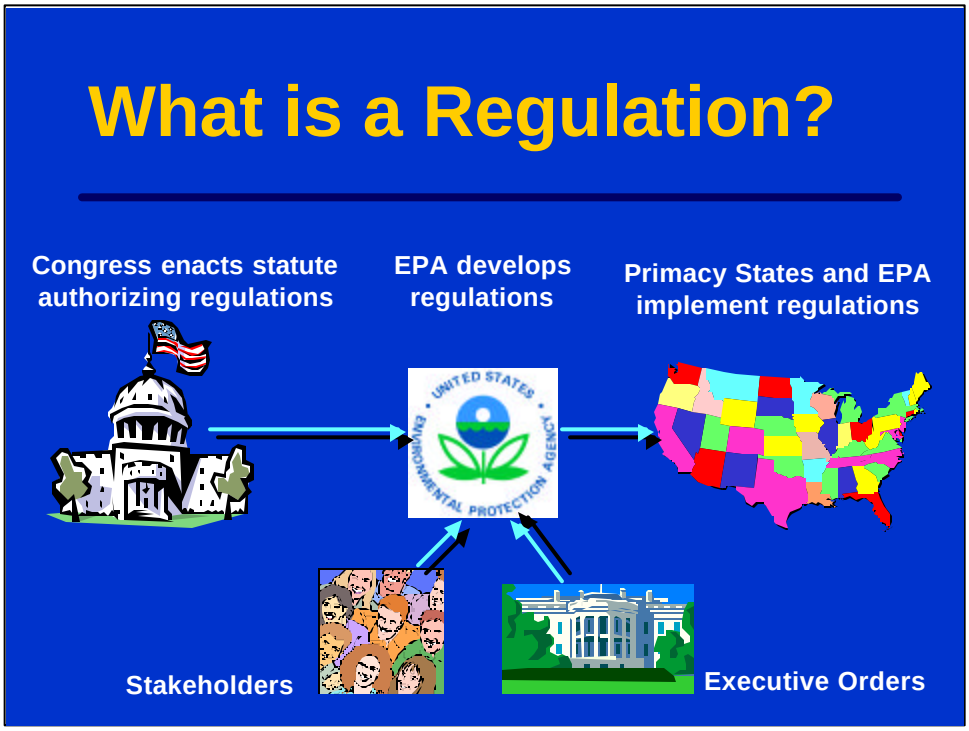


- The ***Safe Drinking Water Information System (SDWIS)*** database was designed and implemented by EPA to meet its needs in the oversight and management of the Safe Drinking Water Act. The database contains data submitted by States and EPA Regions in conformance with reporting requirements established by statute, regulation and guidance.
- A "sister" system, SDWIS/STATE (State version) was designed by EPA and States to help States and EPA Regions run their drinking water programs and fulfill EPA reporting requirements.
- SDWIS is an EPA national database storing routine information about the nation's drinking water. SDWIS stores the information EPA needs to monitor approximately 162,000 public water systems.
- States report the following information to EPA:
  - Basic information on each water system, including: name, ID number, number of people served, type of system (year-round or seasonal), and source of water (ground water or surface water);
  - Violation information for each water system: whether it has followed established monitoring and reporting schedules, complied with mandated treatment techniques, or violated any Maximum Contaminant Levels (MCLs);
  - Enforcement information: what actions States have taken to ensure that drinking water systems return to compliance if they are in violation of a drinking water regulation; and
  - Sampling results for unregulated contaminants and for regulated contaminants when the monitoring results exceed the MCL.



- Currently, EPA is in the process of determining additional information States may be required to report in the future, such as the city and county where the system is located (most States already report this information), and the latitude and longitude of the source water intake.
- EPA uses this information to oversee State drinking water programs using aggregate analyses, track contaminant levels, respond to public inquiries, and prepare national reports for Congress, OMB and others. EPA also uses this information to evaluate the effectiveness of its programs and regulations, and to determine whether new regulations are needed to further protect public health.

Regulations and the Regulatory Process



- Regulations (or rules) provide substantive and procedural details to allow effective implementation of a statutory provision. They have the same binding legal effect as a statute and usually contain rules that apply generally, rather than to specific persons or things.
- The Administrative Procedure Act (5 U.S.C. 551) defines a rule as "the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or describing the organization, procedure, or practice requirements of an agency and includes the approval or prescription for the future of rates, wages, corporate or financial structures or reorganizations thereof, prices, facilities, appliances, services or allowances therefor [sic] or of valuations, costs, or accounting, or practices bearing on any of the foregoing."
- Regulations are established by Federal agencies to which Congress has delegated authority. Authority to establish regulations must be expressly delegated in the enabling legislation. Congress may also set up procedures in the legislation for citizens to initiate rules. For example, RCRA section 7004 allows citizens to petition EPA to undertake a rulemaking action.
- A statute may set out the framework of a regulatory scheme and delegate the authority to develop and express the details in regulations. Or, a statute may do little more than delegate authority, leaving the substance of the scheme to be dealt with in regulations.

Statutory and Regulatory Comparison

- Safe Drinking Water Act
  - Section 1421: Regulations for State Programs
  - (b)(1)(C) shall include inspection, monitoring, recordkeeping, and reporting requirements. . .

- Section 1421(b)(1)(C) of the Safe Drinking Water Act requires that EPA develop regulations for the underground injection control program that "shall include inspection, monitoring, recordkeeping, and reporting requirements. . ."
- This statutory provision is implemented through regulations in 40 CFR Part 146: Underground Injection Control Program Criteria and Standards.
- As an example of how regulations provide additional detail in order to enable implementation of a statutory provision, compare the one-word requirement for monitoring standards above with the regulations at 40 CFR 146.13(b) for Class I wells:
  - *Monitoring requirements.* Monitoring requirements shall, at a minimum, include: (1) The analysis of the injected fluids with sufficient frequency to yield representative data of their characteristics; (2) Installation and use of continuous recording devices to monitor injection pressure, flow rate and volume, and the pressure on the annulus between the tubing and the long string of casing; (3) A demonstration of mechanical integrity pursuant to Sec. 146.8 at least once every five years during the life of the well; and (4) The type, number and location of wells within the area of review to be used to monitor any migration of fluids into and pressure in the underground sources of drinking water, the parameters to be measured and the frequency of monitoring.
- In addition, 40 CFR 146.13(d) contains additional requirements for ambient monitoring for Class I wells and other sections contain requirements for other classes of wells.

- Traditional environmental regulations are often referred to as "***command-and-control***" regulations. They define for the regulated community what the standard is and how it is to be achieved. They typically require a pollutant source to add types or levels of control by using a defined procedure or specified technology by a given deadline.
- These standards may cover design, construction, or operating requirements for facilities such as publicly owned treatment works (POTWs), hazardous waste treatment, storage and disposal facilities, and underground injection wells. They may contain numerical standards that must be achieved, such as Maximum Contaminant Limits (MCLs) for public water systems or effluent limitations for industrial dischargers.
- The regulations may also take the form of ***performance standards***. Such standards are fundamental to most building and engineering areas and may be designed to define how things should be done optimally to guarantee certain levels of safety, conformity and reliability. Some performance standards specify the outcome of something without actually articulating the way in which the desired outcome is to be achieved. For example, 40 CFR 144.12 prohibits UIC wells from endangering underground sources of drinking water. Although the regulations contain specific standards and requirements, the applicant for a permit has the burden of showing that this performance standard is met. If sufficient evidence is not supplied in the permit application, the permit writer may impose special conditions to assure protection, deem the permit to be incomplete or, ultimately, deny the permit.
- Regulations are implemented in two ways:
    - They may be ***self-implementing***. Regulations of this type require little or no additional interpretation. The requirements are generally applicable, not site-specific. For example, MCLs under SDWA are self-implementing. Public water systems are expected to read and implement the requirements as written, without consideration of site-specific circumstances. In those instances where EPA considers site-specific conditions to be important (e.g., system size or type), any variation in the requirement is spelled out in the regulations.
    - Standards that are ***imposed through a permit*** (or enforcement order) are typically site-specific. They require consideration of the conditions and circumstances at a site (e.g., geology and hydrogeology, input parameters, environmental setting) in order to determine the appropriate application of the regulations. For example, in establishing a monitoring program for POTWs, some of the factors that the permit writer should consider include the frequency and variability of the discharge; design capacity of the treatment facility; type of treatment method used; and the cost of monitoring relative to the discharger's capabilities.

Alternative Approaches

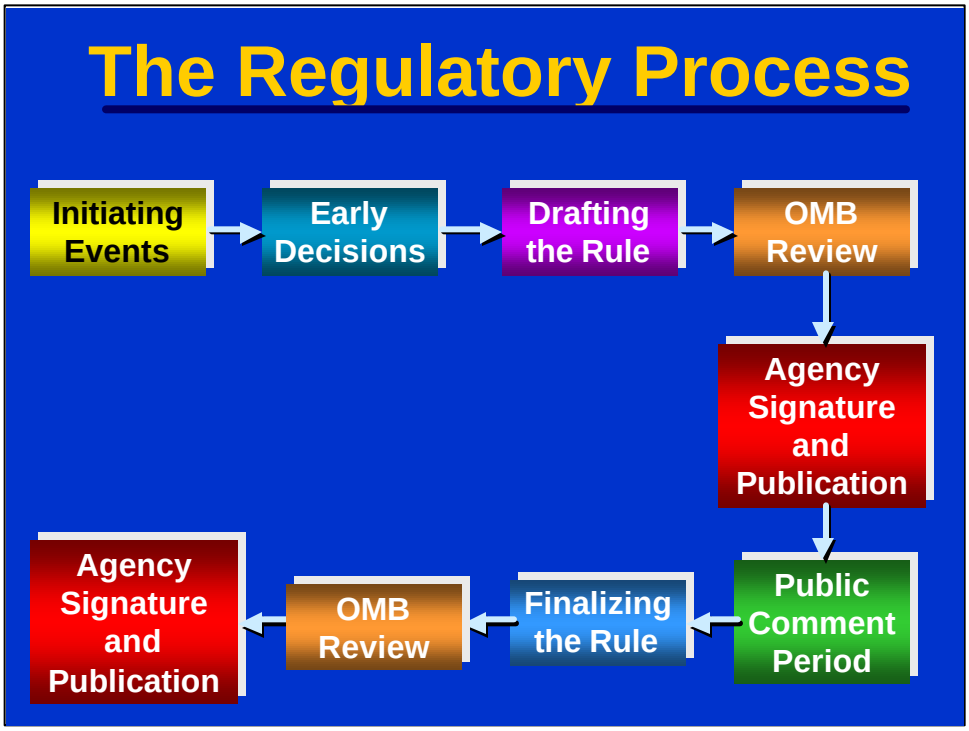
- Alternative approaches to traditional environmental regulations
  - Market-based approaches
  - Project XL

- Command and control regulations, although much criticized, were very effective in improving environmental quality and protecting public health. Starting in the early 1990s, however, EPA realized that in order to continue its environmental progress, it had to "regulate smarter." *
- EPA has implemented a number of initiatives taking ***alternative approaches*** to traditional environmental regulations.
  - ***Market-based mechanisms*** and incentives refer to approaches that are alternatives, complements, or supplements to traditional environmental regulation, and that rely on market forces, financial mechanisms, or other instruments to encourage regulated parties to reduce emissions, discharges and waste generation, or generally improve environmental performance. Existing and suggested approaches have included pollution fees, charges and taxes; deposit-refund systems; pollution allowance trading; subsidies; performance bonds; extension of property rights to environmental resources; liability approaches; information approaches; environmental management systems; and voluntary programs.
  - Within the Office of Water, EPA promotes the use of ***effluent trading*** to achieve water quality objectives and standards, to the extent authorized by the Clean Water Act. Trading supplements the current regulatory approach. It is a method to attain and maintain water quality standards, by allowing sources of pollution to achieve pollutant reductions through substituting a cost-effective and enforceable mix of controls on other sources of discharge.
  - ***Project XL***, which stands for "eXcellence and Leadership," is a national pilot program that allows State and local governments, businesses and Federal facilities to develop with EPA innovative strategies to test better or more cost-effective ways of achieving environmental and public health protection. Regulatory flexibility is one way for a project to achieve the desired benefits. Examples of tools used to provide flexibility from otherwise applicable regulatory requirements include site-specific rules, alternative permits, and waivers. Such tools are identified and evaluated on a case-by-case basis. Through the work of the project participants, and in consultation with Agency constituencies, EPA intends to evaluate and incorporate successful innovative approaches into the current system of environmental protection.

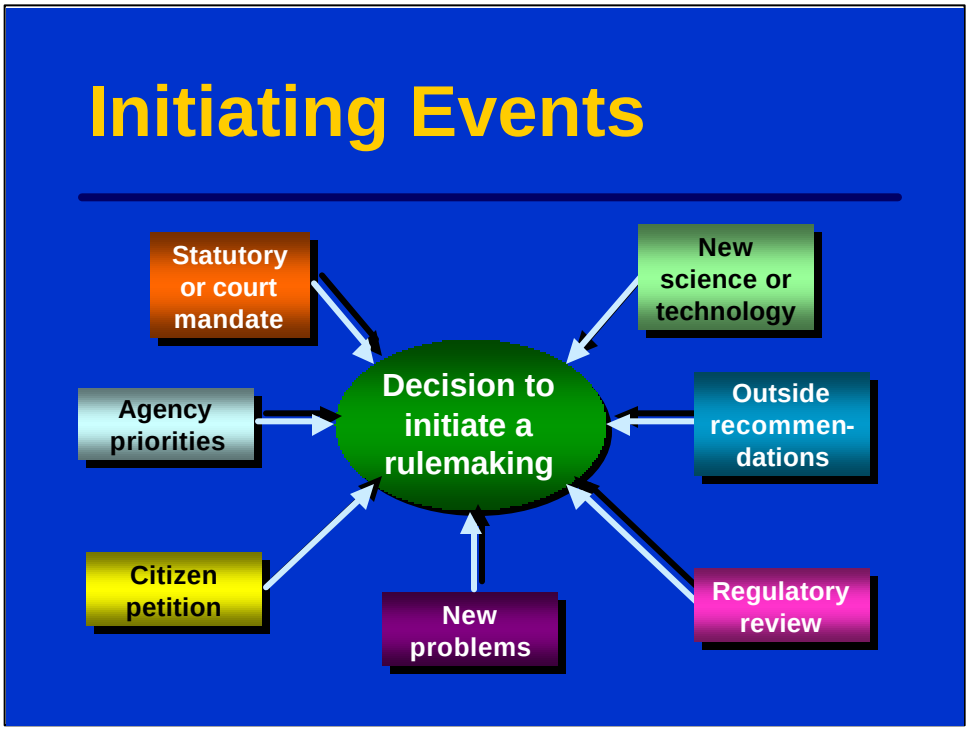
*Remarks by W. Michael McCabe, Deputy Administrator, to the National Association of Manufacturers, June 22, 2000.

