



STORMWATER MANAGEMENT : Design Workshop and LAN



Watershed Advisory Committee | August 30, 2011

AGENDA

1. Review process scope and products, MS4 permitting and role of the WAC.
2. Identify goals for the Stormwater Management Strategy.
3. Review schedule and public engagement plan for process.
4. Review Next Steps in process.



PURPOSE OF THE STORMWATER MANAGEMENT PROGRAM

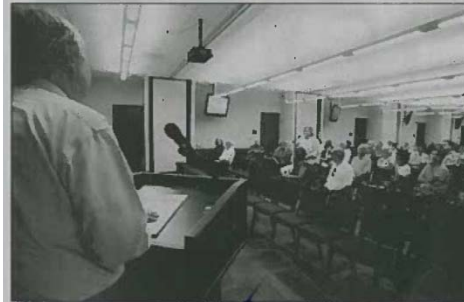
1. Public Concern Regarding Stormwater in New Braunfels
2. Stormwater Management Program
 1. Drainage Criteria Manual
 2. MS4 Permit



Photos by **LAURA McKENZIE**/Herald-Zeitung
Mark Hood, left, and Dwight Mickelthwait look at a map of City Council district 3 highlighting areas affected by the June 9 flood.

Concerns Responses

A LOOK AT ISSUES RAISED BY RESIDENTS DURING THE DRAINAGE MEETINGS



Photos by **LAURA McKENZIE**/Herald-Zeitung
Hundreds of New Braunfels residents attended the four drainage meetings conducted by the city last week.



PURPOSE OF THE STORMWATER MANAGEMENT PROGRAM

1. Provide the public process needed for the MS4 permit and demand from public.
2. Build consensus around stormwater strategies
3. Introduce state-of-the art, innovative stormwater solutions
4. Integrate regionally specific stormwater management solutions to the drainage control manual

