

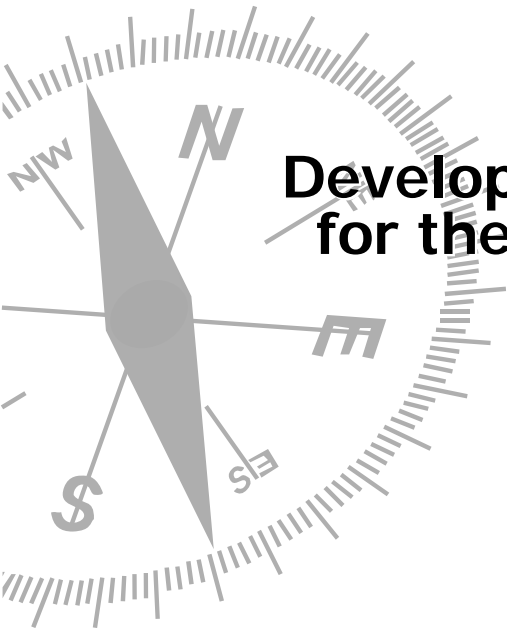
Regulatory Briefing

Presented to the Stakeholder Committee

**Development of a Regional Water Quality Protection Plan
for the Barton Springs Segment of the Edwards Aquifer
and its Contributing Zone**

“Regional Water Quality Planning Project”

September 2, 2004



THE KEY TO UNDERSTANDING ENVIRONMENTAL REGULATIONS:



Making Sense of the Alphabet Soup!

- ▶ "Insiders" use acronyms for everything!
- ▶ These acronyms are confusing to even the average college graduate
- ▶ We're here to help make sense out of all this!
- ▶ If we forget to spell out an acronym, please ask!

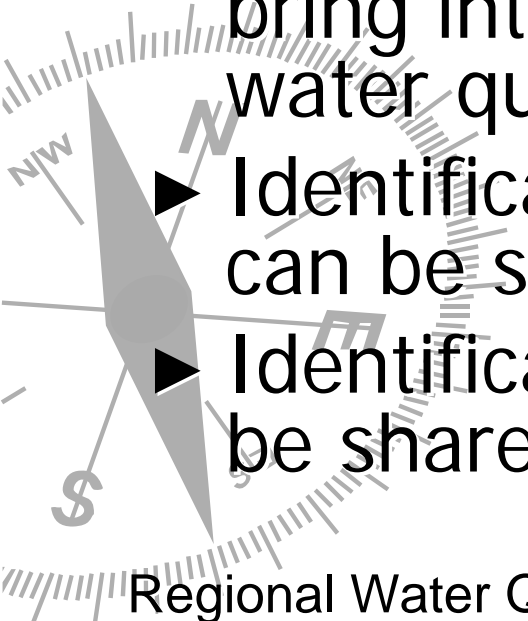
® Campbell Soup Company

Regional Water Quality Planning Project

September 2, 2004

RELATIONSHIP TO THE REGIONAL WATER QUALITY PLANNING PROCESS

- ▶ Some areas and activities impacting water quality are regulated under existing programs
- ▶ An understanding of current regulations will bring into focus activities to be addressed in the water quality protection plan
- ▶ Identification of areas where **implementation** can be shared, coordinated or augmented
- ▶ Identification of areas where **enforcement** can be shared, coordinated or augmented



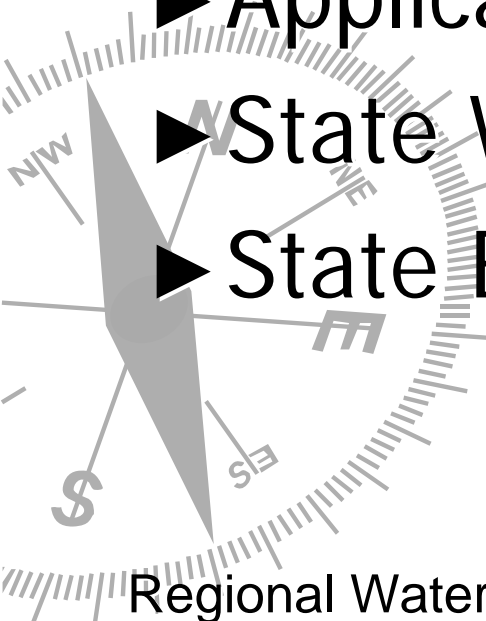
DISCLAIMERS

- ▶ While certainly not brief, neither is this presentation exhaustive or unabridged. It is intended to provide general background information only.
- ▶ It is not intended to provide specific direction or advice to any person or entity, or to offer legal opinions or advice.
- ▶ The regulatory framework presented is focused on the project area. Other water quality regulations exist that apply to other geographic areas and those were omitted from this presentation.



