



Regional Stream Water Quality

Standards,
Inventories, Permits
and the City's Storm
Water Management
Program

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Agenda

- Clean Water Act
- Regulatory Framework
- Houston-Harris County MS4 Permit
- Update on City of Houston SWMP
(Storm Water Management Program)



Clean Water Act

- Restoration and maintenance of the chemical, physical and biological integrity of the nations waters
- Attain water quality which provides for:
 - protection and propagation of fish and wildlife, and
 - Recreation
- Water Quality Standards, Inventory and Programs (NPDES & TMDL)

Clean Water Act Regulatory Framework



- Water Quality Standards Program
 - Risk-based requirements for specific uses
 - Default in Texas is “contact recreation”
 - Non-contact recreation – limited applications (i.e., ship channels)
- Triennial Review
 - Mechanism to revise standards and uses

Clean Water Act Regulatory Framework



- National Water Quality Inventory
 - Biannual inventory of water quality in relation to:
 - concerns for public health,
 - fitness for use by aquatic species and other wildlife, and
 - specific pollutants and their possible sources
 - Texas 303(d) list of waterways impaired for one or more pollutant(s)
 - For certain impaired waterways, a TMDL must be established and implemented within a reasonable timeframe

Clean Water Act Regulatory Framework



- National Pollutant Discharge Elimination System (NPDES)
 - 1972 – permits required for point sources
 - 1987 – permits required for industrial stormwater and MS4
 - Agriculture remains exempted (except feedlots)
- TMDL
 - Required for certain impaired stream segments



Bacteria TMDLs

- 22 Watersheds with more than 120 stream segments
- More than 100 segments impaired for bacteria
- TMDLs currently underway for:
 - Clear Creek
 - Buffalo and White Oak Bayous
 - Houston Metro Watersheds
 - Lake Houston Watershed

Houston-Harris County MS4 Permit



- JTF Permit effect October 1, 1998
 - Years 1-3 focus on program development
 - Years 4-5 focus on implementation
 - Years 6-today continue implementation
- JTF filed for renewal in 2003
- TCEQ issued draft permit to public comment and EPA simultaneously
- EPA requested TCEQ to include provisions related to upcoming TMDLs and has provided additional comments

City of Houston Goal



It is the desire of the
City of Houston, the Bayou City,
to improve the quality of our
waterways, at a *minimum*,
to meet the State of Texas
Water Quality standards.



Benefits

- Enhances the environment and habitat for wildlife including the nation's largest migratory flyway
- Assures the public that using our bayous and waterways for recreation is "safe"
- Improves aesthetics and overall quality of life experience of residents and visitors
- Reduces the costs of the water purification process



City of Houston Approach

- Existing storm water quality activities are integrated into routine City operations (design standards, permitting and inspection programs)
- Update SWMP (11 Program Elements defined by CWA) to reflect on-going efforts
- Identify areas for efficiencies and enhancements within existing activities
- Identify areas that potentially require new or expanded activities or programs

Preventing Illicit Discharges



- Targeted screening instead of all outfalls each permit term
- Joint Department (PWE, Health, HPD) investigations
- Environmental Investigations GIS tool
 - Share active and historic information across Departments
 - Map, address, complaint, etc., search capabilities
- Corral the Grease Apartment Complex campaign
- Environmental Compliance Handbook



Infiltration of Seepage

- Agreed Order with TCEQ
 - Structural rehabilitation of collection system
 - Proactive cleaning and maintenance of lift stations
- Before/After monitoring in basins with planned rehabilitation
- Lake Houston OSSF conversion project

Public Education and Engagement



- Continued growth and publicity of 3-1-1 system
- Go Green Houston website (www.greenhoustontx.gov)
 - Environmental Compliance Handbook
- Corral the Grease Campaign
- Source Water Protection Education
- Water Works Museum at Northeast Drinking Water Production Plant
 - Opens Fall 2008
 - 27 Exhibits, auditorium, curriculum support

Bacteria Implementation Group



- Representatives on Bacteria Implementation Group (BIG)
 - Carol Ellinger – Municipal
 - Jason Iken – Houston Metro
 - Ceil Price – Buffalo and White Oak
- Alternates
 - Richard Chapin, Sam Metzger (Pasadena) – Municipal
 - Alex Van Keuren – Houston Metro
 - Linda Stice – Buffalo and White Oak
- City committed to work collaboratively to develop regional approach with identified responsibilities for implementation activities



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