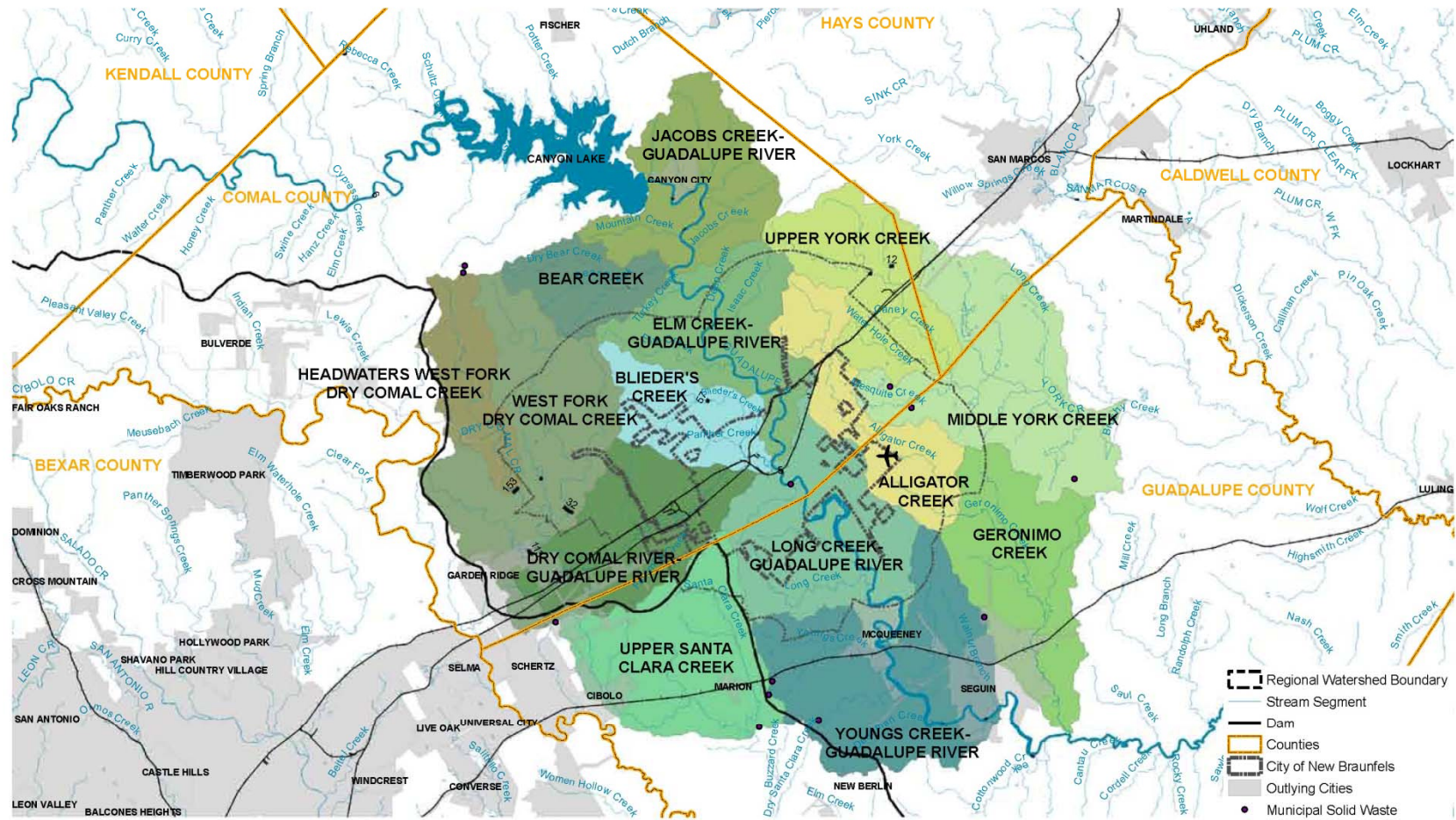


PROPOSED SCOPE

- **Phase I:** Kick off, Goals, Inventory and Analysis
- **Phase II:** Community Outreach, Engagement and Information
- **Phase III:** Conceptual Recommendations for Stormwater Management
- **Phase IV:** Improvements for Stormwater Management



STUDY AREA BOUNDARY



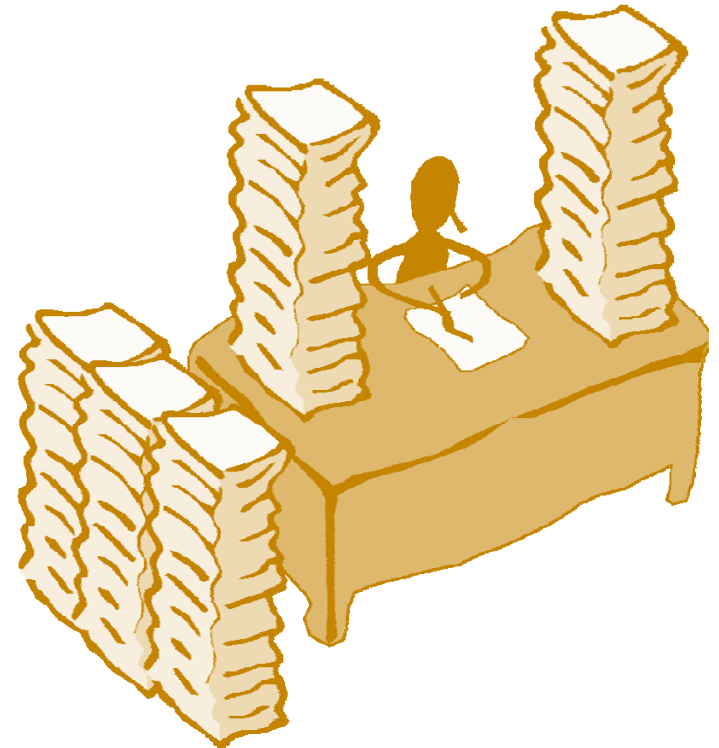
PRODUCTS FROM THIS PROCESS

- Stormwater Management Program
 - Public Process
 - Alternatives for Stormwater Management
 - Stormwater Management Program and Tools
 - Updated Drainage Criteria Manual as a tool to implement Stormwater Management Program
- MS4 Permitting
 - Public Process
 - Minimum Control Measures
 - Schedule for Implementation



MUNICIPAL SEPARATE STORM SEWER (MS4) PERMITTING

- EPA regulation, delegated to TCEQ to administer
 - Phase II MS4 General Permit, TXR040000 – issued Aug 13, 2007
- Phase II (small) = communities less than 100,000
- Regulated small MS4s located in Urbanized Area (UA)
 - UA = 50,000 people or more with density of 1,000 people per square mile
 - 2000 Census: New Braunfels = 36,494 people with 1,248 people per square mile
 - 2010 Census: New Braunfels = 57,740 people, approximately 1,977 people per square mile
- 2007-2012 5-year permit period for first round of Phase II MS4s
- 2012-2017 will be second 5-year permit period
 - Aug 12, 2011 + 180 days (Feb 12, 2012) is City deadline for NOI and SWMP to TCEQ