- Over the last several years, EPA has initiated a range of ***partnerships*** premised on the growing sense of environmental stewardship seen in the private sector. To support this sense of stewardship, EPA is working with thousands of companies to improve environmental performance and overall efficiency. Sometimes EPA targets pollutants that are not regulated, like greenhouse gases. Sometimes EPA targets business sectors that are not regulated. And sometimes EPA forms these partnerships because everyone involved sees an opportunity for mutual gain.
- Perhaps the best-known example of this kind of partnership is the ***Energy Star*** program. Energy Star works to improve energy efficiency in a range of products like computers, VCRs, refrigerators, and motors. Energy efficiency reduces costs, but it also cuts down on the emission of greenhouse gases.
- Another example of these partnerships is ***Waste Wise***. This voluntary national program helps companies reduce solid waste and material use. Today, more than 900 organizations from more than 50 business sectors have enrolled.
- Overall, more than 7,000 companies and organizations now participate in EPA's voluntary partnership programs. The latest annual results (from 1998) show that participants conserved 1.8 billion gallons of clean water, eliminated 7.8 million tons of solid waste, and prevented air pollution equivalent to taking 13 million cars off the road. They also saved about $3.3 billion.
- In 2000, EPA initiated a new partnership program, the ***National Performance Track***. Facilities in this program will put in place an Environmental Management System; make a commitment to continuous improvement, public outreach and reporting; and demonstrate sustained compliance with environmental laws. In return, EPA will give them public recognition and streamline their regulatory processes.

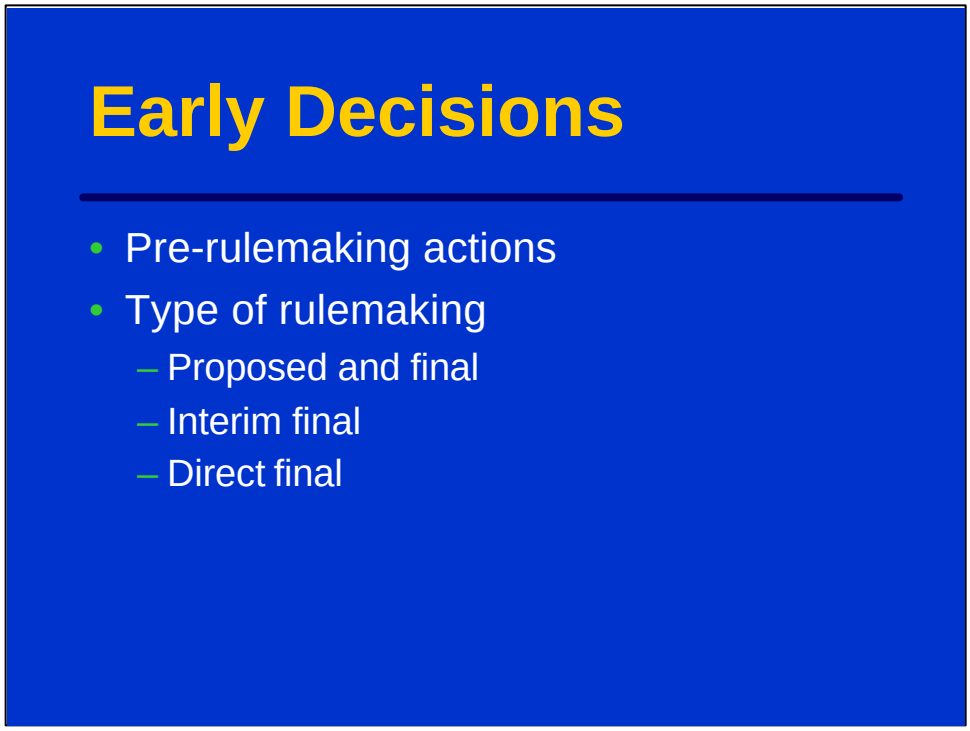
- The ***Administrative Procedure Act*** (APA) outlines the processes agencies must follow when writing regulations. The APA describes two types of rulemaking: formal and informal.
  - ***Formal rulemaking*** is used by agencies responsible for economic regulation of industries and is only required when a statute specifically states that rulemaking is to be done "on the record." Formal rulemaking involves hearings and the presentation of formal documentation to support the rule in front of a commission or judge. Formal rulemaking is rare except in cases of ratemaking by a regulatory commission (such as the Federal Energy Regulatory Commission).
  - ***Informal rulemaking***, or notice and comment rulemaking, is the most common process used by agencies for writing or "promulgating" regulations. This is the method EPA uses. Unless the rule falls within one of several exemptions (e.g., military or foreign affairs functions, agency management or personnel), rulemaking must comply with the following minimum procedural requirements:
    - A ***notice of proposed rulemaking*** must be published in the *Federal Register* that includes a statement of the time, place, and nature of the public rulemaking proceedings; a reference to the legal authority under which the rule is proposed; and either the terms or a description of the subjects and issues addressed by the proposed rule;
    - Interested persons must be given an ***opportunity to submit written information*** and opinions on the proposal, with or without opportunity for oral presentation;
    - A concise general statement of the basis and purpose must accompany the ***final rule***; and
    - Subject to certain exceptions, publication of the final rule must take place not less than 30 days before its effective date.



- The Federal rulemaking process reflects the principles of the Enlightenment and our Constitution. It provides for consultation with lower levels of government (and other stakeholders), while the OMB review recognizes the importance of a strong, central government.
- The Federal rulemaking process has nine steps. Internal processes will vary from agency to agency, but the basic steps, which are outlined in the Administrative Procedure Act, are the same.
- The remainder of this lesson discusses EPA's procedures in each of these steps.



- EPA may initiate a rulemaking for a number of reasons. In some cases, the decision is made based on external forces. For example:
  - A statute may require that a rulemaking be undertaken;
  - EPA may be acting on the basis of a recommendation from an outside group; e.g., the National Academy of Sciences may recommend an action in a report;
  - EPA may be responding to a rulemaking petition. For example, RCRA section 7004 allows anyone to petition to the Administrator to promulgate, amend, or appeal any RCRA regulation; or
  - A court decision may require EPA to initiate a rulemaking.
- EPA may also initiate a rulemaking action on its own based on:
  - Agency priorities and plans;
  - New science or technology;
  - Awareness of new problems; or
  - Regulatory reviews.



- Pre-rulemaking actions are intended to help EPA determine whether it should initiate a rulemaking. Pre-rulemakings may include anything that influences or leads to rulemaking, such as an advance notice of proposed rulemaking (ANPRM), significant studies or analyses of the possible need for regulatory action, announcement of a periodic review of existing regulations required under section 610 of the Regulatory Flexibility Act, requests for public comment on the need for regulatory action, requests for the public to submit information, or important preregulatory policy proposals.
- Once EPA has decided to initiate a rulemaking action, it must also determine what form the rulemaking action will take. EPA has a number of options. Most frequently, EPA issues a proposed rule, provides for public notice and comment, and issues a final rule.
- APA sections 553(b)(3)(A) and (B) allow agencies to exempt rules from notice and comment requirements if: (A) the rules are interpretative, general statements of policy, or rules of agency organization, procedure, or practice; or (B) the agency for good cause finds that it would be impracticable, unnecessary or contrary to the public interest; for example, if health concerns must be immediately addressed. This authority allows EPA to issue:
  - ***Interim final rules.*** EPA promulgates a rule without the proposal stage. Comments on the rule are accepted after promulgation and the rule is revised if necessary.
  - ***Direct final rules***. EPA promulgates a rule without the proposal stage and rescinds the rule if adverse comments are received after promulgation.

Early Decisions

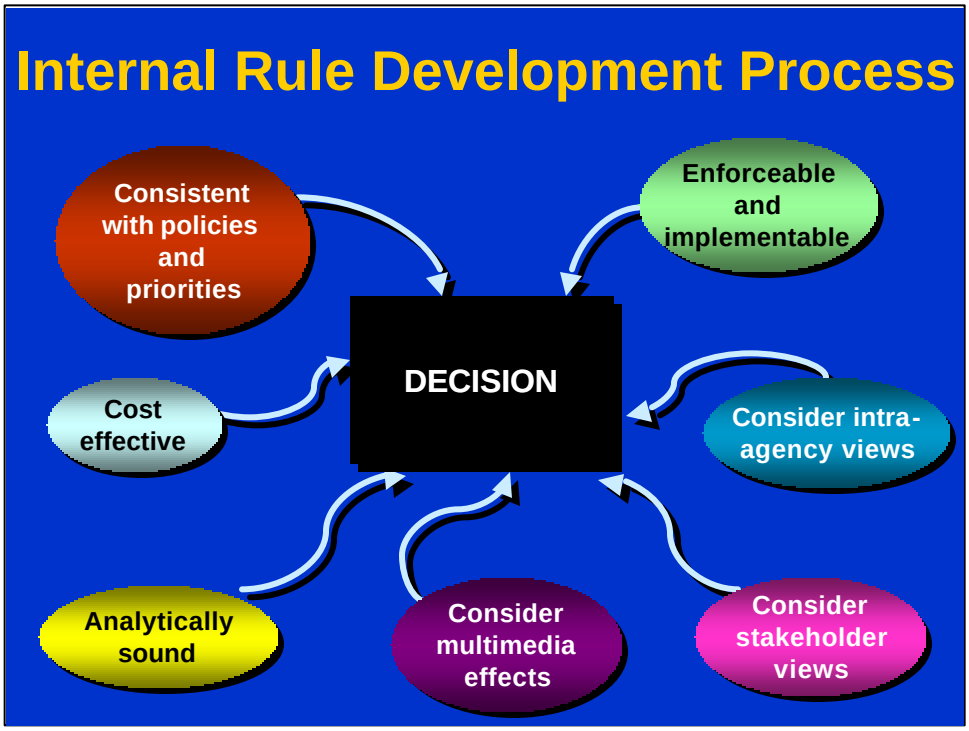
- Agency may decide to undertake a negotiated rulemaking
  - Limited number of stakeholders who are likely to reach a consensus in a reasonable period of time
  - Available agency resources to support the process
  - Commitment to use the consensus as the basis for the proposed rule

- The Negotiated Rulemaking Act (5 U.S.C. 561 *et seq.*) allows an agency to decide to use a negotiated rulemaking to develop a proposed rule, if the head of the agency determines that is in the public interest. In making such a determination, the head of the agency considers whether:
  - There is a need for a rule;
  - There are a limited number of identifiable interests that will be significantly affected by the rule;
  - There is a reasonable likelihood that a committee can be convened with a balanced representation of persons who can adequately represent stakeholder interests identified and are willing to negotiate in good faith to reach a consensus on the proposed rule;
  - There is a reasonable likelihood that a committee will reach a consensus on the proposed rule within a fixed period of time;
  - The negotiated rulemaking procedure will not unreasonably delay the notice of proposed rulemaking and the issuance of the final rule;
  - The agency has adequate resources and is willing to commit them, including technical assistance, to the committee; and
  - The agency, to the maximum extent possible consistent with the legal obligations of the agency, will use the consensus of the committee as the basis for the rule proposed by the agency for notice and comment.
- EPA used a negotiated rulemaking (Reg. Neg.) process to address public health concerns associated with disinfectants, disinfection byproducts, and microbial pathogens in drinking water. This resulted in development of the Interim Enhanced Surface Water Treatment Rule.