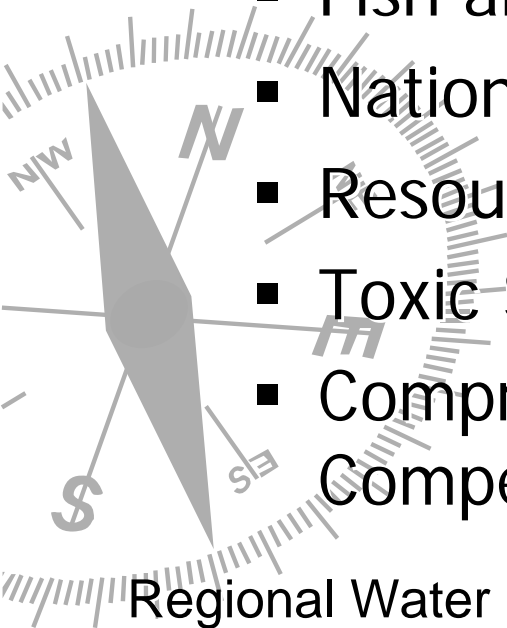
OVERVIEW

- ▶ Applicable Federal Legislation
- ▶ Federal Water Quality Regulatory Programs
- ▶ Federal Endangered Species Programs
- ▶ Applicable State Legislation
- ▶ State Water Quality Regulatory Programs
- ▶ State Endangered Species Programs



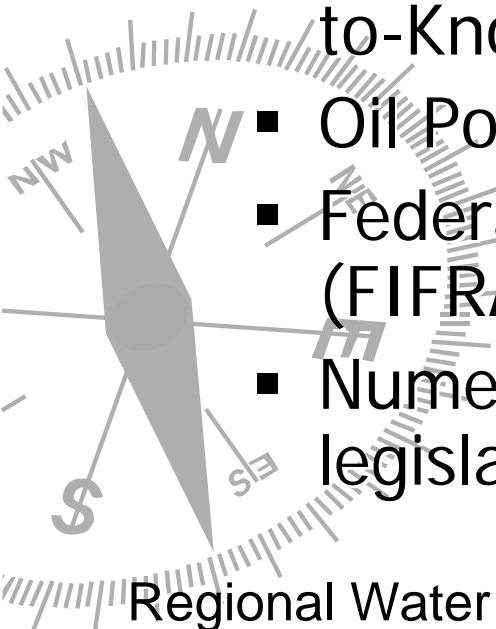
APPLICABLE FEDERAL LEGISLATION

- ▶ Federal Clean Water Act (CWA)
- ▶ Federal Endangered Species Act (ESA)
- ▶ Additional Federal Legislation
 - Rivers and Harbors Act
 - Fish and Wildlife Coordination Act
 - National Environmental Policy Act (NEPA)
 - Resource Conservation and Recovery Act (RCRA)
 - Toxic Substances Control Act (TSCA)
 - Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)



APPLICABLE FEDERAL LEGISLATION (Continued)

- ▶ Additional Federal Legislation (Continued)
 - Hazardous and Solid Waste Amendments (HSWA) to RCRA
 - Superfund Amendments and Reauthorization Act (SARA) / Emergency Planning and Community Right-to-Know Act (EPCRA)
 - Oil Pollution Act (OPA)
 - Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
 - Numerous provisions attached to other pieces of legislation (e.g. riders to appropriations bills, etc.)

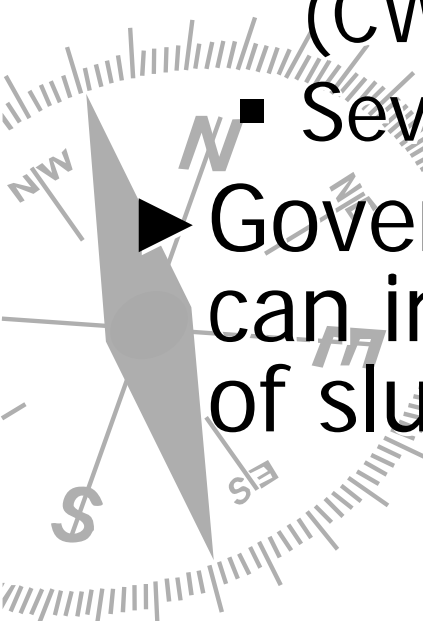


Federal Clean Water Act

▶ Legislative History:

