Capacity, Management, Operations and Maintenance (CMOM)

Todd Running
Clean Rivers Program Manager
H-GAC’s Clean Waters Initiative

Effort to bring H-GAC’s diverse water quality programs together under one brand
• Clean Rivers Program
• Total Maximum Daily Load (TMDL)
• Water Quality Management Plan
• Watershed Protection Planning

Reach out to local stakeholders and provide educational opportunities on important issues for our region.
Past and Upcoming CWI Events

- Onsite Septic Systems – 8/7/08
- Managing Stormwater – 8/15/08
- Land Use Strategies to Improve Water Quality – 4/2/09
- Coastal Communities – 7/15/09
- Stormwater Education and Public Outreach – 8/11/09
- CMOM – 4/7/10
- Transect Model for Water Quality – 7/8/10
- Coastal Communities – 8/18/10

More to come! What would you like to see?
Why Are We Here Today?

Because Bacteria is a Growing Problem!

Bacteria Is The Number One Water Quality Problem in the H-GAC Area
## Summary of New Impairments

<table>
<thead>
<tr>
<th>Number of New Listings by Assessment Unit</th>
<th>In H-GAC CRP Area</th>
<th>Basin 9</th>
<th>Basin 10</th>
<th>Basin 11</th>
<th>Basin 13</th>
<th>Bays and Estuaries</th>
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<tbody>
<tr>
<td>New listings for Bacteria</td>
<td>189</td>
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<tr>
<td>New listings for Bacteria (Oyster Waters)</td>
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</table>
Bacteria Impairments in the H-GAC Area

Approximately 70% of Streams in the H-GAC Area are Impaired by Bacteria
Regional Coordinated Monitoring

- 8 local partners + TCEQ
- Over 330 Sites
- Monitored at Least Quarterly
- All Data Collected Under An Approved QAPP
Houston Metro TMDL - 2005
Lake Houston - 2007
How do we reduce bacteria levels from all of these different sources?
Select Appropriate Implementation Actions that will reduce Bacteria levels
Many Implementation Activities Identified

Major Sources of Bacteria and Potential Prevention Measures

Ten public workgroups designated by the BIG to assist in this process have identified about 150 potential activities that may decrease bacteria in the waterways. The examples provided here may have the most widespread application.

**Wastewater Treatment Facilities**
- Strengthen monitoring requirements and bacteria limits on effluent
- Consider and encourage regionalization of treatment facilities as appropriate
- Retrofit facilities not meeting current performance standards
- Improve design and operation criteria for new plants
- Allow unannounced inspections and more focused investigations by TCEQ inspectors
- Improve compliance and enforcement

**Sanitary Sewer System Sources**
- Implement management, operation, and maintenance programs that are currently voluntary (CMOM, the SSO Initiative)
- Identify and supply backup power supplies, quick connects and mobile generators, and/or overflow storage for lift stations
- Conduct fats, oils, and grease program (FOG), including proper sizing and design of grease traps, inspections, maintenance of grease traps, public education, inspection of transport logs
- Report system failures more quickly and evaluate penalty structure

**Onsite Sewage Facility Sources (Septic Tanks)**
- Inventory all septic systems
- Identify and address failing systems, especially old systems
- Implement repair and pump-out logs for homeowners

**Stormwater & Land Development Sources**
- Continue existing programs
- Petition TCEQ to facilitate reimbursement of bacteria reduction measures
- Model best practices (web library, meeting series)
- Adopt recognition program for developments that voluntarily incorporate bacteria reduction measures
- Encourage voluntary expansion of stormwater quality programs
- Offer circuit rider program

**Illicit Discharges & Dumping Sources**
- Monitor and control waste hauler activities
- Walk channels to detect, map, and eliminate direct discharges

**Construction Sources**
- Step up enforcement of existing erosion control requirements

**Residential Sources**
- Educate the public on appropriate disposal of Fats, Oils, and Grease, pet waste, landscaping practices, septic tanks, proper use of compost, etc.

**Agricultural & Animal Sources**
- Expand existing erosion control, nutrient reduction, and livestock management programs
- Manage feral hog population

- Over 150 IAs Identified
- 25 have Widespread Application
- Implementation of CMOM programs Identified as Important IA
Waste Water Treatment Facility
Service Areas in the H-GAC Region

- 800 Service Areas
- Estimated Flow = 750 MGD
- Permitted Flow = 1.3 BGD
Sanitary Sewer Overflows

Average 930 Reported SSOs Annually in the BIG Area

Average 4,660 Gallons Per Event
What Problems Do SSOs Present?

• Health Risks
  • Direct Contact
  • Contaminated Drinking Water
  • Inhalation
  • Shellfish Consumption

• Natural Resource Impacts
  • Algal Blooms
  • Lower Dissolved Oxygen Levels
  • Fish Kills

• Recreation
  • Beach Closures
  • Restrictions on Shellfish Harvesting

• Public and Private Property Damage
What You will Hear Today

• Jana Harvill, EPA - National Perspective on CMOM

• Lynley Doyen, TCEQ - SSO Initiative at the TCEQ

• Mike Cox, Texas City – Local Perspective on Sanitary Sewer Maintenance

• Q&A With Our Panel

• Aubin Phillips, H-GAC – Wrap up & Closing Comments
Enjoy The Workshop!

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