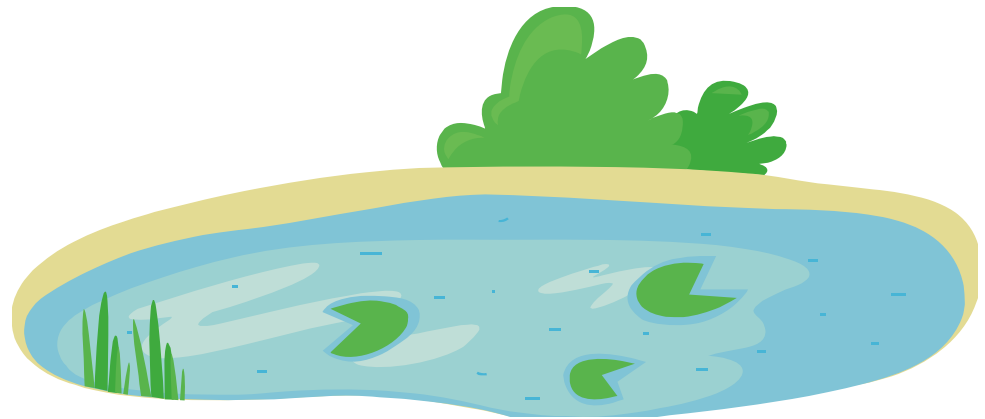
MUNICIPAL SEPARATE STORM SEWER (MS4) PERMITTING

■ What are Phase II (small) MS4 Program Requirements?

- Reduce Discharge of Pollutants to the “maximum extent practicable” (MEP)
- Protect Water Quality
- Satisfy appropriate Water Quality Requirements of the Clean Water Act

■ How? Six Minimum Control Measures (MCM)

- Public Education and Outreach
- Public Participation / Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention / Good Housekeeping



MUNICIPAL SEPARATE STORM SEWER (MS4) PERMITTING

- How exactly?
 - Develop Stormwater Management Program (SWMP)
 - Submit SWMP plan to TCEQ for approval (by Feb 12, 2012)
 - For each MCM:
 - Establish Measureable goals, over 5 year period
 - Evaluate / Assess Efforts to Meet Goals
 - Maintain Records
 - Establish a Schedule
 - 5-year implementation plan (2012-2017)
 - Meet MEP Standard (“maximum extent practicable”)
 - Iterative approach; built-in flexibility
 - Annual SWMP Reporting Requirements - plan changes allowed, subject to approval



ROLE OF THE WAC

- Review Findings of Documents: Phase I, II and III Reports, Alternatives, Storm Water Management Program, Drainage Control Manual and MS4
- Participate in Stakeholder Workshops: September, October, November
- Help get the word out in the community about the project and public input opportunities
- Educate key stakeholders on the project and process
- Advise staff, consultants and City Council about process and final outcomes of the project