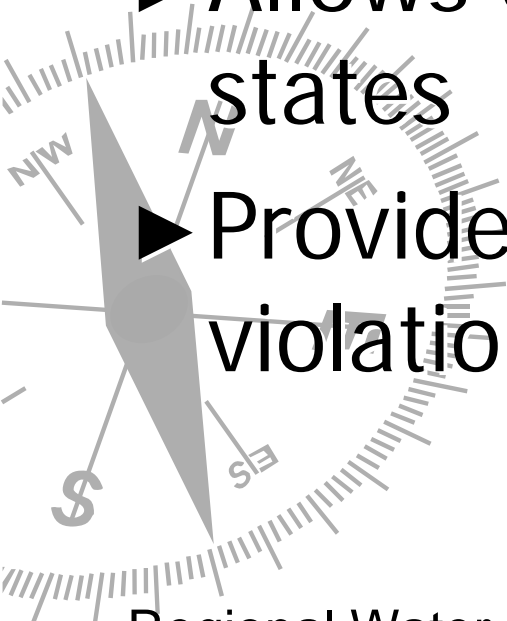
- Congress in 1948 – “Water Pollution Control Act”
- Major amendments 1961, 1966, 1970, and 1972
- Amended/renamed 1977 - “Clean Water Act” (CWA)
- Several subsequent amendments

▶ Governs discharges to water, activities that can impact water quality, and the disposal of sludge from water treatment processes



Federal Clean Water Act (Continued)

- ▶ Implemented by the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (COE)
- ▶ Allows delegation of activities to approved states
- ▶ Provides civil and criminal penalties for violations and citizen suits for enforcement



Federal Endangered Species Act

► Legislative History:

- Congress in 1966 - "Endangered Species Protection Act"
- Amended/Renamed 1969 – "Endangered Species Conservation Act"
- Amended/Renamed 1973 – "Endangered Species Act" (ESA)

► Several subsequent amendments

► Identifies procedures for listing species as "threatened" and "endangered"

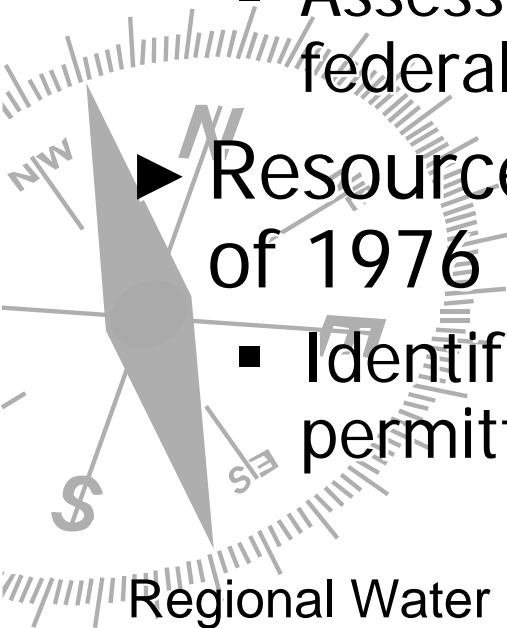
Federal Endangered Species Act (Continued)

- ▶ Governs activities that could impact listed species
- ▶ Implemented and enforced by the U.S. Fish and Wildlife Service (USFWS)
- ▶ Provides civil and criminal penalties for violations and citizen suits for enforcement



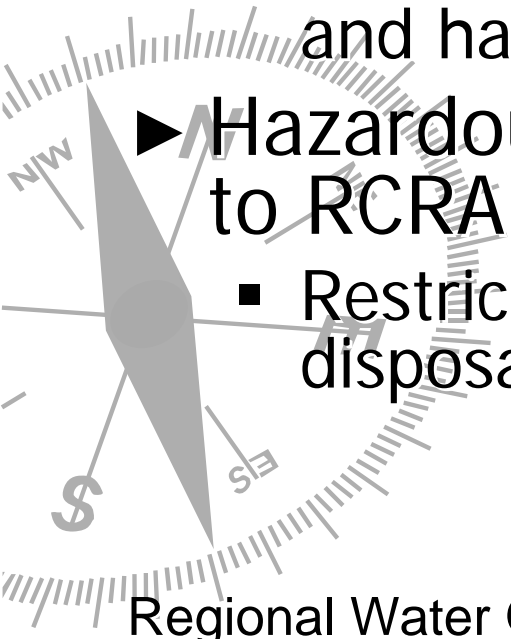
Additional Federal Legislation–Part 1

- ▶ Rivers and Harbors Act of 1899
 - Dredging/filling & ensuing ecological damage
- ▶ Fish and Wildlife Coordination Act of 1934
 - Consultation with USFWS for impounding, controlling or diverting water
- ▶ National Environmental Policy Act (NEPA) of 1969
 - Assessment/control of environmental impacts from federal actions
- ▶ Resource Conservation and Recovery Act (RCRA) of 1976
 - Identification/control of hazardous wastes and permitting of management facilities



