

NPDES WATERSHED BASED PERMITTING



Wyoming Department of Environmental Quality
Water Quality Division
June 2004

Watershed Based Permitting Objectives

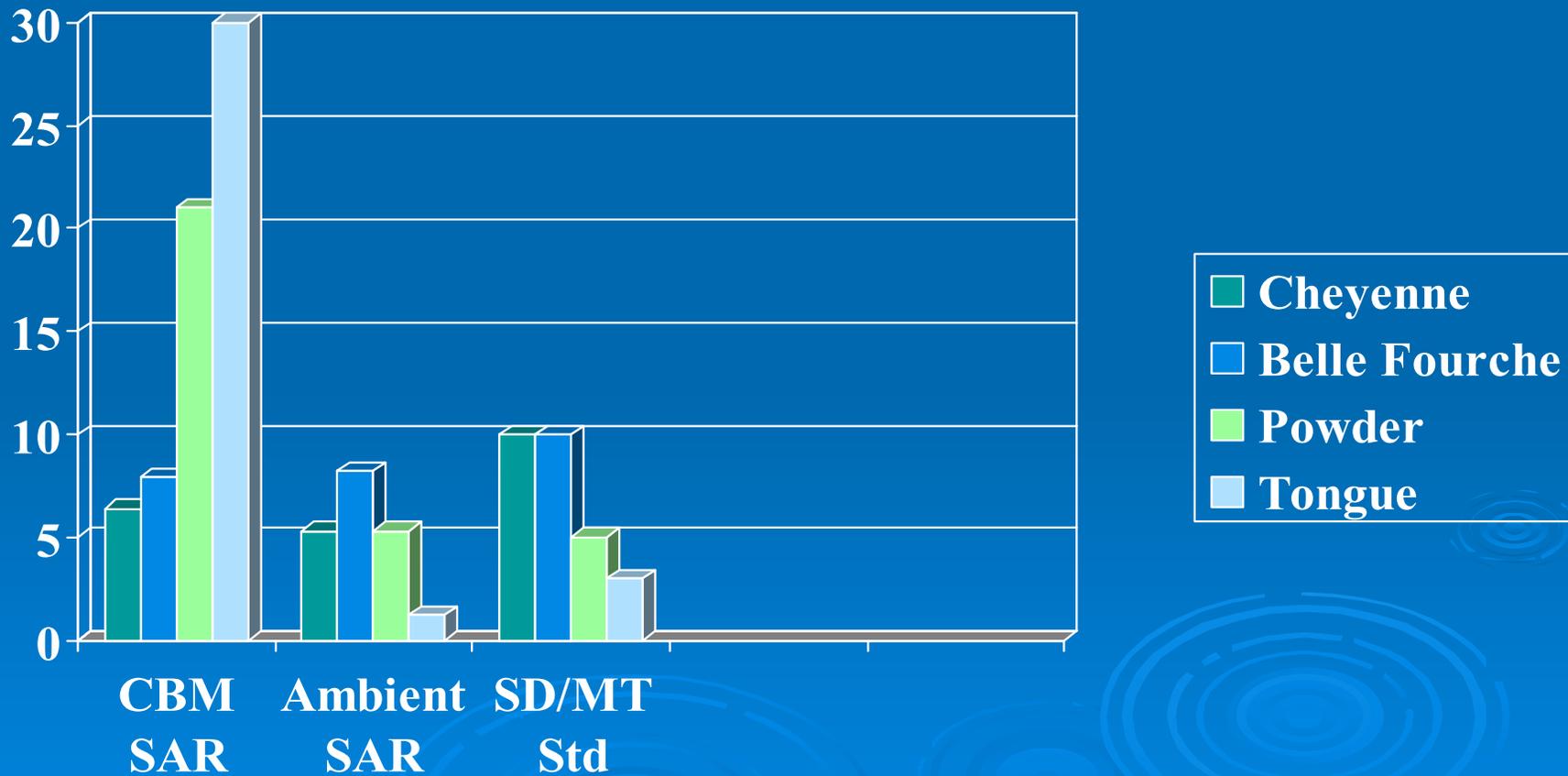
- Improved Permitting Process
- Consolidation of Outfalls
- Improved Environmental Protection
- Predictable Outcomes
- Improved Mechanism to Hear and Address Concerns
- Equitable Distribution of Finite Assimilative Capacity
- Clear Understanding of Limits and Constraints
- Clear Understanding of Competing Interests
- More Informed DEQ Decisions