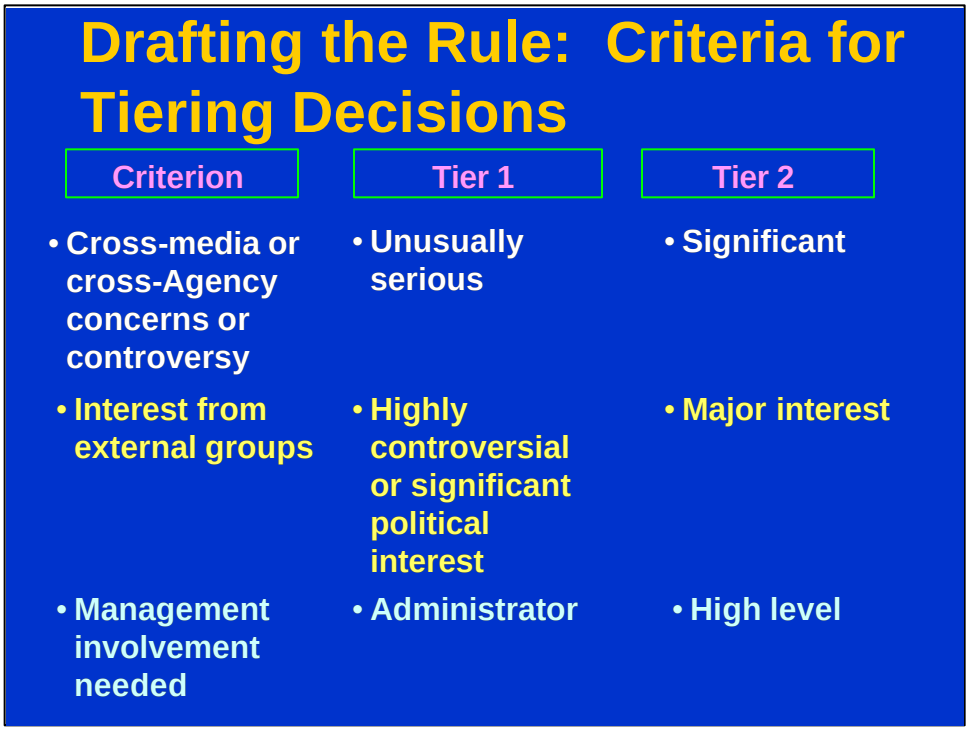
Drafting the Rule

- Collect and analyze information
- Develop regulatory options in accordance with statutory requirements
- Select proposed option

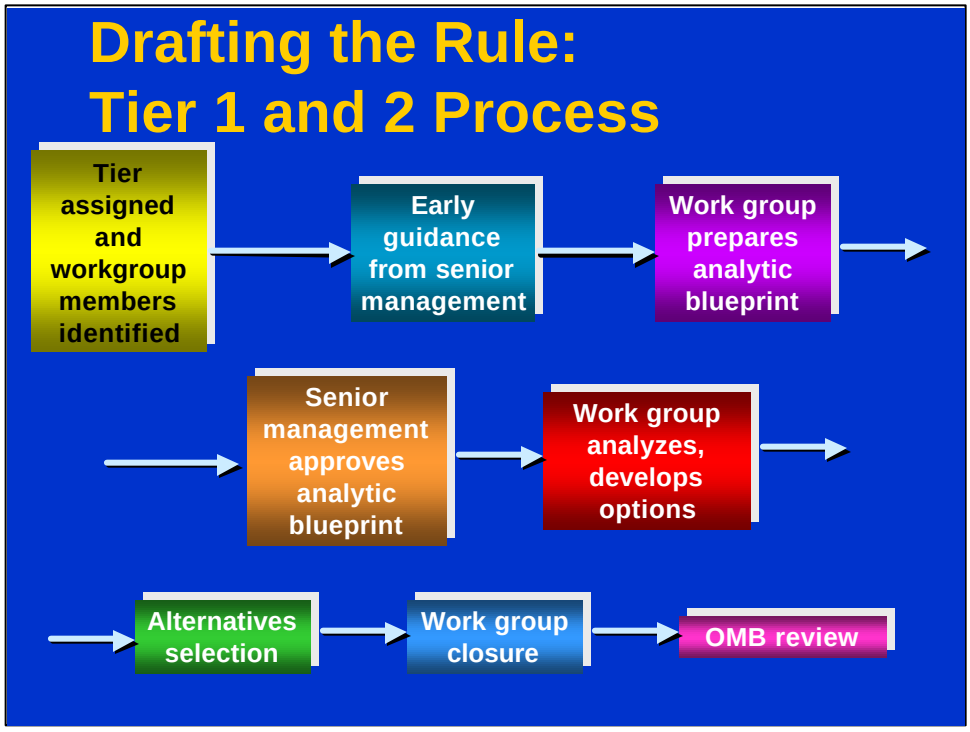
- During this stage, EPA develops the proposed rule. EPA analyzes all the scientific, technical and economic information it has at its disposal in order to develop technically sound regulatory options. EPA may conduct surveys or studies to collect additional information. EPA also considers the potential social, economic, policy or other effects of the options and weighs them in making its decisions.
- Different statutes have different requirements for setting standards. For example, SDWA requires the Administrator to do the following in developing National Primary Drinking Water Regulations:
  - Use "the best available, peer-reviewed science" (§1412(b)(3)(A));
  - Set each maximum contaminant limit at the level at which there are "no known or anticipated adverse [health] effects" and which provides an "adequate margin of safety" (§1412(b)(4)(A)); and
  - "Promulgate a maximum contaminant level that maximizes health risk reduction benefits at a cost that is justified by the benefits." (§1412(b)(6)(A)). This was a significant change made in the 1996 Amendments, allowing for the first time under SDWA the cost of compliance to be an explicit consideration is setting MCLs.
- Under the Clean Water Act effluent limitations for point sources other than publicly owned treatment works must require the "best practicable control technology currently available." (§301(b)(1)(A)) For certain specified pollutants, effluent limitations must require the "best available technology economically achievable." (§301(b)(2)(A)) Even within a statute, the requirements for setting standards may differ.



- The process outlined in the APA applies to rulemaking activities governmentwide. In addition, government agencies establish their own internal processes.
- EPA's rulemaking process is designed to ensure that rules:
  - Are consistent with legal requirements, national policies, and the Administrator's priorities;
  - Achieve environmental objectives cost-effectively;
  - Are based on sound economic, scientific, legal, political and technical analyses;
  - Consider multimedia effects;
  - Are enforceable, implementable, timely, clear and concise; and
  - Reflect consideration of the views of groups within and outside of the Agency.



- The Agency's process is based on assigning rulemaking actions to one of three "tiers" based on the nature of the issues raised by the action and the level of interaction across the Agency and with the Administrator's office that is required to ensure production of a quality rule.
- **Tier 1 – Administrator's Priority Actions**. This tier includes those few actions that require the ongoing involvement of the Administrator's office and extensive cross-Agency involvement. Tier 1 actions are developed by a cross-Agency work group led by a manager or senior staff. Cross-Agency decisions are required at four key stages in the process: early guidance from management, analytic blueprint, selection of alternatives, and work group closure.
- **Tier 2 – Cross-Agency Actions**. These actions are targeted for extensive cross-media or cross-Agency involvement. Primary decision authority rests with the lead Assistant Administrator (AA) or Regional Administrator (RA). Cross-Agency decisions are required at only two stages in the process: analytic blueprint and work group closure.
- **Tier 3 – Lead Office Delegation**. Actions in this category have little need for cross-Agency participation. A work group may not be needed. For the most part, lead offices have the flexibility to design their own processes, however, they must ensure the amount of cross-Agency consultation and stakeholder participation necessary to produce a quality rule.



- After the appropriate tier is assigned, work group members should be identified. All interested parties should be involved from the earliest stages of the action. A ***Start Action Notice*** requests participation from Agency offices on a work group.
- Depending on the tier, the Administrator's office or the lead AA or RA is responsible for providing ***early guidance*** to the work group. The guidance should identify priorities, expectations, and issues of significant concern.
- Work groups meet regularly to keep abreast of issues, make decisions, review work products, and request assistance. If issues can not be resolved in the work group, members are responsible for elevating them for resolution by senior managers.
- One of the first tasks of the work group is to develop an ***analytic blueprint***. The analytic blueprint maps out the information that will be available to decision makers to inform their choice among policy options. Analytic blueprints serve an an agreement on the technical approach to support a rule and serve as a guide to the work group. The blueprint must be approved by the Administrator and participating AAs for Tier 1 rules, and by AAs, RAs or Office Directors for Tier 2 rules.
- When the work group has completed sufficient analysis of alternative regulatory options, it will normally select a preferred option as the Agency's most likely direction. Tier 1 actions on ***selection of alternatives*** must be approved by the Administrator and participating AAs. For Tier 2 rules, the lead office has the authority to select the preferred approach or option.
- When the rule and supporting documents are complete, the work group chair will poll the members to see if there is agreement that the package is ready for ***work group closure***. Work group participants are expected to represent the position of their AAs at the work group closure meeting. The work group closure meeting confirms that all issues have been resolved or elevated; the rulemaking package is ready for OMB review; and all Agency and external requirements have been met.
- Following work group closure, the rule follows EPA's procedures for submitting the proposed rule to OMB for review. Work group meetings continue for the final rule; the process repeats itself (minus the preparation of a new blueprint).

- Various Federal statutes and Executive Orders require EPA to consider a number of specific issues, mostly economic or social, in developing regulations. If the rulemaking meets the criteria outlined in the statute or order, EPA generally must perform a specified analysis or consultation to support the regulation.
- The next several slides discuss the statutes and Executive Orders that potentially affect EPA's rulemakings.

Drafting the Rule: Relevant Executive Orders

- E.O. 12866 – Regulatory Planning and Review
- E. O. 13132 – Federalism
- E. O. 12630 – Takings of Private Property

- ***E. O. 12866, Regulatory Planning and Review***, is the most important of the Executive Orders affecting the rulemaking process. It mandates several analyses if the rule is determined to be significant:
  - Has an annual effect on the economy of $100 million or more or has other adverse effects;
  - Creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency;
  - Materially alters the budgetary impact of entitlements, grants, etc.; or
  - Addresses novel legal or policy issues.
- For any rule determined to be significant, the agency must prepare an economic analysis that outlines the need for the action and assesses the potential costs and benefits of the proposed action.
- ***E. O. 13132, Federalism***, requires Federal regulations to grant the maximum policymaking discretion to States, and to ensure that national action to limit such authority is only taken when there is statutory and Constitutional authority for the action and when it is the most appropriate way to address the national action.
- ***E. O. 12630, Takings of Private Property***, requires that an agency proposing to regulate private property use for the protection of public health or safety, must justify the merits of the proposal and estimate the potential cost to the government in the event that a court later determines that the action constituted a taking.

Drafting the Rule: Relevant Executive Orders

- E. O. 13175 – Indian Tribal Governments
  - EPA is developing implementation guidance
  - Consult with appropriate staff to determine potential impacts
  - Be sensitive to unique role of the Tribes

- ***E. O. 13175, Consultation and Coordination with Indian Tribal Governments***, requires consultation with Tribal representatives and a summary of Tribal concerns, if a rule affects Tribal governments. EPA is developing implementation guidance.
- Until the guidance is complete, Regulatory Steering Committee representatives, Regional Regulatory Contacts, and Office of General or Regional Counsel attorneys can provide assistance in determining whether an action has Tribal implications and, if so, what activities must be undertaken to ensure compliance with this E. O. Determinations and rationales regarding whether a rule, policy statement or guidance document has Tribal implications depend to a large degree on the particular action and program involved.
- Although E. O. 13175 is worded similarly to E. O. 13132 (Federalism), there are key differences in interpretation and application. For example, under Federalism EPA considers a rule with "substantial compliance costs" to be one that is likely to result in State, local or Tribal governmental expenditures of $100 million or more in any one year or that imposes costs equal to or exceeding 1 percent of the annual revenues of affected small governments. These criteria cannot be applied to Tribes. E. O. 13175 is likely to consider substantial compliance costs to be significantly less than $100 million. In addition, Tribal revenues likely are not an appropriate base against which to measure impacts.
- When considering impacts on Tribes, it is important to remember that Tribes are sovereign nations within the United States. This gives Tribal governments a role that is different from the States. In addition, actions taken in areas adjacent to or upstream from Indian country can have serious and significant impacts on Indian country. All potential impacts should be carefully considered, including those on Indian sacred sites or cultural practices. The American Indian Environmental Office can help to ensure that potential impacts are not inadvertently overlooked. The AIEO Director must certify rules with Tribal impacts.

Drafting the Rule: Relevant Executive Orders

- E. O. 13045 – Protection of Children from Safety and Environmental Health Risks
- E. O. 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations
- E. O. 12988 – Civil Justice Reform
- E. O. 13211 – Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

- ***E. O. 13045, Protection of Children from Environmental Health Risks and Safety Risks***, requires that, for any regulatory action that is "significant" under E. O. 12866, the agency must evaluate the health and safety effects of the planned regulation on children, and explain why the planned regulation is preferable to other alternatives considered by the agency.
- ***E. O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations***. Environmental justice is a concept to ensure that minority and low-income populations in the U.S. are not disproportionately exposed to high and adverse human health effects resulting from environmental programs, policies or activities. EPA includes in its preambles a statement summarizing outreach, public participation efforts, and environmental justice concerns raised during the public comment period, and an explanation in the final rule of how these issues were handled.
- ***E. O. 12988, Civil Justice Reform***, establishes requirements for regulations in order to improve regulatory drafting to reduce needless litigation.
- ***E. O. 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,*** requires that, for any regulatory action that is "significant" under E. O. 12866, the agency must prepare a Statement of Energy Effects and submit it to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget. The Statement of Energy Effects must describe in detail any adverse effects on energy supply, distribution, and use, and reasonable alternatives to the action with adverse energy effects and the expected effects of such alternatives on energy supply, distribution, and use.

