

# Your WYPDES Permit

## WYPDES Permitting for Municipalities

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Understand the Regulations



# Regulatory Framework

- Federal Clean Water Act
  - Wyoming has primacy of NPDES program
  - Must follow federal guidelines
  - Wyoming may impose additional requirements
  - Can not be less stringent than federal requirements





# Regulatory Framework

- Wyoming Environmental Quality Act
- Water Quality Rules and Regulations (WQRR)
  - Chapter 1
    - Water quality standards and designated uses
      - Aquatic Life
      - Drinking Water Supplies





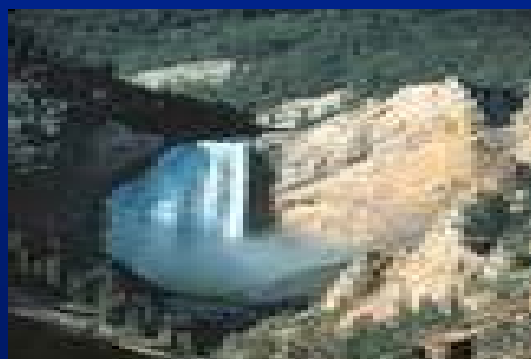
# Regulatory Framework

- WQRR, Chapter 2
  - WYPDES permit required when:
    - Pollution** contamination or other alteration of the physical, chemical, or biological properties of any waters of the state
    - Point source** any discernable, confined and discrete conveyance from which pollutants are or may be discharged
    - Surface water of the state** all perennial, intermittent and ephemeral defined drainages, lakes, reservoirs, and wetlands which are not man-made retention ponds used for the treatment of municipal, agricultural or industrial wastes, and all other bodies of water, either public or private which are wholly or partially within the boundaries of the state. Note that the state's definition of surface water is much broader than the EPA's definition of waters of the U.S.



Discharge point from the Shoshoni wastewater treatment plant which discharges to Poison Creek

Which one is a point source?



Which one is a surface water of the state?



Town of Albin's Lagoon System



# Types of Facilities

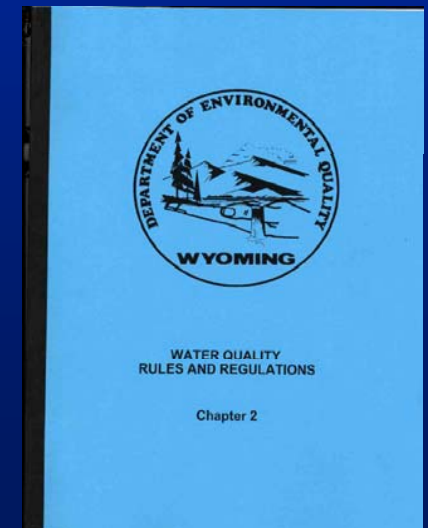
- Municipal Wastewater Treatment Plants (76)
- Oil Industry (450)
- Industrial Facilities (48)
- Agricultural Facilities (45)
- CBNG Industry (900)





# Regulatory Framework

- Water Quality Rules and Regulations
  - Chapter 2
    - Process to issue a permit and minimum permit conditions
      - Section 5:
        - Application Requirements
        - Access for DEQ Inspectors
          - Collect samples and copies of records
        - Standard Conditions
        - Similar to those found in Parts II and II of your permit





# Regulatory Framework

- Water Quality Rules and Regulations
  - Chapter 2
    - Renewal of permit

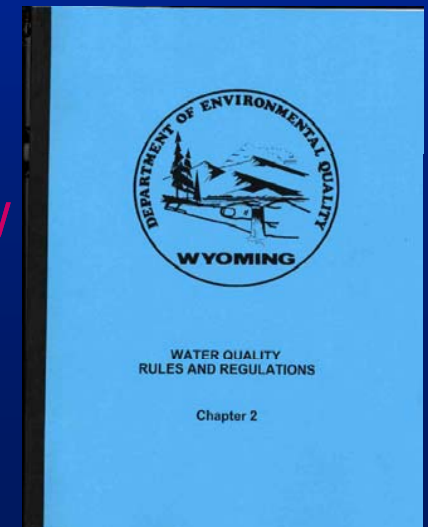
## Section 10:

Provide notification 180 days prior to permit expiration (Renewal Letter)

DEQ typically provides Renewal Letter

DEQ recently revised the renewal letter which now requires sampling for a variety of constituents