Additional Federal Legislation–Part 2

- ▶ Toxic Substances Control Act (TSCA) of 1976
 - Identification/control of toxic substances and permitting of management facilities
- ▶ Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980
 - Defined/regulated hazardous substances, municipal and hazardous wastes, and petroleum storage tanks
- ▶ Hazardous and Solid Waste Amendments (HSWA) to RCRA of 1984
 - Restrictions and minimum technology requirements for disposal of hazardous and industrial wastes

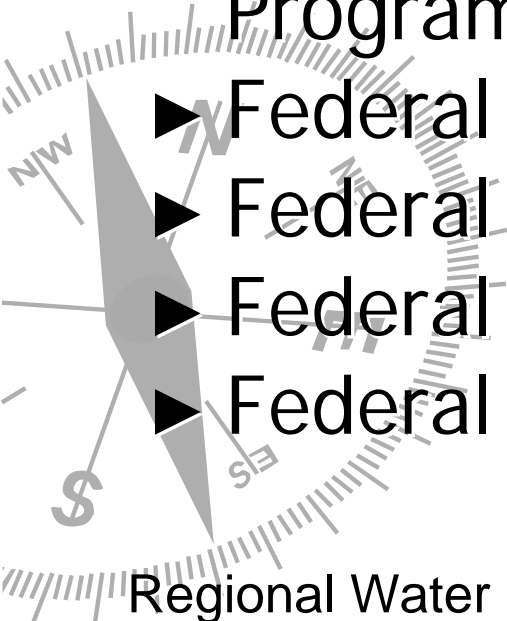


Additional Federal Legislation–Part 3

- ▶ Superfund Amendments and Reauthorization (SARA) / Emergency Planning and Community Right-to-know Act (EPCRA) of 1986
 - Petroleum storage tanks design and operation
 - Local planning to prevent health/safety threat & environmental pollution from hazardous materials
- ▶ Oil Pollution Act (OPA) of 1990
 - Planning, response and clean-up for oil spills
- ▶ Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
 - Pesticide approval, use and management

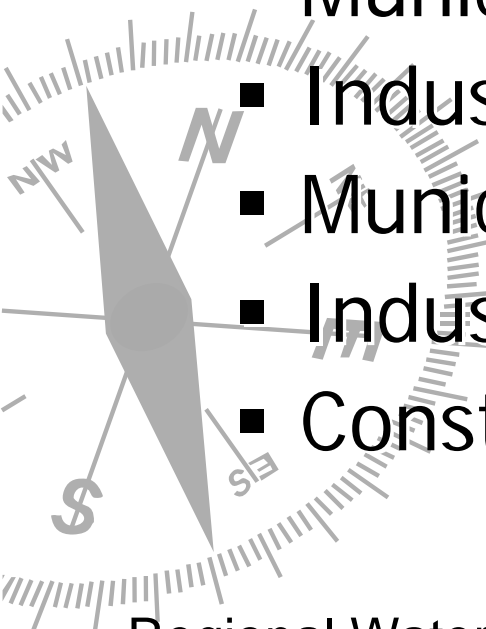
FEDERAL WATER QUALITY REGULATORY PROGRAMS

- ▶ National Pollutant Discharge Elimination System (NPDES)
- ▶ Federal Spill Prevention, Control and Countermeasure (SPCC) Program
- ▶ Federal Municipal Solid Waste Management Program
- ▶ Federal Hazardous Waste Program
- ▶ Federal Sludge Management Program
- ▶ Federal Superfund Program
- ▶ Federal Toxic Substances Control Program



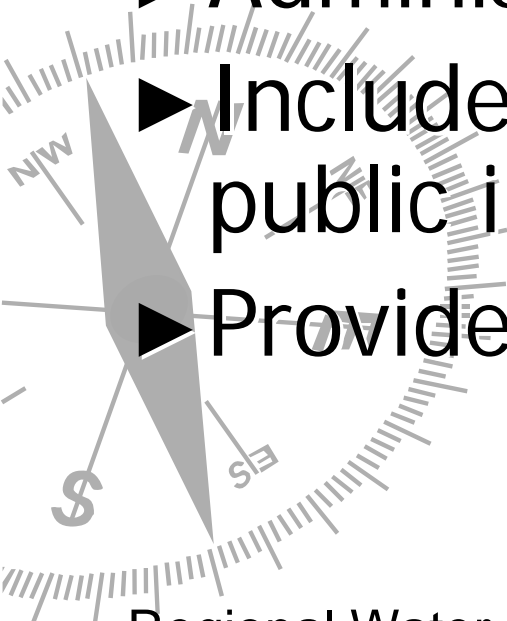
National Pollutant Discharge Elimination System (NPDES)