Watershed Based Permitting

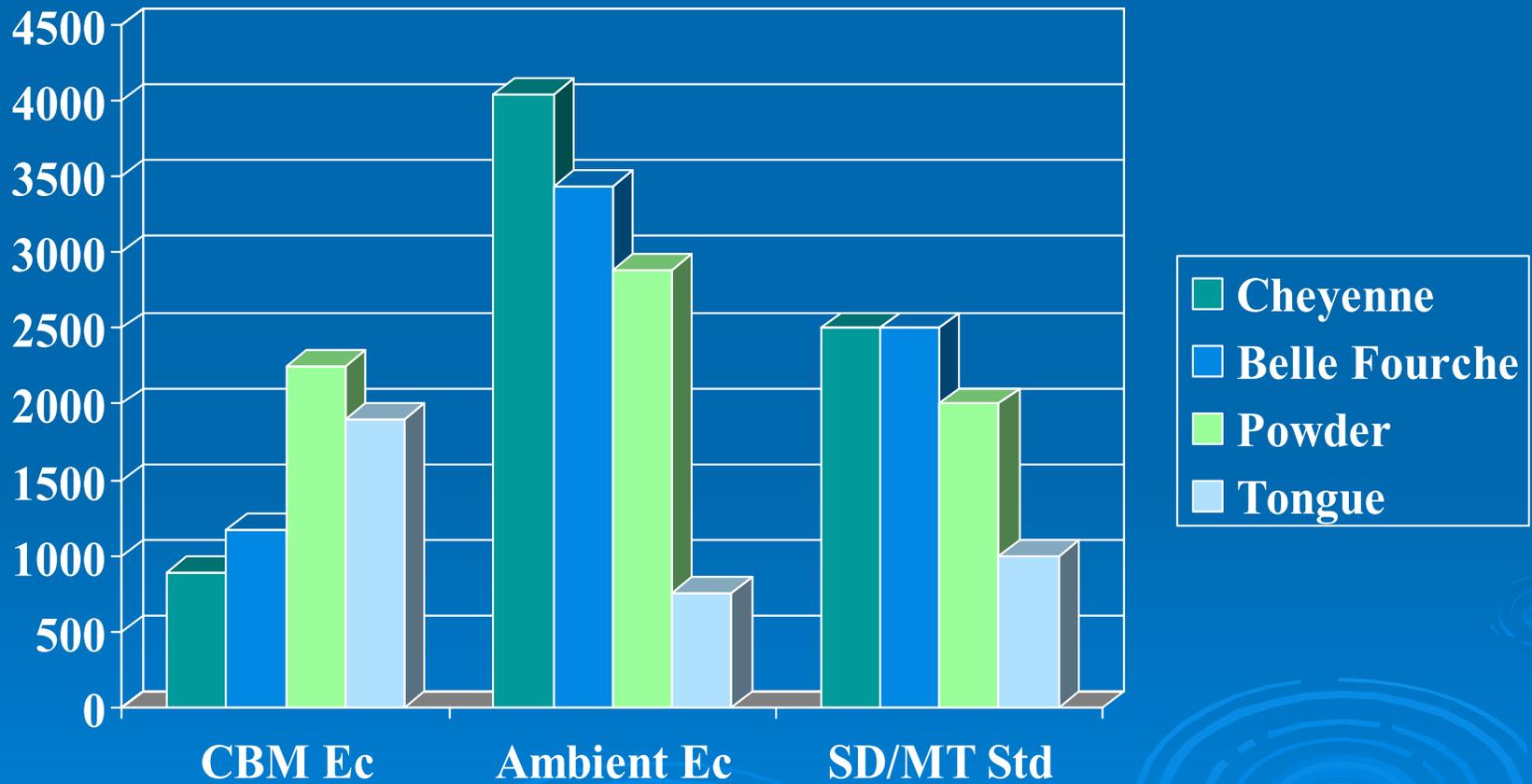
Why Now?

