



Surface Water Discharge Limitations (*Ever Increasing*)



ASSBT 2011
Water Quality
Environmental Forum
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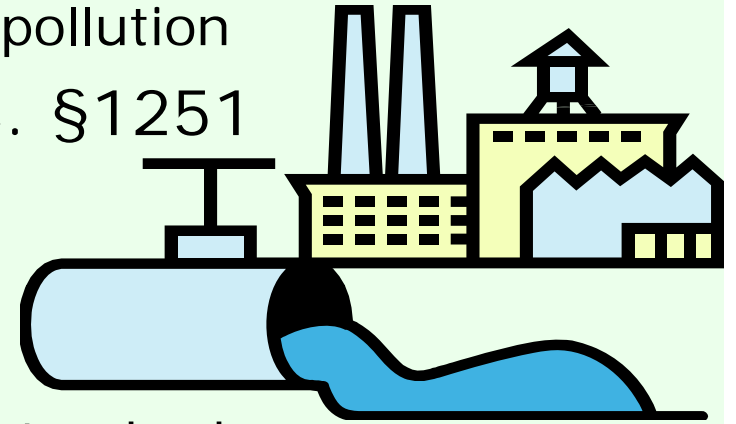


Colorado Department
of Public Health
and Environment



Regulatory History

- ❑ Federal Water Pollution Control Act 1948
 - ❑ First major law to address water pollution
- ❑ Clean Water Act (CWA) 33 U.S.C. §1251
 - 1972 Major Amendments
 - 1977 Updates
 - ❑ Basic structure NPDES program
 - ❑ EPA authority to set wastewater standards
 - ❑ Set water quality standards in surface waters
 - ❑ Unlawful to discharge any pollutant from point source without permit under CWA
 - ❑ Included planning for non-point source discharges







Regulatory History

Section 303(d) of Clean Water Act

The goal of the **Clean Water Act (CWA)** is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C §1251(a)). Under section 303(d) of the CWA, states, territories, and authorized tribes, collectively referred to in the act as "states," are required to develop lists of impaired waters. These are waters for which **technology-based regulations** and other required controls are not stringent enough to meet the water quality standards set by states. The law requires that states establish priority rankings for waters on the lists and develop **Total Maximum Daily Loads (TMDLs)**, for these waters. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still safely meet **water quality standards**.



Technology Based Effluent Limits TBELs

□ Beet Sugar Processing Point Source Subcategory

- 38 FR 22605 August 22, 1974
- 39 FR 4034 January 31, 1974
- Effluent Limitation Guidelines (ELGs)