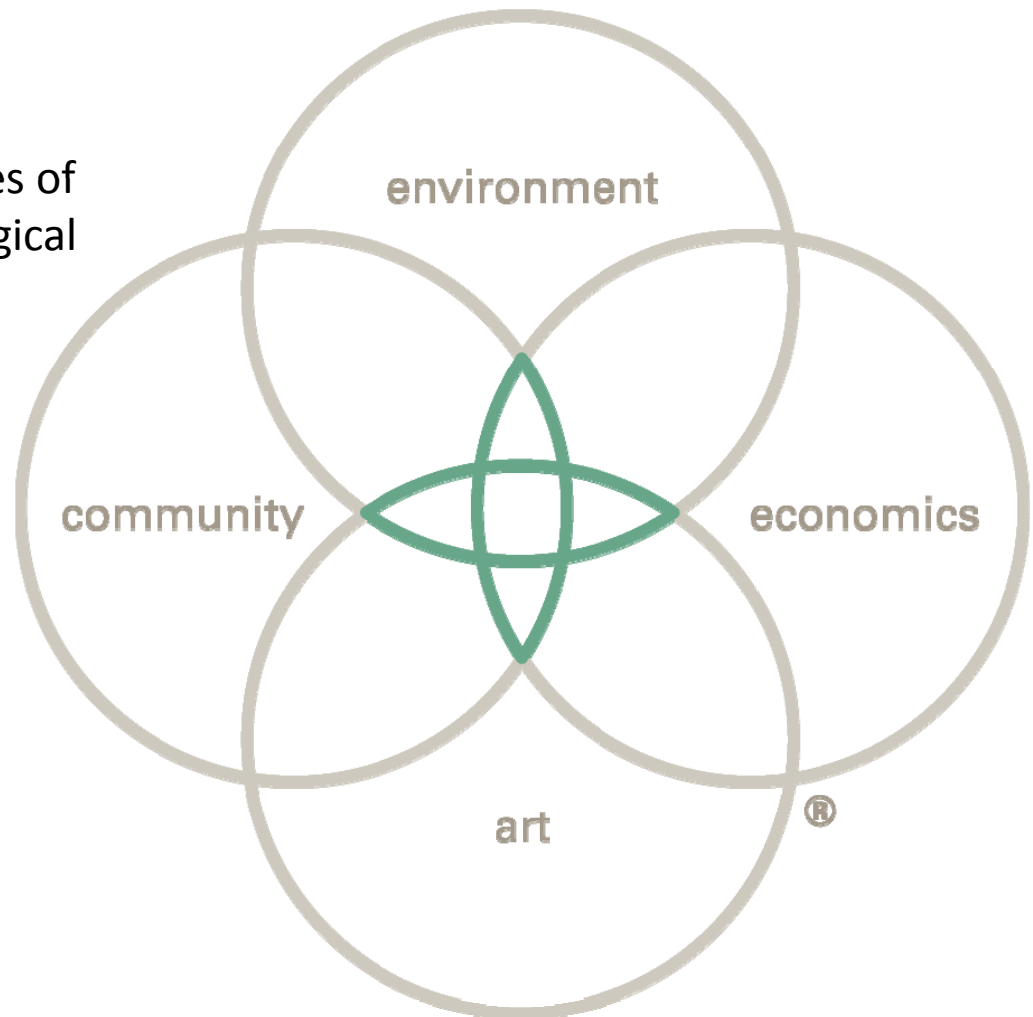
PHASE I REPORT

- Culmination of Initial Project Background Information
 - Kick Off with City
 - Kick Off and Site Tour with WAC
- GOALS AND METRICS
 - In absence of the WAC, the Design Workshop Team took a first attempt at goals and metrics based on previous documents, conversations with staff and consultation with technical experts. We will spend time today discussing in detail.
- Mapping with GIS
- Code and Previous Watershed Studies Review
- Detailed Drainage Criteria Manual Review



DESIGN WORKSHOP PHILOSOPHY TO GOALS AND METRICS

- We believe that when environment, economics, art and community are combined in harmony with the dictates of the land and the needs of society, magical places result.
- Places that lift the spirit.
- Sustainable places of timeless beauty, enduring quality and untold value.



ENVIRONMENT

- Integrated human and ecological function
- Multi-scale from regional to site specific
- Protection of sensitive landscapes



COMMUNITY

- Integrated into the community
- Protection of community investment
- Recognition of community values



ECONOMICS

- Investment that adds value
- Long term lifecycle costs/maintenance
- Attraction for community development



COMMUNITY

- Creating a sense of place
- Connecting to the character of a region
- Integrating aesthetics/creativity in the design/installation



STORMWATER MANAGEMENT PROGRAM

- Goals and Metrics
 - What should be the goals of the Stormwater Management Plan?
 - Review of Goals from Phase I Report
 - Addition or Removal of Goals
 - Changes in wording or metrics



PUBLIC PROCESS AND SCHEDULE

- Public Process
 - For both Stormwater Management Program and MS4 Permitting Requirements
 1. Stakeholder Focus Groups – October 3 & 6
 - Confirm concerns and comments from previous stormwater meetings, present information on Best Management Practices
 2. Stakeholder Focus Groups – November 7
 - Share finding from previous focus groups and present initial stormwater management concepts
 3. Stakeholder Focus Groups – December 13
 - Convey conceptual recommendations before moving forward with final stormwater management program.