Drafting the Rule: Relevant Statutes

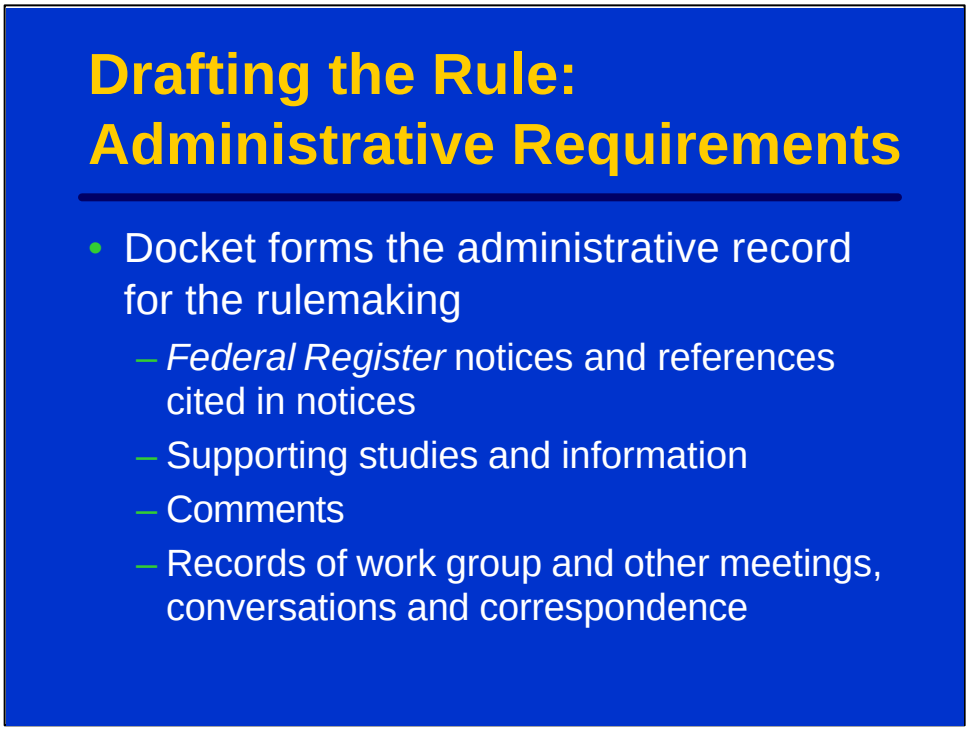
- Regulatory Flexibility Act and Small Business Regulatory Enforcement Fairness Act
- Congressional Review Act
- Paperwork Reduction Act
- Unfunded Mandates Reform Act

- The ***Regulatory Flexibility Act*** (RFA) (5 U.S.C. 601 *et seq*.) imposes analytical and procedural requirements. The analytical requirements call for EPA to carefully consider the economic impacts rules will have on small entities. The procedural requirements are intended to ensure that small entities have a voice when EPA makes policy determinations in shaping its rules.
- The ***Small Business Regulatory Enforcement Fairness Act*** (SBREFA) (5 U.S.C. 801 *et seq*.) amended the RFA to require EPA to convene a small business panel prior to proposing any rule that will have a significant economic impact on a substantial number of small entities.
- Subtitle E of SBREFA enacted the ***Congressional Review Act*** (CRA), which establishes a mechanism to expedite Congressional review of agency rules. Before a rule subject to the CRA can take effect (the CRA exempts certain administrative rules and only applies to final rules), an agency must submit certain information to each house of Congress and to the Comptroller General of the U.S.
- The ***Paperwork Reduction Act*** (44 U.S.C. 3501 *et seq.*) requires agencies to estimate the "burden" imposed (i.e., hours and dollars) on regulated entities due to recordkeeping and reporting requirements. EPA prepares and submits to the Office of Management and Budget Information Collection Requests (ICRs) discussing the requirements and estimating burden.
- The ***Unfunded Mandates Reform Act*** (2 U.S.C. 1501 *et seq*.) requires that, for any rule considered significant under E.O. 12866 (with impacts to governments and to the private sector considered separately), Federal agencies prepare and consider estimates of the budgetary impact of regulations containing Federal mandates on State, local, and Tribal governments and the private sector before adopting such regulations, and ensure that small governments are given special consideration in that process.

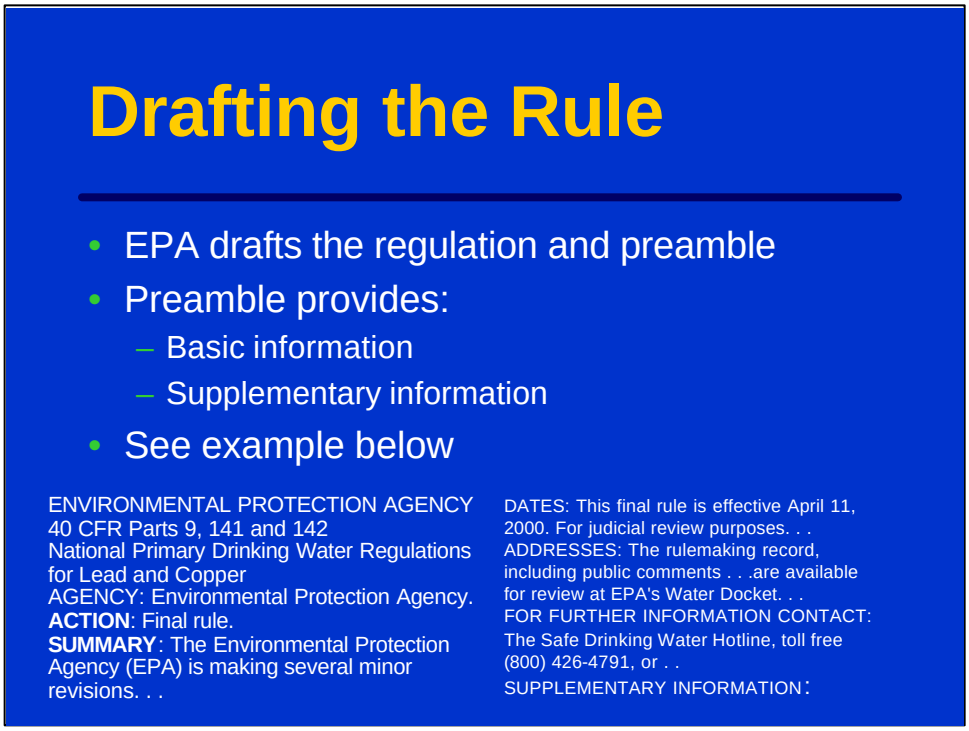
Drafting the Rule: Relevant Statutes

- National Environmental Policy Act
- Federal Advisory Committee Act
- National Technology Transfer and Advancement Act

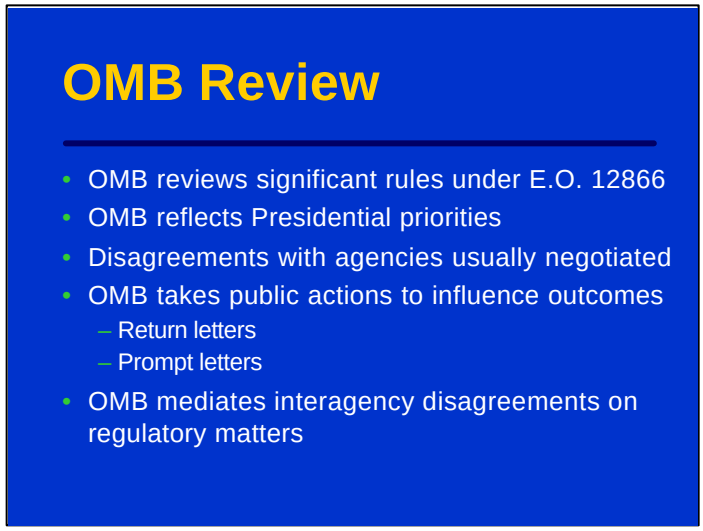
- When an agency proposes an action that has the potential for adverse environmental impacts, the ***National Environmental Policy Act*** (NEPA) requires the agency to prepare an Environmental Impact Statement or Environmental Assessment, depending on the value or economic impact of the action and the anticipated significance of environmental or other relevant impacts (such as the impact on areas with cultural, archeological, or historic significance).
- The ***Federal Advisory Committee Act*** (FACA) (5 U.S.C. 1 *et seq.*) regulates the formation and operation of advisory committees established by Federal agencies to provide advice. Negotiated rulemaking committees, among others, must comply with the provisions of FACA.
    - In 1996, EPA set up a Federal Advisory Committee, composed of members from a wide spectrum of interests ranging from the environmental and agricultural communities to state and local governments. The committee's objective was to recommend ways to improve the effectiveness and efficiency of State, Territorial, Tribal, and EPA TMDL programs.
    - On the SDWA side, EPA works with its stakeholders through the National Drinking Water Advisory Council (NDWAC). The Council, comprising members of the general public, state and local agencies, and private groups concerned with safe drinking water, advises the EPA Administrator on everything that the Agency does relating to drinking water.
- The ***National Technology Transfer and Advancement Act*** (15 U.S.C. 272 *et seq*.) requires that Federal agencies adopt private sector standards, particularly those developed by standards-setting organizations, wherever possible instead of creating proprietary, non-consensus standards.



- ***Dockets*** serve as repositories of information related to the rulemaking process. Each time a rulemaking is announced a public docket is established with an assigned tracking number to accumulate materials throughout the rulemaking process.
- This process, required by the APA, creates a public record that Federal judges can review if a regulation is challenged through litigation. Only those materials that are in the docket can be used to justify the Agency's actions and decisions. Therefore, it is very important that a rule manager be thorough in including materials in the docket.
- The Water Docket contains copies of materials the Agency uses in the proposal and promulgation of regulations, primarily under the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA). Such materials include *Federal Register* notices; references cited in *Federal Register* notices; supporting scientific and technical studies and information on topics such as health effects, analytical methods, treatment technology, and economic and environmental impacts; development documents; ICRs; public comments and comment/response documents; records of work group and other meetings, conversations and correspondence; and other background information.
- Docket materials are organized by docket number and a docket outline. However, records before 1998 are organized by program office and the title of the *Federal Register* notice. For each docket number there is an index that lists all of the material in that docket record.
- The Water Docket is currently located in Room EB57 at 401 M St., S.W. Washington, D.C. The Docket is open to the public on all Federal government work days from 9 a.m. until 4 p.m. by appointment.



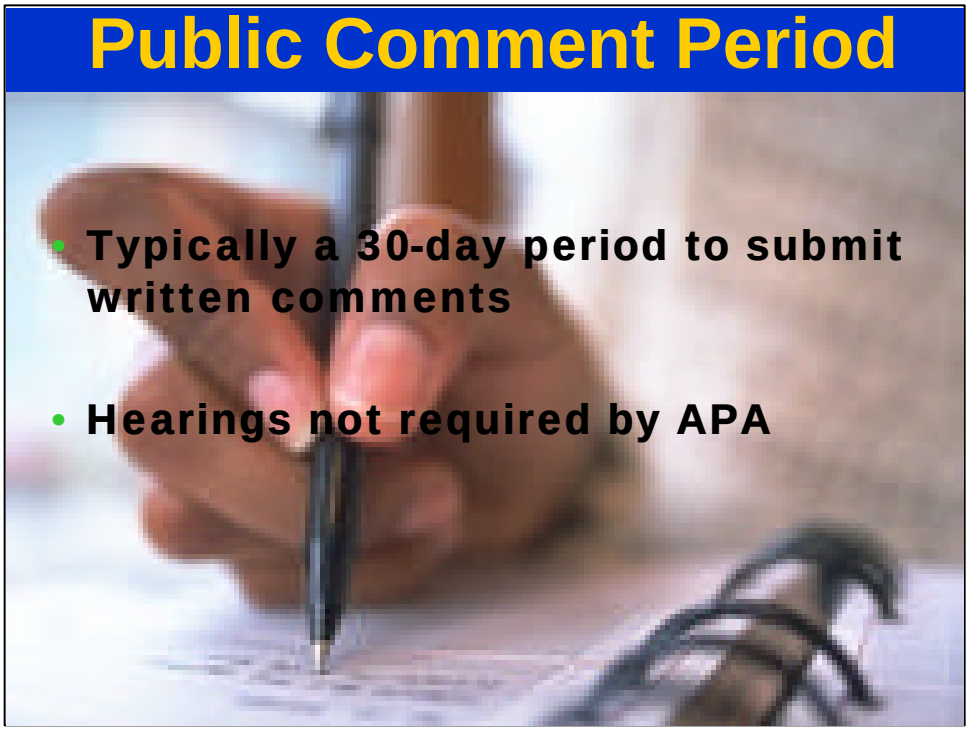
- After EPA reviews all the available information and analyzes regulatory options, it drafts a regulation and preamble.
- The ***preamble*** explains the basis and purpose of the regulation, but contains no regulatory text. It provides basic information such as the agency taking the action; what the action is (e.g., proposed or final rule); a brief summary of the action; applicable dates; and contact information.
- The preamble also provides supplementary information. For example, it includes a regulatory history of the rulemaking proceeding. It provides background information and detail necessary to give adequate notice of the issues to be commented on. The supplementary information section also provides additional information required by law, Executive Order, or agency policy.
- The format for the rule and preamble is established by the Office of the Federal Register.