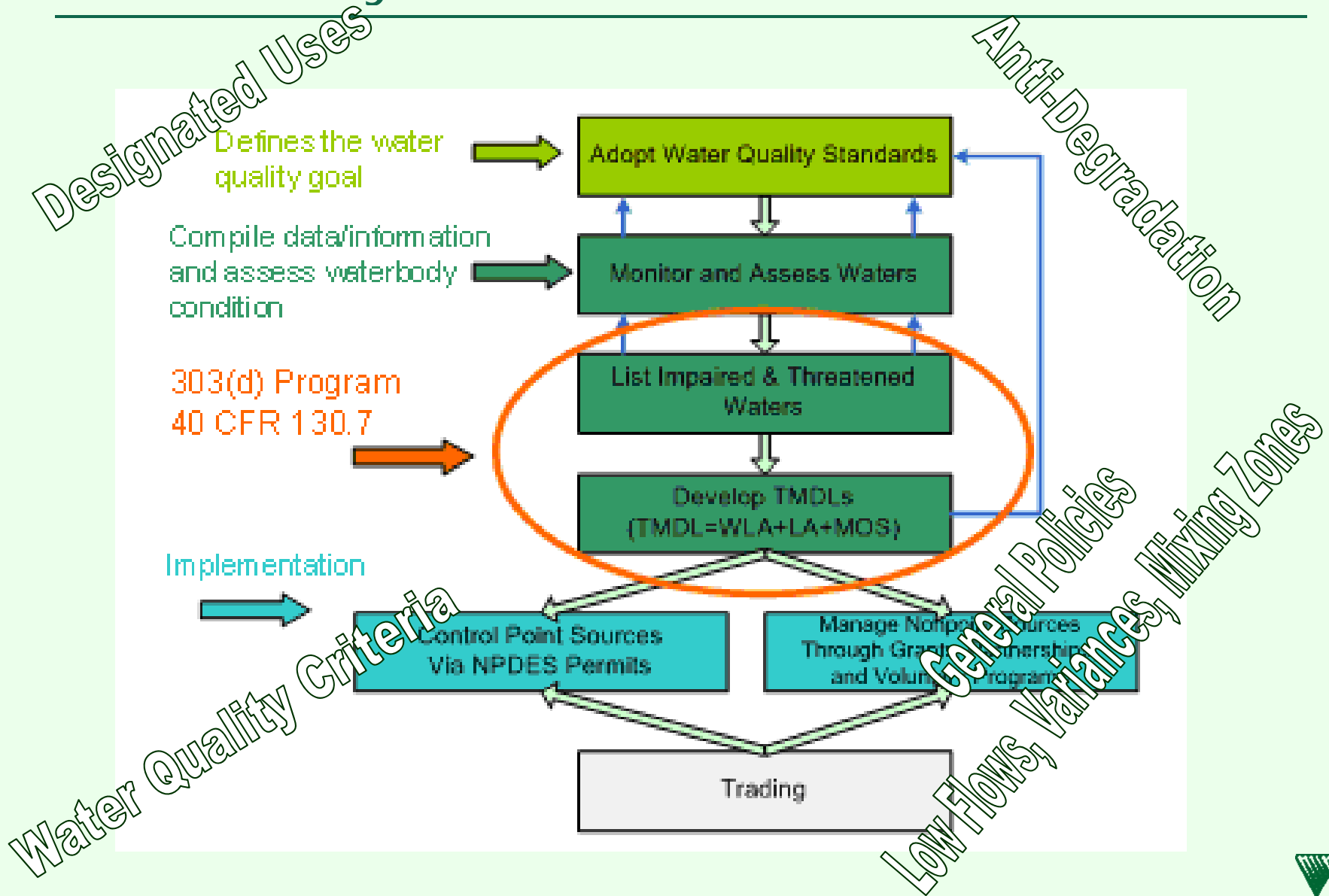
Example Barometric Condensing Operations Only

Parameter	Max Daily	Monthly Average
□ BOD5	3.3	2.2 lb/1000 lb sugar
□ pH	6.0 to 9.0	
□ Temp	90°F	
■ Barometric plus any other operation		
□ TSS	3.3	2.2 lb/1000 lb sugar
□ Fecal Coliform	400 cfu/100ml	





Water Quality Based Effluent Limits WQBELs



Increasing Stringency

□ Water Quality Based Limits

■ Default stream Classifications

- All Class III unless do Use Attainability Analysis (UAA)
- States reluctant to do UAAs
- Storm ditch is water of the state;
 - *An **ephemeral stream** has flowing water only during, and for a short duration after, precipitation events in a typical year*
 - Drain is water of state
 - Minimal or essentially no flow still protected



Increasing Stringency

- Billings



Increasing Stringency

□ Water Quality Based

■ Likely Impacts of Reduced Discharge Limitations

■ Additional Treatment / Modifications

- BOD₅
- Fecal Coliform / E Coli.
- Ammonia
- Dissolved solids/Conductivity
- Metals
- Toxicity
- Temperature

■ Ground Water

□ More likely to be included in NPDES

- EPA does not regulate yet
- States inconsistent
 - Standards



Increasing Stringency

- Where are we in 2011?
 - Reducing limits for many constituents
 - Increased emphasis by States & EPA
 - TMDLs
 - More coming
 - Additional wastewater treatment likely
 - Compliance schedules
 - Enforcement actions
 - Combined actions with groundwater, solid waste