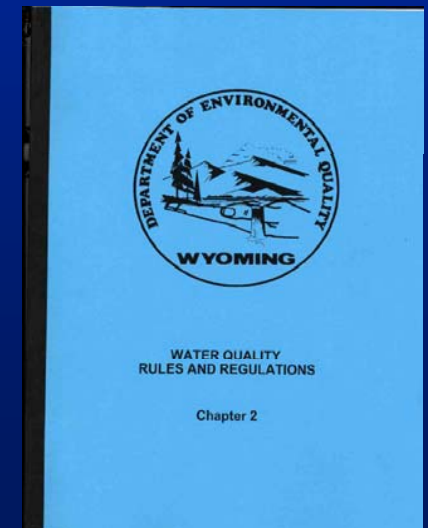
Must have a Renewal Letter on file





# Regulatory Framework

- Renewal Monitoring requirements for all municipal permits
  - Biological oxygen demand (BOD or CBOD)
  - E. coli
  - pH
  - Temperature
  - Total Suspended Solids
  - Ammonia (as N)
  - Chlorine (total residual, TRC) (only if chlorine is used in the treatment process)
  - Dissolved oxygen
  - Nitrate/Nitrite
  - Kjeldahl nitrogen
  - Oil and grease
  - Phosphorus
  - Total dissolved solids
- Major Discharges must conduct additional sampling
- Plan ahead begin collecting the samples at least six months before your permit expires





# Regulatory Framework

- Water Quality Rule and Regulations
  - Chapter 2
    - Permit Modification

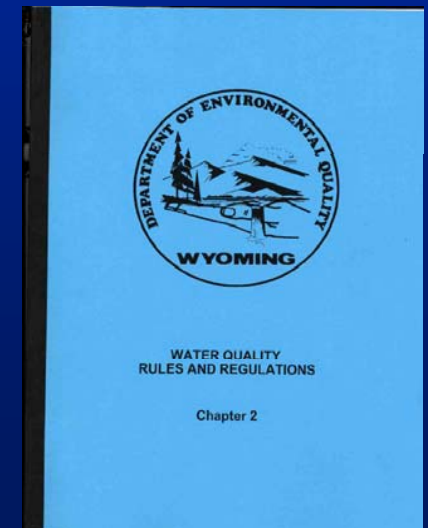
Section 12:

Must provide notification to modify permit Requests that are less stringent than existing permit conditions must be advertised in public notice

Typical modification requests:

Adding an additional discharge point

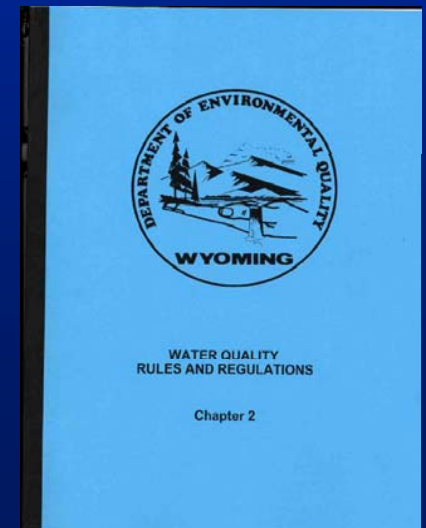
Increase in flow or change frequency of monitoring for a constituent





# Regulatory Framework

- Water Quality Rule and Regulations
  - Chapter 2
    - Signatory Requirements
      - Section 14:
        - Signature for applications and renewal letters
          - principal executive officer or ranking elected official (Mayor)
        - Signature for other reports such as DMRs
          - duly authorized official





Read Your Permit



# Parts of an WYPDES Permit

## ➤ Statement of Basis

- Narrative description of the facility
- Description of effluent limits and their basis
- Not a legal part of the permit

## ➤ Signature Page

- Issue and expiration dates
- Needs to be signed by WDEQ Director to be effective
- Probably the most important part of the permit

# Parts of an WYPDES Permit

## ➤ Part I

- Establishes effluent limits
- Provides information about monitoring requirements
- Describes monitoring report submittal dates
- Describes monitoring periods
- Defines sampling protocols (40 CFR Part 136)
- Compliance Schedules
  - Schedule required if interim date longer than one year
  - Schedule requires submission of progress report

## ➤ Parts II and III

- Additional narrative requirements
- Reopener provision (Part III.3)
- Violation notification requirements