- ▶ Administered by the U.S. EPA [Title 40, Code of Federal Regulations (CFR), Chapter 122 or 40 CFR §122]
- ▶ Regulates:
 - Municipal Wastewater (Sewer) Discharges
 - Industrial Wastewater (Process) Discharges
 - Municipal Storm Water Discharges
 - Industrial Storm Water Discharges
 - Construction Site Storm Water Discharges



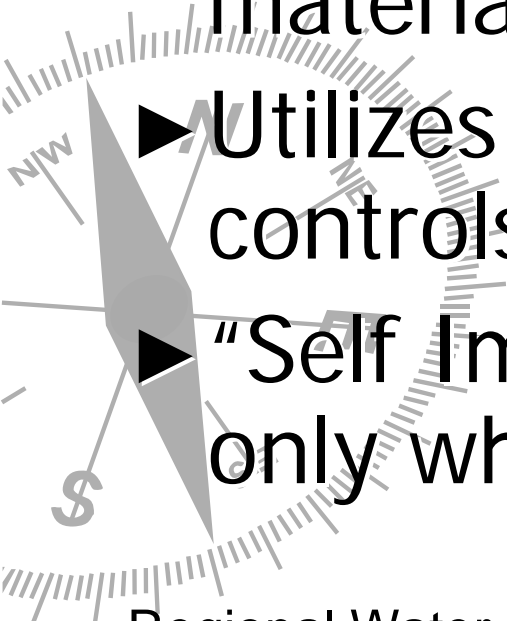
National Pollutant Discharge Elimination System (NPDES)– Continued

- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Administered through a permit system
- ▶ Includes requirements for public notice & public involvement
- ▶ Provides for delegation to approved states



Federal Spill Prevention, Control and Countermeasure (SPCC) Program

- ▶ Administered by the U.S. EPA [40 CFR §112]
- ▶ Regulates the storage and handling of petroleum products and hazardous materials
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ “Self Implementing” system – submittals only when requested



Federal Municipal Solid Waste Program

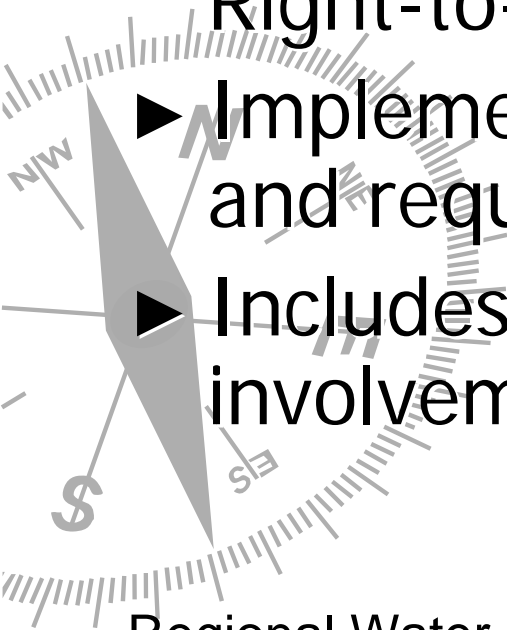
- ▶ Administered by the U.S. EPA [40 CFR §256-259]
- ▶ Regulates the transportation, storage, processing and disposal of municipal solid waste (garbage)
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through combination of permit program and “self implementation”
- ▶ Includes requirements for public notice & public involvement
- ▶ Provides for delegation to approved states

Federal Hazardous Waste Program

- ▶ Administered by the U.S. EPA [40 CFR §260-273]
- ▶ Regulates the generation, transportation, storage, processing and disposal of hazardous wastes
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through combination of permit program and “self implementation”
- ▶ Includes requirements for public notice & public involvement
- ▶ Provides for delegation to approved states

Federal Superfund Program

- ▶ Administered by the U.S. EPA [40 CFR §300-399]
- ▶ Requires the compilation and management of the National Priorities List (NPL) for contaminated sites, governs the clean-up of those sites, and outlines the Emergency Planning and Community Right-to-Know program
- ▶ Implementation through direct federal actions and required reporting
- ▶ Includes requirements for public notice & public involvement