- Less than 40% of Total Wells Drilled
 - Future Development in Powder and Tongue
- Increase in Water Production
 - Deeper Thicker Coals
- Decrease in Water Quality
 - SAR
 - Ec
 - Barium
 - WETT

Inverse Relationship East to West



Inverse Relationship East to West



Watershed Based Permitting Why Now?

- Heightened Concern Over Cumulative Impacts
 - WDEQ
- Montana DEQ
 - South Dakota DEQ
 - WG&F
 - Landowners/Landusers
 - Environmental Interest Groups

Challenges

- Diverse Stakeholders
 - Sideboards and Ground Rules
- Watershed Plan Development Timing
 - Facilitator
 - Sideboards
- Nay Sayers
 - Incentives
- Existing Discharges

12 Step Process

- Process Initiation
 - Operator(s) Propose to Develop in New Watershed
 - Size of Watersheds
 - 10 or 12 Unit Hydrologic Unit Code (HUC)
 - See MAP Handout
 - Phased Implementation
 - Undeveloped Watersheds
 - Less Complicated
 - Developed Watersheds
 - Incorporation of Existing Infrastructure
 - Cycle on Common Expiration Dates

Process

1. Identify Stakeholders

- Joint Effort (DEQ and Operator(s))
- Stakeholders
 - Operators
 - Landowners
 - Landusers
 - Environmental Interest Groups
 - Governmental Agencies (Local, State, Federal)
 - Other

Process

2. Collect, Analyze and Summarize Available Data

- Compiled by the Operator(s)
- DEQ Oversight
- Sources
 - USGS
 - SEO/WOGCC/DEQ/WGS/G&F
 - DEQ
 - BLM
 - Industry
 - EPA
 - Conservation Districts

Process

3. Public Meeting to Initiate the Process

- Public Notice of Meeting
- Meeting in the Vicinity of the Watershed
- Identify Facilitator (Selected by DEQ)
- Establish
 - Objectives
 - Timelines
 - Sideboards and Ground Rules

Process

4. Identify Water Quality Objectives

- Target Flow Volume
- Target Concentrations
- Potential Water Uses

Process

5. Identify Discharge Constraints

- Irrigation Use
- Groundwater Protection
- Erosion
- Channel Capacity
- Topography
- Produced Water Quality/Quantity

Process

6. Evaluate and Select Discharge Options

- Irrigation
- On-Channel Storage
- Off-Channel Storage
- Direct Discharge
- Treatment
- ReInjection
- Consolidation of Outfalls

Process

7. Establish Monitoring Locations

- Verify Assumptions
- Adjustments as Necessary

Process

8. Develop Monitoring Plan

- Constituents
- Frequency
- Reporting
- Responsibilities
- Contingencies

Process

9. Develop Watershed Based Permit Conditions and Documentation
 - Part I
 - Special Conditions
 - Justification for Limitations
 - DMR Frequency and Constituents

Process

10. Public Notice of Permit

- 30 Day Minimum
- In Paper in Vicinity of the Watershed
- WDEQ Web Site

Process

11. Respond to Public Comment

12. Issue Watershed Based Permit

- Monitor Implementation
- Adjust if necessary

Current Efforts Underway

- Permit Expiration Dates
- Montana TMDL Effort
- EPA Innovative Grants
- Undeveloped Drainages and Permit Expirations (July 1, 2004)