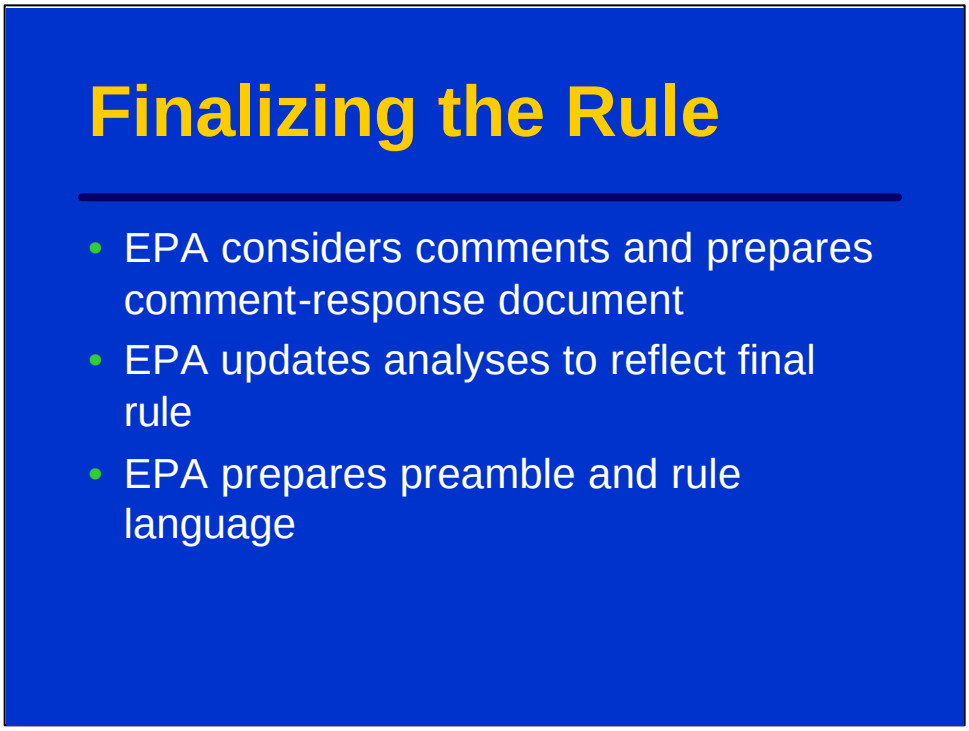
- If a proposed or final rule is significant (under E. O. 12866), it must be cleared by OMB before it is published in the *Federal Register*. The ***Office of Information and Regulatory Affairs*** (OIRA), an office within OMB, reviews agency draft regulations before publication to ensure agency compliance with E.O. 12866. OIRA also reviews collections of information under the Paperwork Reduction Act, which stipulates that every Federal agency must obtain approval from the OMB before collecting the same or similar information from 10 or more members of the public. If the Environmental Protection Agency decides to gather information, the appropriate program office must prepare an ***Information Collection Request*** (ICR).
- Every President since Richard Nixon has insisted on some type of centralized management of Federal regulations. The only regulators OMB does not oversee are those who are considered independent of the President. These independent regulators cover issues such as the money supply, nuclear plant safety, and certain antitrust matters.
- Presidents use the powers of OMB regarding agency action to advance Administration priorities and policy directives. President Reagan pursued an agenda of regulatory relief. President Clinton used centralized review to promote a wide range of social objectives such as children's health. As OMB is within the Executive Office of the President, its actions necessarily reflect Presidential priorities.
- President George W. Bush is promoting an agenda of improving regulatory science and analysis. OMB offers more deferential review of proposals that agencies have voluntarily subjected to independent peer review.
- In most cases, an agency and OMB negotiate resolutions to disagreements. This may involve providing additional documentation to justify an agency position or changing an agency position to one that seems better supported by the documentation. However, OMB also issues public "***return letters***" when it believes an agency has conducted a poor quality analysis. EPA recently received a return letter for its proposed water quality standards for Indian Country (see Handout # V-1). OMB believed that there was insufficient analysis of the costs and benefits and that the Federalism implications (i.e., impacts on State discretion) were not fully considered.
- Under George W. Bush, OMB has also begun to issue "***prompt letters***." These are public letters intended to stimulate agency and public deliberation in areas in which OMB believes agencies might improve regulatory policies. EPA recently received a prompt letter (see Handout # V-2) encouraging targeted research to better understand the health benefits of reducing different types of particulate pollution from power plants, industry and motor vehicles.
- OMB also exercises its authority when agencies disagree about regulations. For example, OMB is working with EPA and the Department of Energy to resolve different views about how new clean air regulations

Agency Signature and Publication

- After OMB approves of the proposed rule, EPA prepares it for publication in the *Federal Register*.
- The *Federal Register* is a legal newspaper published every business day by the National Archives and Records Administration (NARA). The *Federal Register* informs citizens of their rights and obligations and provides access to a wide range of Federal benefits and opportunities for funding. NARA's Office of the Federal Register prepares the *Federal Register* for publication in partnership with the Government Printing Office (GPO), which distributes it in paper, on microfiche and on the World Wide Web.
- Each issue of the *Federal Register* is organized into four categories:
  - Presidential documents, including Executive Orders and proclamations;
  - Rules and regulations, including policy statements and interpretations of rules;
  - Proposed rules, including petitions for rulemaking and other advance proposals; and
  - Notices, including scheduled hearings and meetings open to the public, grant applications, and administrative orders.
- EPA's *Federal Register* notices can be found online at http://www.epa.gov/fedrgstr/.



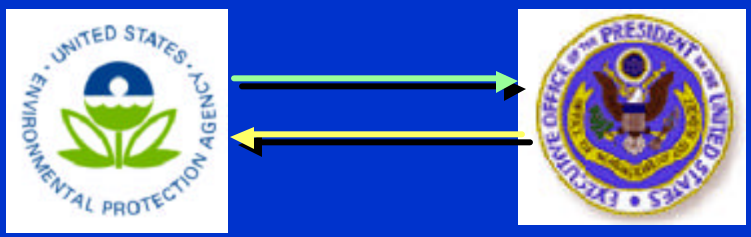
- The Administrative Procedure Act requires that the public be afforded an opportunity to review and comment in writing on proposed regulations (see slide V-7). Typically, the public comment period lasts 30 days, however, the length of the comment period and whether a hearing is held may also be affected by statute or agency policy.



- EPA must consider and respond to all the comments it receives on a proposed rule. This does not mean that EPA must adopt every comment; rather, it must explain its thoughts about every comment. EPA documents its responses in a comment-response (or response to comments) document.
- EPA considers the comments and any new information it may have developed and makes final decisions about the content of the rule. All the supporting analyses must also be updated to reflect the final rule.
- In addition to providing basic information about the rule, the preamble to the final rule should include:
  - A summary of public comments and the agency's response to the comments;
  - A discussion of the final rule; and
  - A summary of the revised analyses.

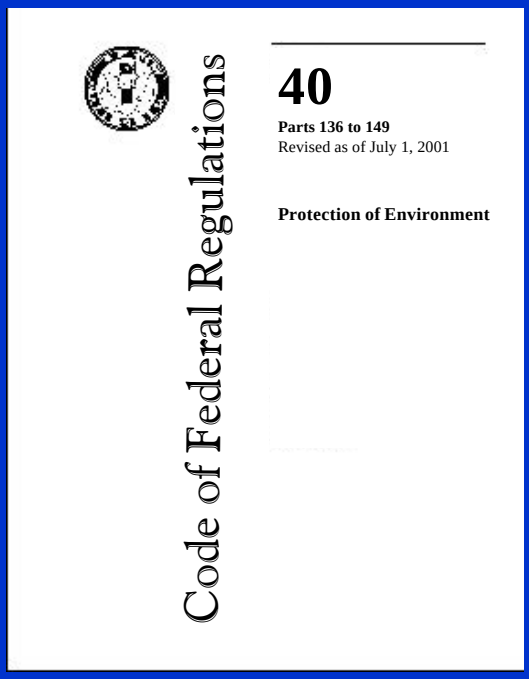
OMB Review

- As before, OMB reviews the final rule
- The agency and OMB negotiate resolutions to disagreements



Agency Signature and Publication

- Final rules are codified annually in the Code of Federal Regulations



- After OMB approval, EPA once again prepares the regulatory package for publication in the *Federal Register*.
- Final rules are codified in the Code of Federal Regulations (CFR), which is an annual codification of the general and permanent rules published in the *Federal Register* by the executive departments and agencies of the Federal government. The CFR is divided into 50 titles which represent broad areas subject to Federal regulation. EPA's regulations are found in Title 40 (40 CFR), Protection of the Environment.
- Each Title is divided into chapters that usually bear the name of the issuing agency. Each chapter is divided into parts covering specific regulatory areas; each part is then divided into sections -- the basic unit of the CFR. The purpose of the CFR is to present the official and complete text of agency regulations in one organized publication and to provide a comprehensive and convenient reference for all those who may need to know the text of general and permanent Federal regulations.
- The CFR is keyed to and kept up-to-date by the daily *Federal Register*. These two publications must be used together to determine the latest version of any given rule. When a Federal agency publishes a regulation in the *Federal Register*, that regulation usually is an amendment to the existing CFR in the form of a change, an addition, or a removal.
- 40 CFR can be accessed online at http://www.epa.gov/epacfr40/chapt-I.info/chi-toc.htm. Online access to the entire CFR is through the Government Printing Office at http://www.access.gpo.gov/ecfr/.

Review

- Do you have the answer?

- The instructor passes out strips of paper containing answers and questions. One person randomly selected starts by reading the question on his or her strip. The person with the answer responds and then reads his or her question. This process continues until you arrive back at the first person.

- This last section of the course will discuss four implementation tools common to the CWA and SDWA:
  - Primacy and authorization;
  - Enforcement;
  - Permitting; and
  - Policy and guidance.

Primacy and Authorization

What Are Primacy and Authorization?

- Rulemaking process to delegate EPA authority to the States and Tribes

- Consistent with the principles of the Enlightenment and the provisions of our Constitution, both SDWA and the CWA envision the States and Tribes as the primary implementers of the statutes. While EPA sets national standards, States and Tribes – being closer to the local situations – are the appropriate group to implement and enforce the requirements under the statutes.
- Conferring ***primacy*** (the term used in SDWA) or State or Tribal ***authorization*** (the term used in the CWA) is a rulemaking process through which EPA delegates to a State or Tribe the primary responsibility for implementing and enforcing a statute in lieu of EPA.
- Primacy/authorization ensures national consistency and minimum standards while providing flexibility to States and Tribes in implementing rules. Primacy/ authorized State and Tribal programs must always be at least as stringent as the Federal requirements, but States and Tribes can adopt more stringent provisions as well.

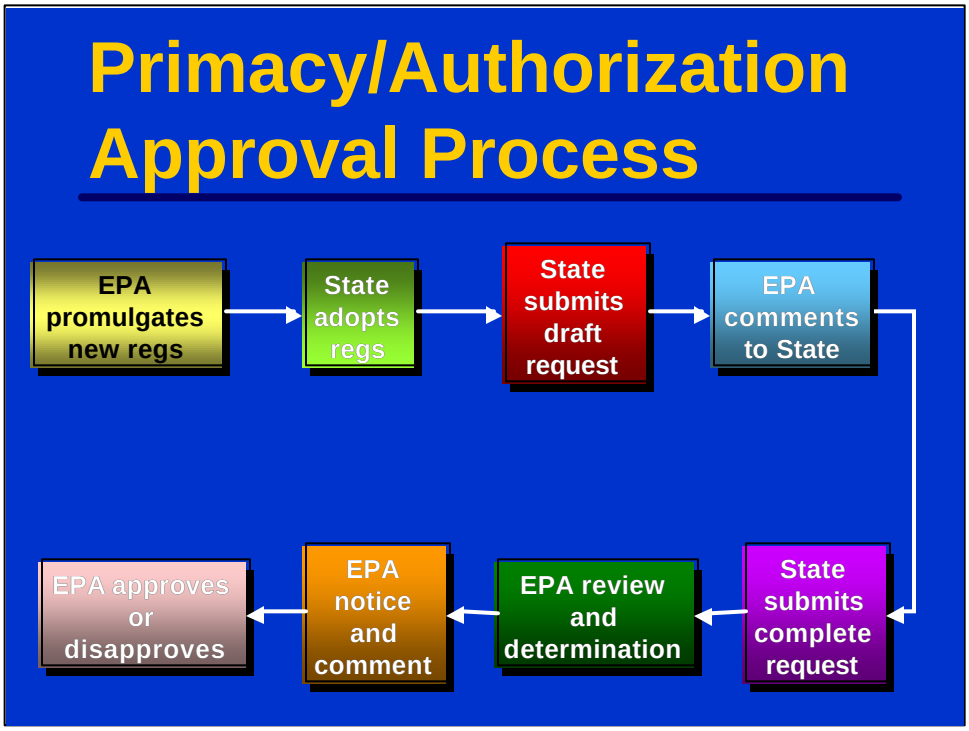
- Primacy/authorization places huge responsibilities on State governments; but, there are a number of reasons why States seek primacy/authorization:
  - Many States prefer to have the primary role in issuing permits and taking enforcement actions. They are closer to the situations at hand, know the involved parties better, and have a better understanding of local values and circumstances.
  - While the regulated community prefers one set of national rules, they often prefer to deal with the States rather than EPA on permitting and enforcement issues. They, too, believe that the States better understand and can deal with their issues more appropriately.
  - States can tailor the standards, for example, by making certain aspects more stringent, to meet local conditions.
  - States enforce their own regulations, not the Federal regulations.
- The statutes provide for grants to States to operate their primacy/authorized programs. The amounts awarded are substantial, and States must also contribute their own funds. Many States contribute above the required minimum amounts.
  - Under SDWA, States receive PWSS money only if they have primacy.
  - Under the CWA, States are allotted money by formula.

- The 50 U. S. States are eligible to receive primacy/authorization. SDWA and the CWA also define the District of Columbia, Guam, Puerto Rico, the Northern Mariana Islands, the Virgin Islands, American Samoa, and the Trust Territory of the Pacific Islands as States for purposes of primacy/authorization.
- SDWA and the CWA allow the Administrator to treat Tribes as States. This means that EPA may grant authorization/primacy to a Federally-recognized Tribe to administer the relevant programs within its jurisdiction.