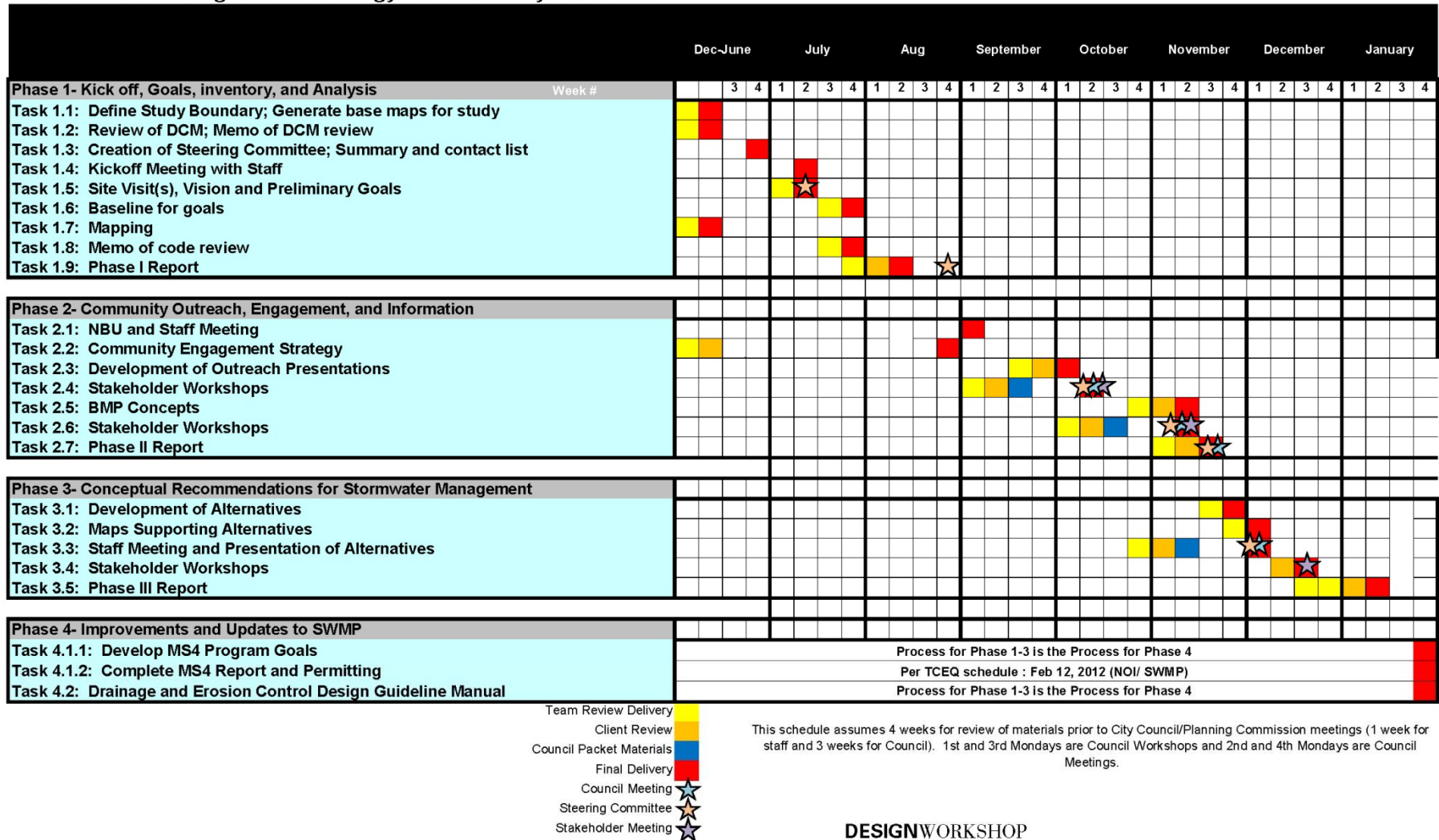
What is your favorite water activity to cool off?

14%	1.	Floating the River
14%	2.	Swimming
14%	3.	Kayaking
14%	4.	Boating on the Lake
14%	5.	River Hiking
14%	6.	Other
14%	7.	None of the above. (I enjoy the Texas heat.)



PRELIMINARY SCHEDULE

Stormwater Management Strategy - Preliminary Schedule



PUBLIC PROCESS AND SCHEDULE

- WAC Review Schedule
 - Process Tasks and Meetings WAC will be part of:
 - Stakeholder Lists of Participants – provide by 09/07/11
 - Stakeholder Focus Groups 1 – October 3
 - Findings from Stakeholder Focus Groups 2 – November 7
 - Phase II Report – November 15
 - Draft Conceptual Recommendations from Alternatives – December 5
 - Final Draft Plan - January
 - MS4 Permitting Program Elements - January



NEXT STEPS

- Phase I Report Comments
 - Update Phase I Report with WAC comments.
- Education
 - Develop a public education program and Stormwater Management 101 power point for placement on city website.
- Stakeholder Meetings
 - Work with WAC to create list of stakeholders who should be included in the process.
 - Create a Best Management Practices power point for stakeholder meetings.
 - Finalize Stakeholder Focus Group meeting dates



NEXT STEPS FOR THE WAC

- Phase I Report Comments
 - Provide City with written comments by 09/07/11.
- Stakeholder Meetings
 - Provide City with list of potential individuals or groups to contact for Stakeholder Focus Groups by 09/07/11.
- City contact: Amy Rogers | arogers@nbtexas.org





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