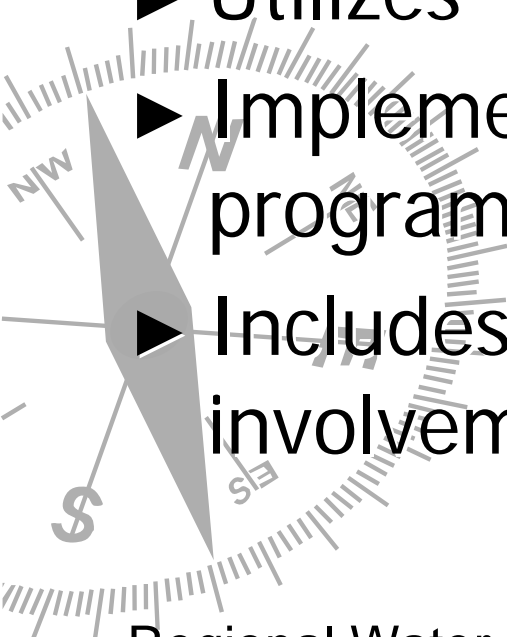


Federal Sludge Management Program

- ▶ Administered by the U.S. EPA [40 CFR §500-503]
- ▶ Regulates the transportation, storage, processing and disposal of sludge from water and wastewater treatment
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through combination of permit program and “self implementation”
- ▶ Includes requirements for public notice & public involvement
- ▶ Provides for delegation to approved states

Federal Toxic Substance Control Program

- ▶ Administered by the U.S. EPA [40 CFR §700-766]
- ▶ Regulates the creation, use, transportation, storage, processing and disposal of toxic substances
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through combination of permit program and “self implementation”
- ▶ Includes requirements for public notice & public involvement



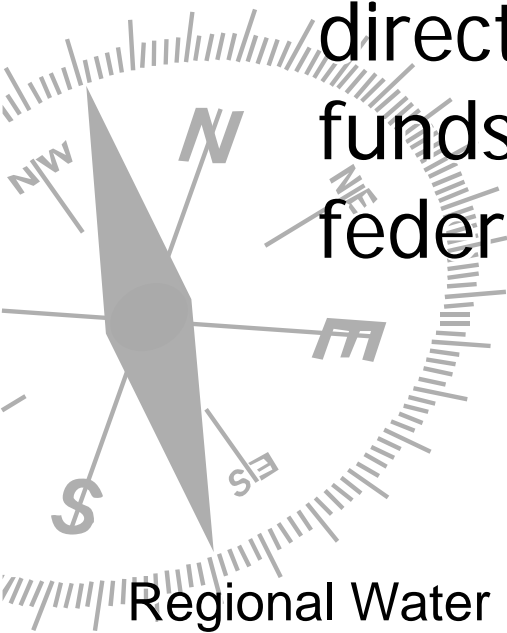
FEDERAL ENDANGERED SPECIES PROGRAMS – Part 1

- ▶ Administered by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) [50 CFR §1-697]
- ▶ Listing Program (ESA §4)
 - Includes procedures to evaluate and list “threatened” and “endangered” species
 - Species Recovery Plans



FEDERAL ENDANGERED SPECIES PROGRAMS – Part 2

- ▶ “Federal Actions” (ESA §7)
 - §7(a)(1) requires all federal agencies to aid conservation efforts for endangered species
 - §7(a)(2) requires consultation with USFWS on direct federal actions, actions using federal funds, and the issuance of permits under federal programs, including delegated states



FEDERAL ENDANGERED SPECIES PROGRAMS – Part 3

- ▶ Prohibition of “Taking” endangered species (ESA §9 & §10)
 - Prohibits taking, possession, sale, or transfer of certain endangered species
 - Allows the issuance of incidental take permits
 - Habitat Conservation Plans



APPLICABLE STATE LEGISLATION

▶ Texas Water Code

- Governs the protection, procurement, use, storage, and return of water in the state

▶ Health and Safety Code

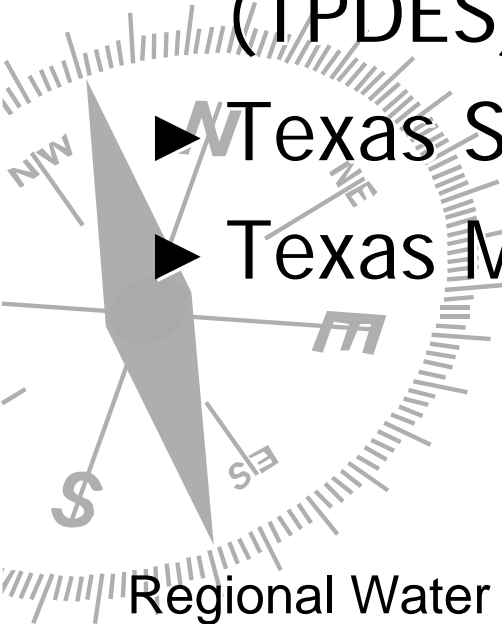
- Governs the treatment & disposal of municipal & industrial wastes, sewage sludge, & pollution clean-up

▶ Natural Resources Code

- Governs oil & gas exploration/production, mining, natural resource protection, & conservation easements