Tribal Eligibility Criteria

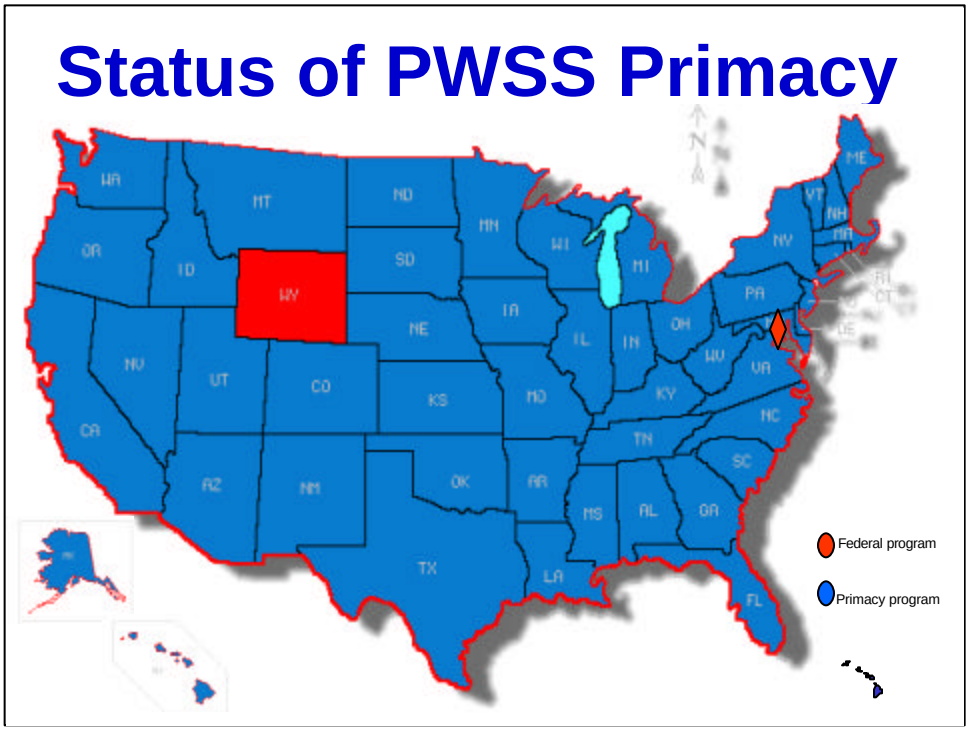
Program	TAS	Approved
Water Quality Standards	23	20
NPDES	0	0
Wetlands	0	0
UIC	0 (1 is close)	0
PWSS	3 (1 is close)	1

- For Tribes to obtain primacy/authorization or to qualify for some of EPA's major grant programs, they generally must go through a process called "treatment in the same manner as a State" (TAS). TAS was first put in place through the 1986 and 1987 amendments to SDWA and the CWA, respectively. These amendments called on the Agency to develop a process by which Tribes could apply for grants and program authority. EPA established a TAS process for eligibility under various programs according to the criteria in SDWA and the CWA. Generally, in order to quality a Tribe must:
  - Be Federally recognized;
  - Have or be able to exercise substantial governmental powers;
  - Have or have been delegated jurisdiction over the area in question; and
  - Be reasonably expected to have the financial, physical, and human resource capability to effectively implement a program.
- In the initial years after establishing the TAS process, many Tribes and EPA staff found it to be overly burdensome. EPA has increasingly improved its own capacity to help Tribes meet those eligibility requirements and, in 1994, EPA developed the TAS Simplification Rule (59 *FR* 33469). Under this rule, once a Tribe has been deemed eligible for one EPA program, it need only establish that it has jurisdiction and capability for each subsequent program. This is required because each program may require different skills and activities to provide protection that meets the requirements of the specific programs.
- Often EPA will continue to enforce on Indian lands even after a Tribe is authorized, if the Tribe does not have financial resources to defend itself in a lawsuit.

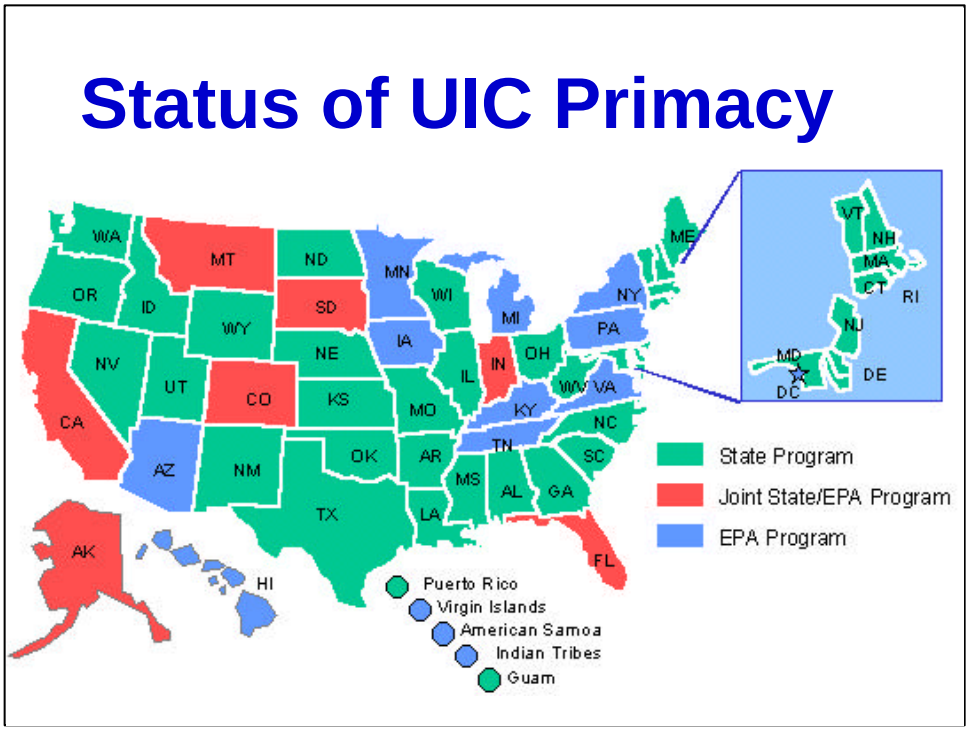


- The basic process for a State or Tribe to apply for and receive approval for its program is the same in all EPA programs. Since it is a rulemaking process, it is governed by the rulemaking requirements in the Administrative Procedure Act.
- A State submits an application that includes a letter from the Governor (or his or her designee) requesting review and approval; a Memorandum of Agreement specifying the terms of the EPA-State relationship; a Program Description that describes how the State plans to implement the provisions it is applying for; an Attorney General's Statement explaining the State's legal authority for the provisions it is applying for; and a copy of the underlying State laws and regulations.
- The process includes a public review and comment period and may include a public hearing. EPA's draft and final determinations about approval or disapproval are published in the *Federal Register*.
- Primacy/authorization is a status that must be maintained. As EPA promulgates new regulations, primacy/authorized States must adopt the new requirements under State law and apply for primacy for those requirements. These subsequent program changes are called "program revisions," and they follow a similar approval process.
- In States without primacy or authorization, EPA is the primary permitting and enforcement authority.
- Each program under SDWA and the CWA has specific requirements for approval of primacy/authorization applications. The next few slides will discuss those requirements.

Status of PWSS Primacy

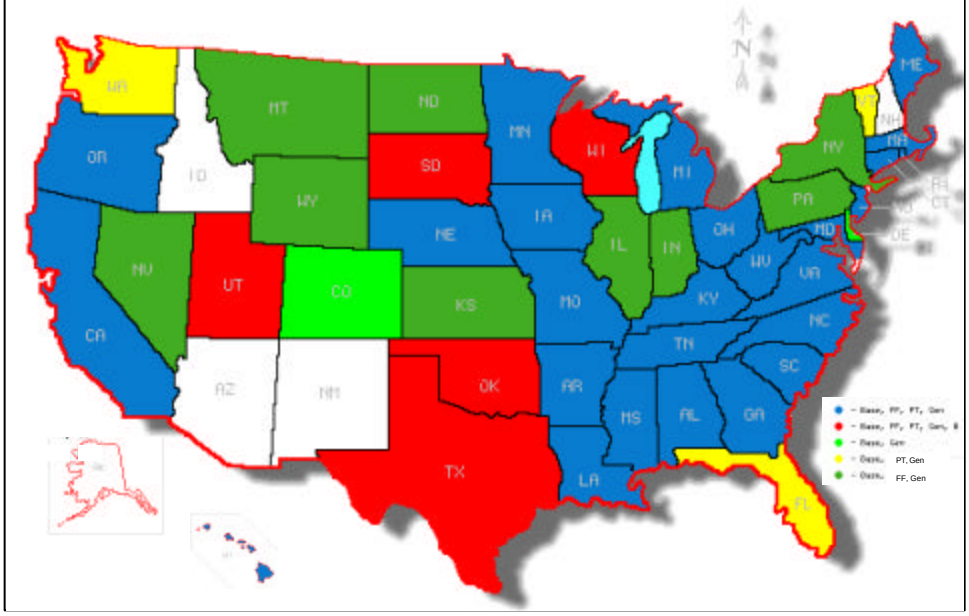


- Currently, all States and Territories, except Wyoming and Washington, D. C., have primacy for the public water system supervision (PWSS) program under SDWA. The Navajo Tribe is the first, and currently only, Tribe to have received primacy.
- The primacy requirements for the public water system supervision program under SDWA are codified in ***Part 142 of the Code of Federal Regulations (CFR)***. They require the States to:
  - Maintain an ***inventory*** of public water systems in the State;
  - Have a program to conduct ***sanitary surveys*** of the systems in the State;
  - Have a program to ***certify laboratories*** that will analyze water samples required by the regulations;
  - Have a certified laboratory available that will serve as the ***State's "principal" lab***;
  - Have a program to ensure that new or modified systems will be capable of complying with State primary drinking water regulations (***plan review***);
  - Adopt and implement procedures to ***enforce*** State regulations;
  - Have adequate ***enforcement authority*** to compel water systems to comply with NPDWRs, including the authority to apply drinking water regulations to PWSs; sue in court to enjoin threatened or continuing violations; enter and inspect water system facilities; require systems to keep records and release them to the State; require systems to notify the public of any system violation of the State requirements; assess civil or criminal penalties for violations of the State Primary Drinking Water Regulations and Public Notification requirements; and assess administrative penalties for violations;
  - Have adequate recordkeeping and reporting requirements;
  - Have ***variance and exemption requirements*** as stringent as EPA's, if the State chooses to allow variances or exemptions;
  - Have an ***adequate plan*** to provide for safe drinking water in ***emergencies*** like natural disasters; and
  - Define a PWS to include systems that provide water for human consumption through "other constructed conveyances" for consistency with the 1996 Amendments to section 1401(4).

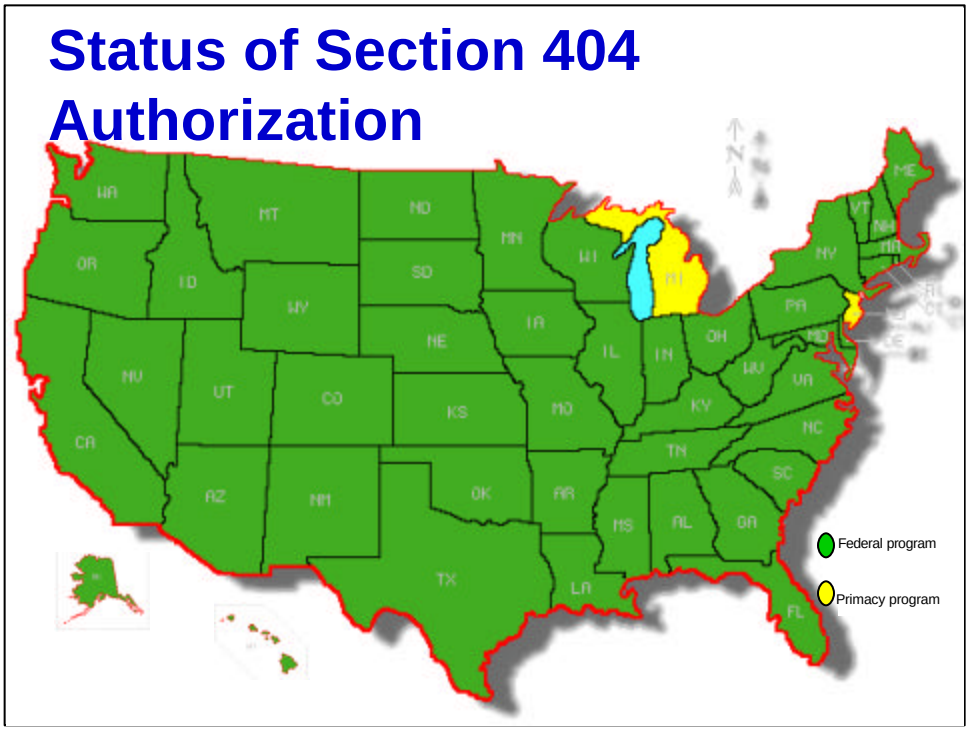


- ***Underground injection*** is regulated under SDWA. States have the option of applying for primacy for all classes of underground injection wells; only oil and gas related wells (Class II wells); or all wells except oil and gas related wells (Classes I, III, IV and V). As of June 2002, EPA had delegated primacy for all well classes to 34 States; it shares responsibility in six States; and implements a program for all well classes in ten States. Three territories also have primacy. No Tribes have received primacy.
- SDWA section 1422 requires States seeking primacy for all wells except oil and gas, to make a showing that its UIC program "meets the requirements of regulations in effect under section 1421."
- SDWA section 1425 requires States seeking primacy for oil and gas wells to demonstrate that the Class II portion of the program meets the requirements of section 1421(b)(1)(A) – (D):
  - Prohibit underground injection not ***authorized by a State permit or rule***;
  - Require permit applicants to demonstrate that they will ***not endanger underground sources of drinking water*** (USDW) and not promulgate any rule that authorizes underground injection that endangers USDWs;
  - Include ***inspection, monitoring, recordkeeping*** and reporting requirements; and
  - ***Apply to Federal agencies*** and any other person injecting on property owned or operated by the U. S.

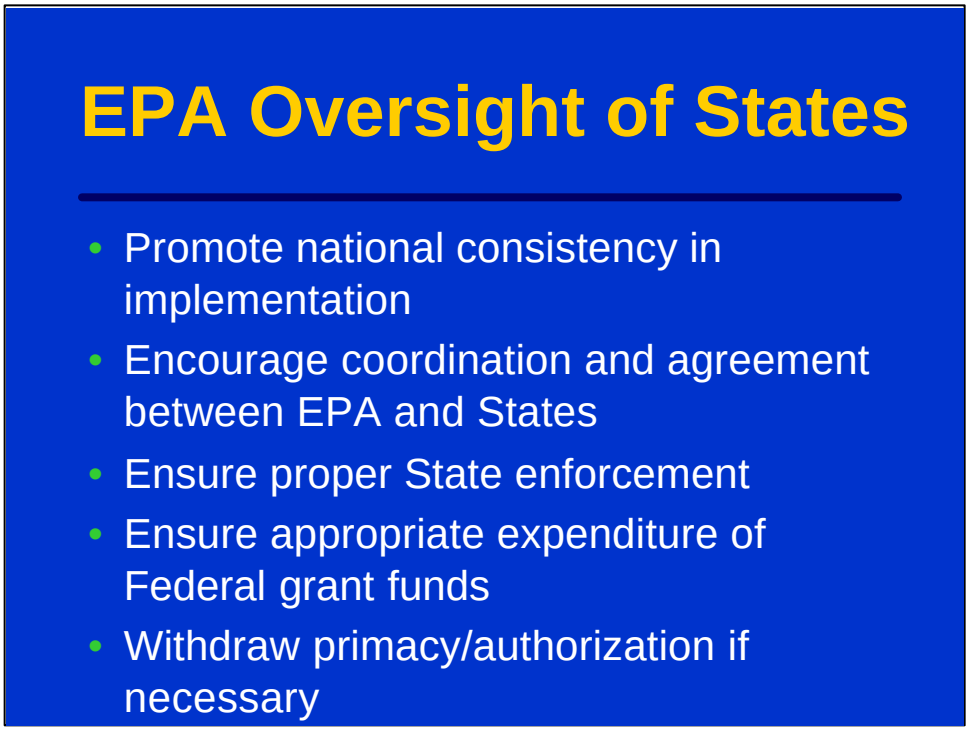
Status of NPDES Authorization



- Under the Clean Water Act's ***National Pollution Discharge Elimination System*** (NPDES) permit program, any discharge of pollutants to waters of the United States must be expressly ***authorized by a valid NPDES permit***.
- The NPDES program consists of ***various components***, including:
  - NPDES base program for municipal and industrial facilities;
  - Federal facilities;
  - General permitting;
  - Pretreatment program; and
  - Biosolids.
- A State ***may receive authorization for one or more*** of the NPDES program components. For example, if a State has not received authorization for Federal facilities, EPA will continue to issue those permits.