# Types of Permit Limits

- **Technology Based Effluent Limits**
  - **National Secondary Treatment Standards**
    - Shows that wastewater treatment system is working optimally to treat water.
- **Water Quality Based Effluent Limits**
  - Protect in-stream water quality standards of the receiving stream
  - **Chapter 1 Wyoming Water Quality Rules and Regulations**

# Technology Based

## ➤ National Secondary Treatment Standards

- Biochemical Oxygen Demand (BOD)
  - 30-45-90 mg/l, monthly avg, weekly max, daily max
- Total Suspended Solids
  - 30-45-90 - or -
  - 100-150-300
- pH, 6.5-9.0 Standard Units

# Technology Based

## ➤ National Secondary Treatment Standards

- BOD and TSS percent removal
  - Demonstrate a 85% removal from influent to effluent
  - Will now be a permit limit and monitoring requirement for all municipal permits
    - In past only applied to major permits
  - If can't meet the 85% removal and can demonstrate inability to meet requirement is not related to I&I, then may qualify for 65% removal.
    - Can request a permit modification if have trouble meeting 85% removal

# Water Quality Based Limits

- **Based upon WQRR, Chapter 1**
  - **E-coli**
  - **Total Residual Chlorine**
  - **Ammonia**
- **Limits based on effluent characteristics and receiving stream**

# E-coli

- Primary Contact Recreation Limits
  - May 1 to September 30: Monthly Geometric Mean of 126 organisms per 100 mls.
  - October 1 to April 30: Monthly Geometric Mean of 630 organisms per 100 mls.
- Secondary Contact Recreation Limits
  - January 1 to December 31 (all year): Monthly Geometric Mean of 630 organisms per 100 mls.
- All receiving waters near Wyoming cities and towns are considered “Primary Contact” waters because of their proximity to a human population

# E-coli

- Monthly Geometric Mean on 5 samples collected over a 30 day period.
- Daily (Single Sample/Not Geometric Mean) Maximums:
  - High use swimming areas: 235 organisms/100 mls.
  - Moderate full body contact: 298 organisms/100 mls.
  - Lightly used full body contact: 410 organisms/100 mls.
  - Infrequently used full body contact: 576 organisms/100 mls.
  - Default is 576 organisms/100 mls. Unless we have any other information demonstrating otherwise.

# Whole Effluent Toxicity (WET)

- Required for Major Dischargers;
- Acute and/or Chronic depending upon circumstances;
- Usually included as a monitoring requirement only
- Repeated WET failures will result in additional permit limits.

# TDS – Colorado River Basin

Municipal WWTP discharges are allowed a 400 mg/L increase in TDS measured as the difference between the Drinking water source and the WWTP discharge.

Exemptions can be made for discharges of less than 1 ton/day TDS.

# Monitoring Requirements

- **Carefully review monitoring requirements defined by the permit**
  - **Frequency varies by constituent**
  - **Minimum requirement - can take additional samples to monitor operation of plant.**
  - **If additional samples are taken, must report to DEQ**
    - **Monthly Average**
    - **Weekly Average**
    - **Daily Maximum**
  - **Samples must be taken from final treatment unit and prior to admixture with receiving water**
  - **Must be able to take a representative sample (free fall)**

# Reporting Requirements

- **Discharge Monitoring Requirements (DMRs)**
  - **Must be submitted within 28 days after monitoring period**
  - **Take samples early in monitoring period**



Lingle's discharge point

# Reporting Requirements

## ➤ eDMR

- Ability to submit DMR data electronically
- Must apply for Pin/Password (Activation Form)

# Reporting Requirements

- **Anticipated noncompliance**
  - Must provide written notification within five days
    - Description
    - Period of noncompliance
    - Steps taken to reduce reoccurrence
- **Unanticipated noncompliance**
  - Same written notification as described above
  - 24 hour notification
    - Bypass or upset conditions that results in an violates any effluent limit
- **Change in operation of plant**
  - Written notification of alteration or addition to plant
    - Addition of new chemicals
    - DEQ will evaluate effluent limits

# Permit Renewal

- Permit can be issued for a maximum of five years
- Advertised in public notice
  - Review the proposed permit
  - Recognize the limits and other permit conditions may change



# Operation of the Plant



# Know Your Plant

- Operation of Plant is Key
  - Ability to react to unexpected changes in operation
  - Take samples throughout plant
  - Common violations
    - TRC and Fecal
  - Contact DEQ District Engineers or other resources for assistance
    - Ask questions



City of Cheyenne



The best advice I can provide is to keep lines of communication open with the DEQ and always ask questions.