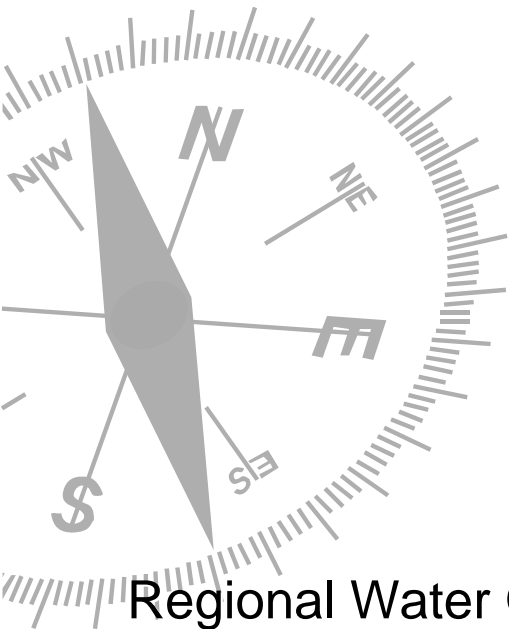
STATE WATER QUALITY REGULATORY PROGRAMS – Part 1

- ▶ Texas Oil and Gas Environmental Program
- ▶ Texas Edwards Aquifer Protection Program
- ▶ Texas On-Site Sanitary Facility (OSSF) Program
- ▶ Texas Pollutant Discharge Elimination System (TPDES)
- ▶ Texas Sludge Disposal Program
- ▶ Texas Municipal Solid Waste Program



STATE WATER QUALITY REGULATORY PROGRAMS – Part 2

- ▶ Texas Petroleum Storage Tank Program
- ▶ Texas Industrial and Hazardous Waste Program
- ▶ Texas Agricultural and Silvicultural Water Quality Management Program



Texas Oil and Gas Environmental Program

- ▶ Administered by the Railroad Commission of Texas (RRC) [Title 16, Texas Administrative (TAC), Chapters 1-7 or 16 TAC §1-§7]
- ▶ Regulates the exploration and production of oil, gas & geothermal resources and the disposal and clean-up of wastes
- ▶ Implementation through various regulatory approvals, including registrations and major and minor permits
- ▶ Enforcement by RRC Division offices

Texas Edwards Aquifer Protection Program – Part 1

- ▶ Administered by Texas Commission on Environmental Quality (TCEQ) [Title 30, Texas Administrative (TAC), Chapter 213 or 30 TAC §213]
- ▶ Regulates soil disturbance activities over the recharge zone, contributing zone and the transition zone of the Edwards Aquifer
 - ▶ Utilizes “structural” and “non-structural” controls
 - ▶ Implementation through the approval of Water Pollution Abatement Plans (WPAP)

Texas Edwards Aquifer Protection Program – Part 2

- ▶ Special Requirements for:
 - Organized Sewage Collection Systems
 - Underground Storage Tank (UST) facilities for hydrocarbons and hazardous substances
 - Aboveground Storage Tank (AST) facilities for hydrocarbons and hazardous substances
 - On-site Sanitary Sewage Facilities (OSSF)
- ▶ Enforcement by TCEQ central and region offices



Texas On-Site Sanitary Sewage Facility (OSSF) Program

- ▶ Administered by TCEQ and delegated local governments [30 TAC §285]
- ▶ Regulates the installation, operation and maintenance of OSSF's including septic tanks, irrigation systems, proprietary treatment systems and others
- ▶ Utilizes primarily "structural" controls
- ▶ Implementation through a permit program
- ▶ Enforcement by TCEQ region offices and delegated local governments

Texas Pollutant Discharge Elimination System (TPDES) – Part 1

- ▶ Administered by TCEQ [30 TAC §307-317]
- ▶ Regulates:
 - Municipal Wastewater (Sewer) Discharges
 - Industrial Wastewater (Process) Discharges
 - Municipal Storm Water Discharges
 - Industrial Storm Water Discharges
 - Construction Site Storm Water Discharges
 - Certain point and non-point source discharges
- ▶ Approved delegation under the U.S. EPA's NPDES program

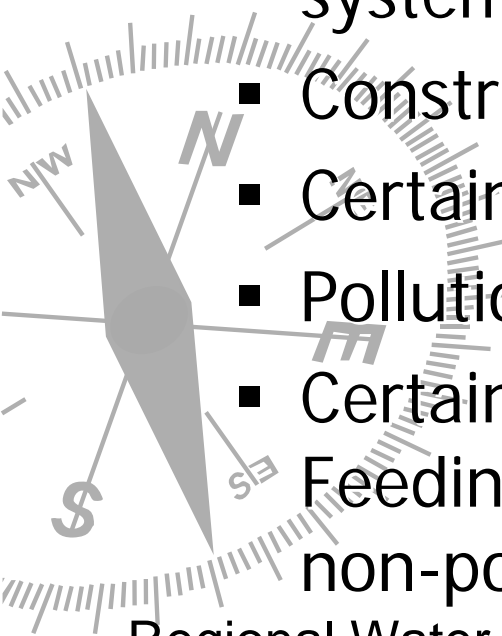
Texas Pollutant Discharge Elimination System (TPDES) – Part 2

- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through various regulatory approvals, including permits by rule, general permits, and individual permits
- ▶ Includes requirements for public notice & public involvement
- ▶ Enforcement by TCEQ central and region offices
- ▶ Examples of regulated facilities/entities:
 - Municipal sewer plants of any size
 - Industrial process wastewater plants of any size

Texas Pollutant Discharge Elimination System (TPDES) – Part 3

► Examples of regulated facilities/entities: (Continued)

- Large and medium municipalities (Phase I) and small municipalities in urbanized areas (Phase II) that own/operate/manage municipal separate storm sewer systems (MS4s)
- Construction sites larger than 1 acre
- Certain industrial facilities with storm water discharges
- Pollution clean-up sites with treated water discharges
- Certain agricultural facilities (Concentrated Animal Feeding Operations – CAFOs) with point source and non-point source discharges



Texas Sludge Program

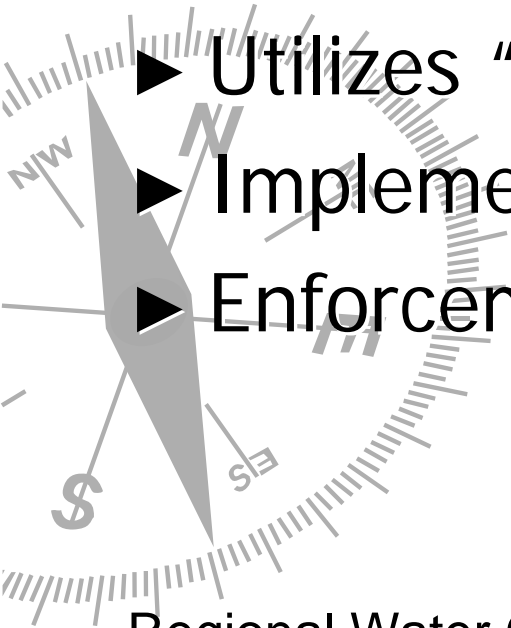
- ▶ Administered by TCEQ [30 TAC §312]
- ▶ Regulates the transportation, storage, processing and disposal of sludge from water and wastewater treatment plants
- ▶ Approved delegation under the U.S. EPA's NPDES program
- ▶ Utilizes "structural" and "non-structural" controls
- ▶ Implementation through various regulatory approvals, including notifications, registrations and permits
- ▶ Enforcement by TCEQ central and region offices

Texas Municipal Solid Waste Program

- ▶ Administered by TCEQ [30 TAC §330]
- ▶ Regulates the transportation, storage, processing and disposal of municipal solid waste (garbage)
- ▶ Approved delegation from U.S. EPA
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through various regulatory approvals, including notifications, registrations and permits
- ▶ Enforcement by TCEQ central and region offices

Texas Petroleum Storage Tank Program

- ▶ Administered by TCEQ [30 TAC §334]
- ▶ Regulates the installation, operation and pollution from underground and aboveground petroleum storage tanks (USTs and ASTs)
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through registrations
- ▶ Enforcement by TCEQ central and region offices



Texas Industrial and Hazardous Waste Program

- ▶ Administered by TCEQ [30 TAC §335]
- ▶ Regulates the transportation, storage, processing and disposal of hazardous and non-hazardous industrial solid waste
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through various regulatory approvals, including notifications, registrations and permits
- ▶ Enforcement by TCEQ central and region offices



Texas Agricultural and Silvicultural Water Quality Management Program

- ▶ Administered by Texas State Soil and Water Conservation Board (TSSWCB) [31 TAC §523]
- ▶ Voluntary program to control pollution from certain agricultural operations
- ▶ Utilizes “structural” and “non-structural” controls
- ▶ Implementation through water quality management plans
- ▶ Enforcement by TSSWCB and district offices

STATE ENDANGERED SPECIES PROGRAMS

- ▶ Administered by the Texas Parks and Wildlife Department (TPWD) [31 TAC §65-69]
- ▶ Listing Program similar to Federal ES programs
 - Includes procedures to evaluate and list “threatened” and “endangered” species
 - Natural Resource Protection/Restoration



Questions



- ▶ Grant A. Jackson, P.E.
Naismith Engineering