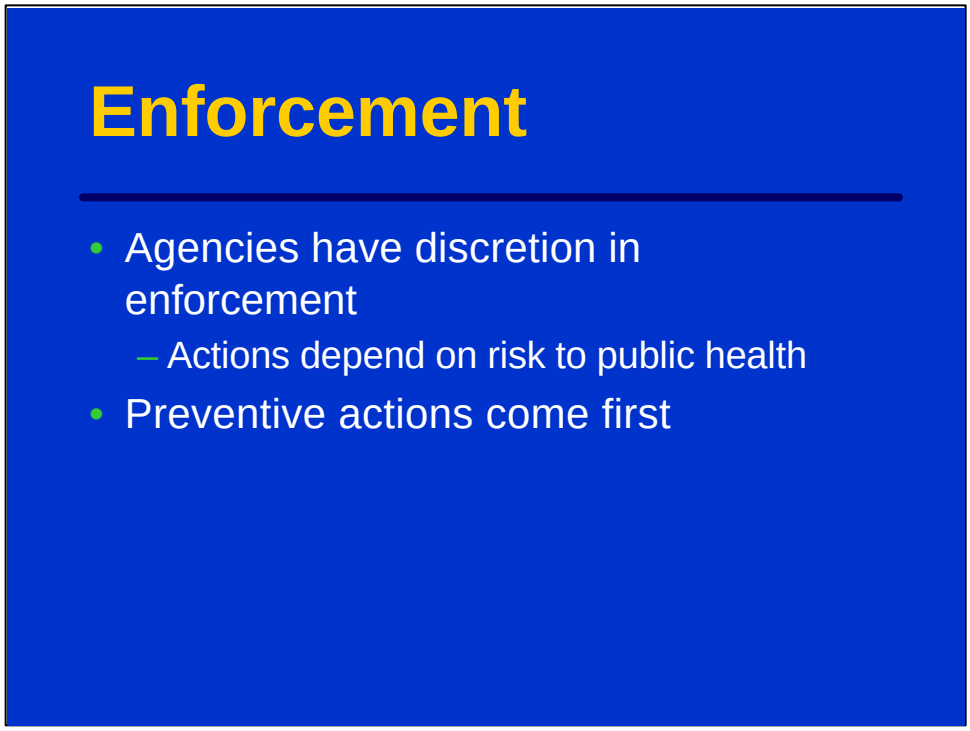
- States and Tribes can assume the ***Federal Section 404 wetlands program*** only in certain ***"nonnavigable" waters***. The U.S. Army Corps of Engineers retains jurisdiction in tidal waters and their adjacent wetlands and navigable waters and their adjacent wetlands. The Corps continues to regulate navigable waters under Section 10 of the Rivers and Harbors Act of 1899.
- When States or Tribes assume administration of the Section 404 program, the Corps no longer processes Section 404 permits in waters under State or Tribal jurisdiction. The State or Tribe assumes responsibility for the program, determines what areas and activities are regulated, processes individual permits for specific proposed activities, and carries out enforcement activities. EPA reviews the program annually to ensure the State or Tribe is operating its program in compliance with requirements of the law and regulations. In addition, for some activities, which generally include larger discharges with serious impacts, EPA and other Federal agencies review the permit application and provide comments to the State or Tribe; the State or Tribe cannot issue a permit over EPA's objection.
- To date, two States, ***Michigan and New Jersey***, have assumed administration of the Federal permit program. Other States and some Tribes are working toward or investigating the possibility of assuming the permit program. Reasons States have expressed for not more actively pursuing assumption of the program include lack of funding, limit of program administration to non-navigable waters, concerns regarding Federal requirements and oversight, availability of alternative mechanisms for State and Tribal wetlands protection, and the controversial nature of regulation of wetlands and other aquatic resources.



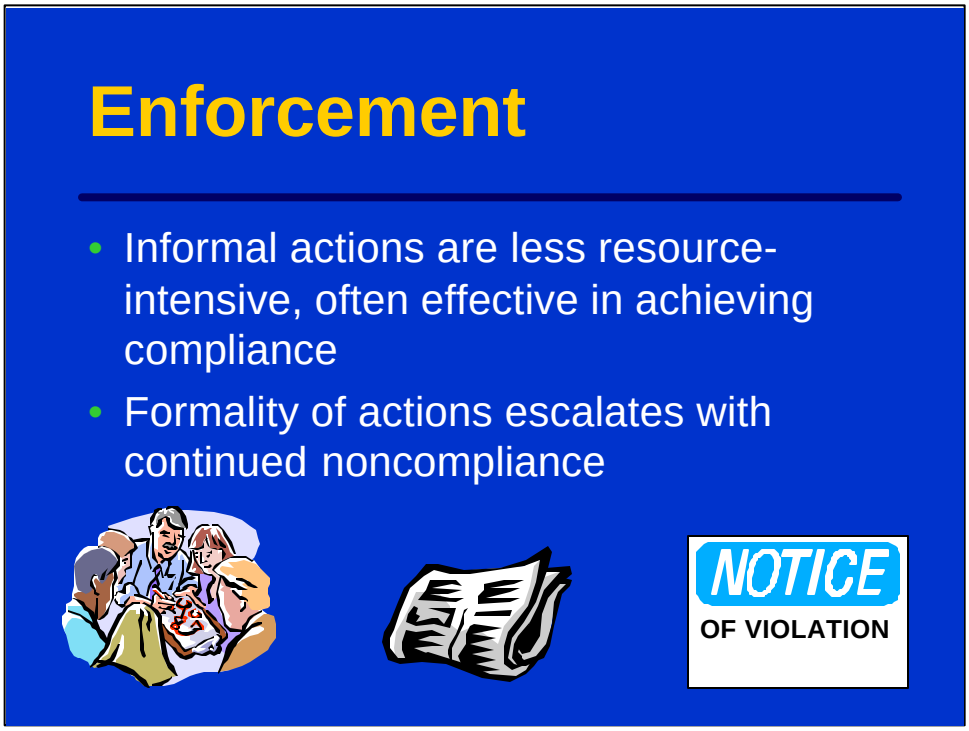
- While primacy/authorized States have the primary responsibility for implementing CWA and SDWA programs, EPA still plays a role by offering ***financial assistance*** to States to help them develop and implement their programs; ***establishing broad national policies***; and ***ensuring that States properly carry out*** their programs.
- Ensuring that States properly implement their primacy/authorized programs is an important EPA responsibility. EPA Regional staff have oversight responsibilities to:
  - Promote national consistency in implementation;
  - Encourage coordination and agreement between EPA and States on technical and management issues;
  - Ensure proper enforcement by the States; and
  - Ensure appropriate expenditure of Federal grant funds.
- Authorized/primacy State programs are continually subject to review. If the EPA Administrator determines that a State's authorized/primacy program no longer complies with the applicable regulatory requirements and the State fails to address the problems appropriately, EPA may start procedures to ***withdraw the State's program***.
- A State program could be considered out of compliance for many reasons; for example, failure to promulgate required regulations; action by a State legislature that leaves a State without adequate legal authority; failure to adequately enforce the regulations, such as not acting on violations or not assessing proper penalties and fines; failing to issue permits or issuing substandard permits; or failure to comply with the terms of its Memorandum of Agreement with EPA.

Enforcing the Statutes

- EPA's water statutes give EPA and primacy States and Tribes the authority to enforce requirements under the statutes. EPA, the States and the Tribes have a number of tools they can use to compel compliance.



- States and Tribes with primacy implement and enforce State (or Tribal) water regulations. EPA enforces the water regulations for States and Tribes without primacy. SDWA and CWA regulations include requirements for State and Tribal enforcement programs.
- At all levels of government, regulatory agencies have discretion in determining what type of enforcement action to take and when to impose penalties.
- The most successful efforts to achieve compliance are often preventive efforts and informal enforcement actions.
- Preventive efforts are aimed at notifying and educating an operator about requirements, and can result in avoiding critical problems. These activities are based on the belief that most people in the regulated community want to do the right thing if they understand how and why it must be done.
- Examples of preventive efforts include:
    - Sanitary surveys of public water systems;
    - Reminder letters for monitoring;
    - Sampling conducted and analyzed by the State;
    - On-site meetings and technical assistance; and
    - Operator certification and training.
- States and Tribes also conduct outreach and education activities to promote understanding of and compliance with their regulations.



- ***Informal enforcement actions*** are a continuation of the philosophy that education and assistance are the most effective means to achieve compliance from willing operators.
- Informal actions are generally taken for minor violations such as failure to monitor or failure to properly collect samples. They are often taken to respond to less serious, paperwork violations.
- Examples of informal actions include:
  - Warning letters explaining initial, minor violations;
  - Notices of violation;
  - On-site meetings and technical assistance; and
  - News releases describing failure to comply (and intended to present a negative public image of the company or facility).
- Continued failure to comply will result in the State or EPA taking more formal enforcement actions.

Enforcement

- Formal enforcement actions
  - Administrative orders and penalties
  - Civil actions
  - Criminal actions

- States and EPA generally reserve their strongest enforcement tools for owners and operators who have not been responsive to enforcement actions, facilities whose violations pose significant public health threats, or facilities with a history of noncompliance.
- EPA and State primacy agencies can issue ***Administrative Orders*** at the agency level. Administrative Orders include an opportunity for a public hearing and may include ***penalties***.
- States may bring ***civil actions*** before a State court, and EPA, through the Department of Justice (DOJ), may bring an action in Federal court. These courts may issue Judicial Decrees that can include penalties. Civil actions require a significant agency effort and are reserved for violators that have serious noncompliance issues.
- EPA (through DOJ) and the States may also bring ***criminal actions*** before a court. Criminal actions must meet the threshold in the applicable statute.
  - SDWA specifies that a UIC violation must be "willful."
  - The CWA has three different levels of criminal action:
    - Negligent violation;
    - Knowing violation; and
    - Knowing endangerment, a knowing violation that places another person in imminent danger of death or serious bodily injury.

- ***Referral to EPA*** is used as a last resort when State resources are insufficient to address the issue or when previous State efforts have not been successful. A State can also refer violations to EPA to be consolidated with ongoing Federal enforcement actions. For example, on April 23, 1994, EPA Region 2 entered into a consent order with the U.S. Department of Energy resolving alleged RCRA violations. Subsequent Federal violations referred to EPA by the New York State Department of Environmental Conservation were also merged into this action. The settlement included a penalty of $63,250 and an agreement to implement two supplemental environmental projects jointly valued at $170,000. EPA can bring an administrative action, as in the case example, or can refer the case to the Department of Justice for civil or criminal action.
- EPA and the State may also bring joint enforcement actions. For example, in September 1999, EPA Region 9 and the California Regional Water Quality Control Board issued parallel administrative orders with identical scopes of work to Shell Oil Company *et al* for contaminating the Charnock Sub-Basin with MTBE. MTBE, a gasoline additive, was found in Santa Monica wells that supplied drinking water for 45 percent of the city's 87,000 residents and in other wells that supplied drinking water for approximately 10,000 residences and businesses in Culver City. In March 2000, EPA issued a unilateral administrative order to Shell and other oil companies to provide water replacement. Subsequently, EPA, in consultation with the State, determined that a joint response was necessary to effectively address this threat. The joint action resulted in an administrative consent order issued by EPA on July 3, 2000, to restore the Charnock Sub-Basin to its beneficial use as a drinking water supply and to remediate the MTBE and other contaminants in the area.
- EPA may also bring an independent enforcement action in a primacy State (often referred to as overfiling), after appropriate notice, if the State fails to take an appropriate enforcement action or with the cooperation of the State. For example, EPA Region 3 issued an administrative penalty action against Jiffy Lube for the operation of a shallow injection well which could cause the migration of petroleum and other chemicals into underground sources of drinking water. The settlement required Jiffy Lube to inventory all of the facilities operated in the region and determine if there were additional wells in operation; remediate each of the locations; institute recycling and best management practices; and pay a penalty of $3,200. The administrative action was coordinated with the State of Maryland where several wells were located. Maryland later issued its own administrative action, modeled after the Federal one.
- Remember, also, that citizens have the right to initiate a court action if they believe the regulations are not being appropriately enforced.

Enforcement Penalties

Program	Admin. Penalties	Civil Penalties	Criminal Penalties
NPDWRs	$1K/day/V for PWS >10,000 people (States)	Up to $25K/day/V	No mention of criminal penalties
UIC	Up to $10K/day/V to $125K Oil and gas: Up to $5K/day/V to $125K	Up to $25K/day/V	"Willful" $25K/day/V and/or 3 years
CWA	Class I: Up to $10K/V to $125K Class I: Up to $10K/day to $125K	Up to $25K/day/V	"Negligent" -- $2.5K to $25K/day "Knowing" -- $5K to $50K/day and/or 3 years "Knowing endangerment" -- Up to $250K and/or 15 years

- Both statutes allow EPA to issue administrative penalties or to seek civil or criminal penalties in court. The amounts authorized vary by statute.
- EPA takes a number of factors into account when determining the amount of a penalty.
  - The penalty should be large enough to deter non-compliance.
  - Penalties should help ensure a level playing field by ensuring that violators do not obtain an economic advantage over their competitors; i.e., they should not benefit from:
    - Delaying pollution control expenditures;
    - Avoiding pollution control expenditures; or
    - Obtaining an illegal competitive advantage.
  - Penalties should be generally consistent across the country to provide fair and equitable treatment to the regulated community wherever they operate.
  - Penalties should use a logical calculation methodology to promote swift resolution of enforcement actions and the underlying violations.
  - EPA has issued guidance on calculating penalties, *Policy on Civil Penalties, General Enforcement Policy # GM-21*, and *Statute-Specific Approaches to Penalty Assessments, General Enforcement Policy # GM-22*.
- The ***Supplemental Environmental Project (SEP)*** is a civil penalty policy that EPA may use to mitigate a portion of the penalty as a quid pro quo for the violator's undertaking of an environmental improvement not otherwise required. SEPs typically are part of a negotiated settlement and used to partially offset penalties.
  - In 1976, Allied Chemical was convicted of 940 counts of violating the FWPCA for illegally discharging Kepone into the James River, and was fined $13.3 million. Allied proposed, as a SEP, to set up an $8 million fund and established the ***Virginia Environmental Endowment (VEE),*** a nonprofit corporation that would perform research and implement programs to mitigate the environmental effects of Kepone, for which Allied Chemical received a penalty reduction to $5 million.

Permits

What Is a Permit?

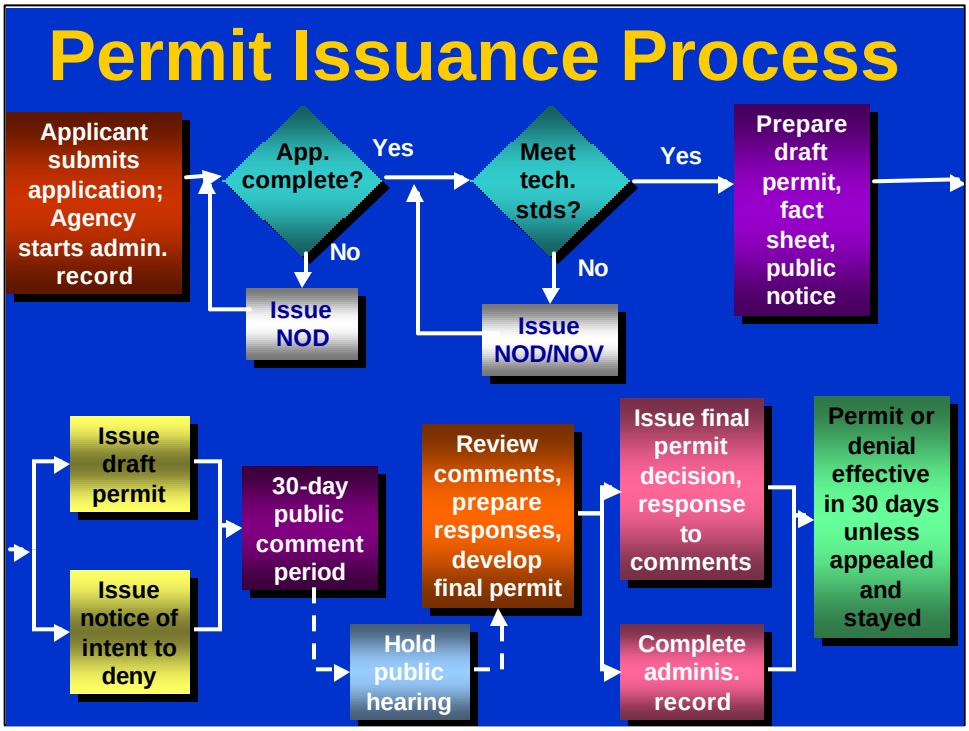
- Establishes the technical and administrative conditions for operation
- Allows EPA and States to track compliance
- Assures communication between regulated party and permitting authority
- Includes the public as a stakeholder

- EPA administers ***two permit programs*** under the Clean Water Act and the Safe Drinking Water Act -- National Pollution Discharge Elimination System (NPDES) permits and underground injection control (UIC) permits, respectively. For the NPDES and UIC programs, EPA has issued extensive technical regulations. However, these regulations must be applied to a facility in the context of the facility's specific operating conditions.
- A permit provides a facility owner and operator the ***legal authority*** to conduct the regulated activity and ***specifies the manner*** in which the facility will comply with the regulations. A permit establishes the technical and administrative conditions under which the facility may operate.
- Permits ***require an application*** from the owner/operator. This information exchange assures communication between the regulated party and the permitting authority. This is critical in ensuring that the owner/operator is aware of what is being required and the permitting authority is aware of potential environmental impacts.
- The permit also serves as an ***implementation mechanism***, in that it allows EPA or the primacy State to track operating parameters and compliance at the facility.
- The permitting process includes the ***public as a stakeholder***, both in issuing the permit and in subsequent enforcement. Remember that both statutes provide for citizen suits in which any person may bring a civil action against anyone alleged to be in violation of the statute's requirements (including a requirement in a permit), or against the Administrator for an alleged failure to perform any nondiscretionary act or duty under the statute, such as enforcing permit conditions.

Permit-as-a-Shield

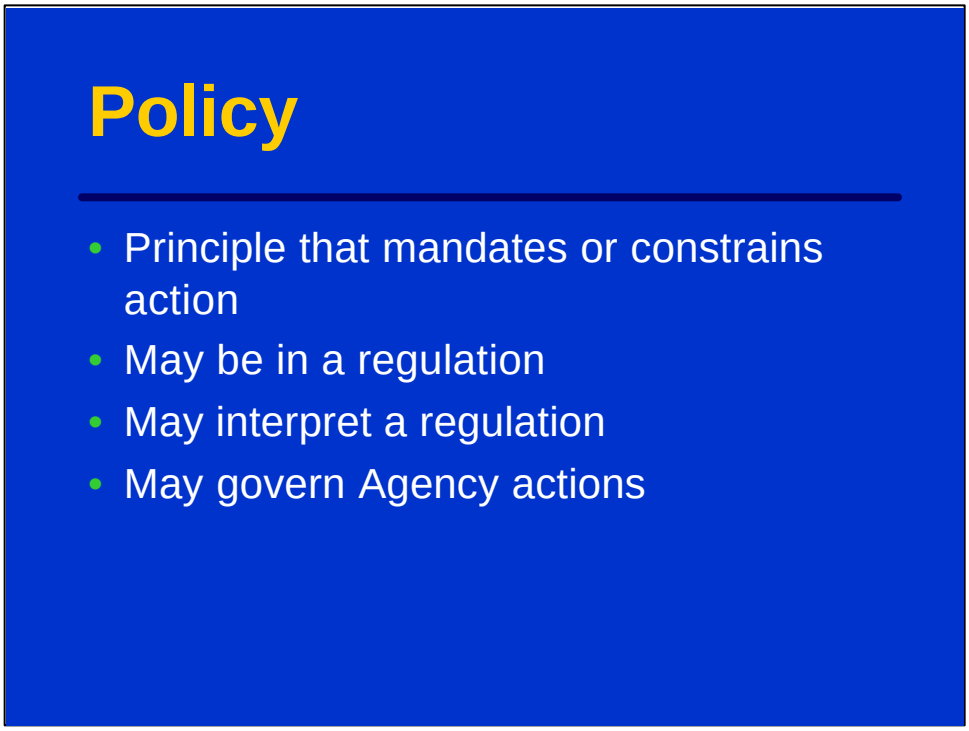
- Compliance with a permit is considered compliance with the regulations for enforcement purposes

- In general, compliance with a permit is considered compliance with the regulations for enforcement purposes. This gives permittees the security of knowing that if they comply with their permits, they will not be enforced against for violating new requirements that were not established in their original permit. This concept is known as ***permit-as-a-shield***.
- The permit-as-a-shield does not apply to some requirements that are of such importance to the protection of human health and the environmental that EPA believes that facilities should have to comply with them immediately. For example, standards imposed under CWA section 307 for toxic pollutants injurious to human health are not subject to permit-as-a-shield protection.

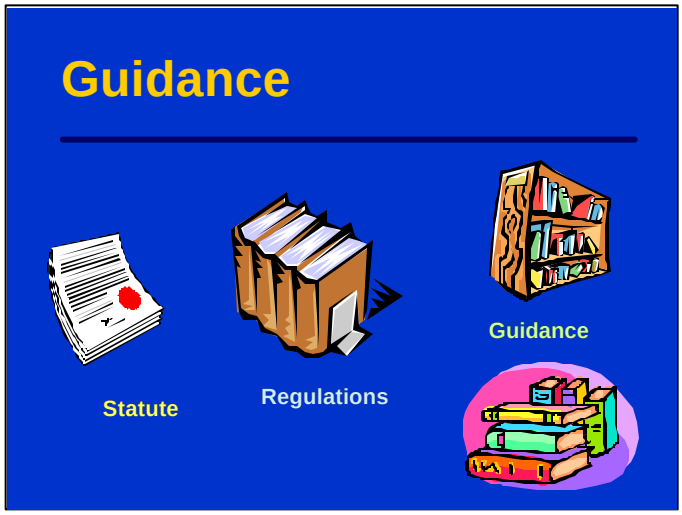


- ***40 CFR Part 124*** provides the procedural rules for EPA's UIC, NPDES and other permitting programs. The requirements are consistent with the notice and comment provisions of the Administrative Procedure Act.
- As with developing regulations, permitting decisions are documented in an administrative record. This is a public record that judges can review if a permit is challenged through litigation. Only those materials that are in the ***administrative record*** can be used to justify the Agency's actions and decisions. Therefore, it is very important that a permit writer be thorough in including materials in the administrative record.
- It is also important to follow the public participation procedures carefully. EPA's policy is to inform the public and maintain open communication channels on issues of concern. If these procedures are not followed, they may become an issue in a contested permit. Authorized/primacy States follow an issuance process consistent with the Federal process described here.

The Role of Policy and Guidance



- A ***policy is a governing principle*** that mandates or constrains actions. A policy ***may be codified in regulations***. For example, EPA's policy of full and open communication with the public on permitting issues is spelled out in the public participation procedures in 40 CFR Parts 25 and 124.
- Conversely, a ***policy may provide guidance*** on how to implement a regulation, but may not itself be a regulatory requirement. For example, for purposes of determining which aquifer exemptions qualify as substantial or non-substantial program revisions (under State UIC primacy programs), OGWDW developed a policy that "major aquifer exemptions" are substantial program revisions, thus requiring formal rulemaking under the Administrative Procedure Act (APA).
  - 40 CFR 144.7(b)(3) requires an aquifer exemption under 40 CFR 146.4(b) to be treated as a program revision under 40 CFR 145.32.
  - 40 CFR 145.32 requires substantial program revisions to be treated as formal rulemakings under the APA. Non-substantial program revisions may be approved by a letter from the Administrator to the Governor.
  - This policy, which was expressed in a 1983 memorandum from Victor Kimm, then-Director of the Office of Drinking Water, to the Regional Water Division Directors, defines "major aquifer exemptions" and requires that they be subject to formal rulemaking.
- Or a policy may spell out ***how EPA intends to act*** in certain situations. For example, EPA's Indian Policy establishes the principle that EPA will work with Indian Tribes on a government-to-government basis. This policy applies to all EPA actions involving Tribal relations in all EPA programs.



- EPA develops guidance to ***interpret and provide recommendations*** on how to implement regulations. EPA develops guidance internally, but often consults with the Office of Management and Budget and, as a matter of practice, also consults with stakeholders.
- Guidance does not have the force of law; i.e., the requirements are not binding and EPA cannot enforce them. Use of guidance instead of regulations has been controversial in some instances. EPA has been sued by the regulated community alleging that EPA is trying to enforce guidance. See handout # VI-1, describing a case in which EPA was sued under the Clean Air Act for imposing monitoring requirements found in a guidance document.
- In our earlier example, we contrasted statutory and regulatory provisions concerning monitoring at underground injection wells.
  - Statute: "Regulations. . . shall include. . .monitoring. . . requirements. ."
  - Regulations: "Monitoring requirements shall, at a minimum, include. . ."
- Below are the titles of several guidance documents EPA has issued regarding monitoring at underground injection wells. As you can see, they provide more information about implementing specific aspects of the monitoring regulations.
  - Operating, Monitoring, and Reporting Guidelines for Class II D Commercial Salt Water Disposal Wells;
  - Management and Monitoring Requirements for Class II Wells in Temporary Abandoned Status;
  - Procedure for Interpreting Whether or Not a Mechanical Integrity Test Failure or Excess Injection Pressure is Reporting as a Significant Non-Compliance;
  - Justifying Alternative Methods to Prove Mechanical Integrity Pursuant to 40 CFR 146.8(d); and
  - Follow-up to Loss of Mechanical Integrity for Class II Wells.
- The Safe Drinking Water Act Amendments of 1996 require EPA to publish "***guidelines***" specifying minimum standards for certification and recertification of the operators of community and nontransient, noncommunity public water systems. The statute did not provide any explanation of the term, "guidelines." EPA responded to this by publishing guidelines in the *Federal Register*. The guidelines are not codified in the CFR, but the statute requires EPA to withhold 20 percent of a State's DWSRF capitalization grant is the State does not comply with the guidelines.

Section Review

- Primacy and authorization
- Enforcement
- Permits
- Policy and guidance

- Split into groups and provide the questions for the answers in the handout.