



STORMWATER MANAGEMENT : Design Workshop and LAN



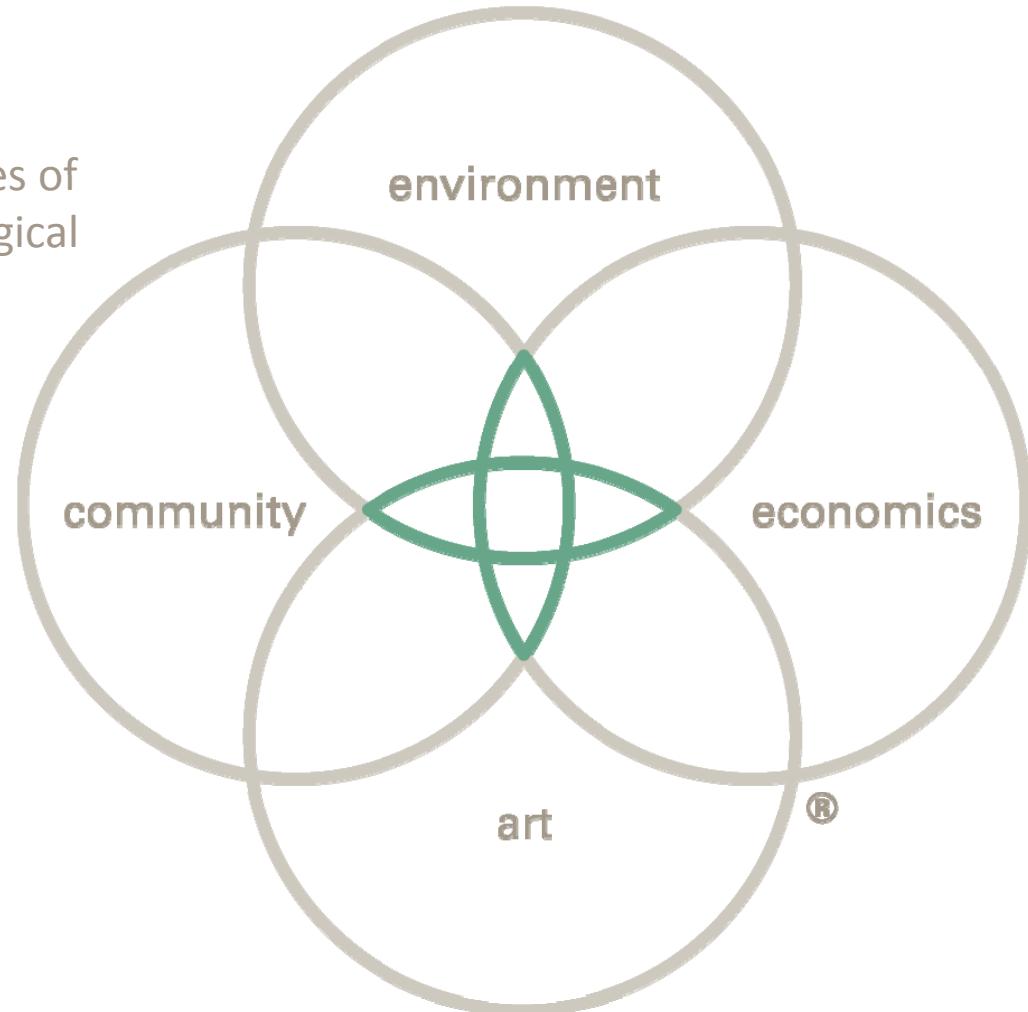
Watershed Advisory Committee | July 12, 2011





PHILOSOPHY

- 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



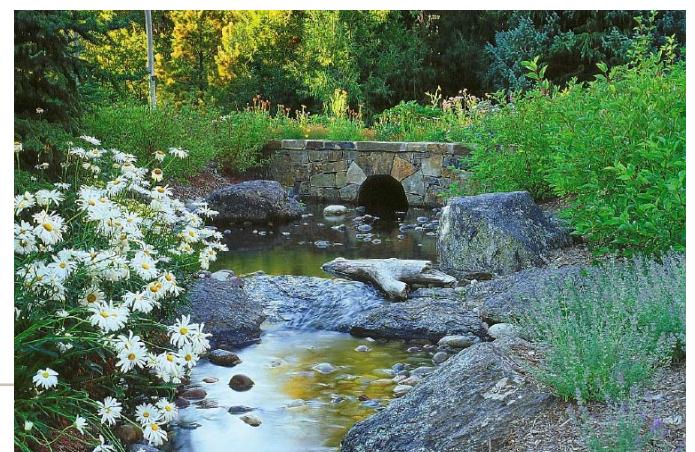
ECONOMICS

- 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



PURPOSE OF THE STORMWATER MASTER PLAN

1. Provide the public process needed for the MS4 permit
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



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



PRELIMINARY SCHEDULE

Stormwater Management Strategy - Preliminary Schedule

	December	January	February	March	April	May	June	July	Aug	September	October	November	December
	3	4	1	2	3	4	1	2	3	4	1	2	3
Phase 1- Kick off, Goals, inventory, and Analysis													
Task 1.1: Define Study Boundary; Generate base maps for study			1	2									
Task 1.2: Review of DCM; Memo of DCM review													
Task 1.3: Creation of Steering Committee; Summary and contact list													
Task 1.4: Kickoff Meeting with Staff													
Task 1.5: Site Visit(s), Vision and Preliminary Goals													
Task 1.6: Baseline for goals													
Task 1.7: Mapping													
Task 1.8: Memo of code review													
Task 1.9: Phase I Report													
Phase 2- Community Outreach, Engagement, and Information													
Task 2.1: NBU and Staff Meeting													
Task 2.2: Community Engagement Strategy													
Task 2.3: Development of Outreach Presentations													
Task 2.4: Stakeholder Workshops													
Task 2.5: BMP Concepts													
Task 2.6: Stakeholder Workshops													
Task 2.7: Phase II Report													
Phase 3- Conceptual Recommendations for Stormwater Management													
Task 3.1: Development of Alternatives													
Task 3.2: Maps Supporting Alternatives													
Task 3.3: Staff Meeting and Presentation of Alternatives													
Task 3.4: Stakeholder Workshops													
Task 3.5: Phase III Report													
Phase 4- Improvements and Updates to SWMP													
Task 4.1.1: Develop MS4 Program Goals													
Task 4.1.2: Complete MS4 Report and Permitting													
Task 4.2: Drainage and Erosion Control Design Guideline Manual													
Team Review Delivery													
Client Review													
Council Packet Materials													
Final Delivery													
Council Meeting													
Steering Committee													
Stakeholder Meeting													
This schedule assumes 4 weeks for review of materials prior to City Council/Planning Commission meetings (1 week for staff and 3 weeks for Council). 1st and 3rd Mondays are Council Workshops and 2nd and 4th Mondays are Council Meetings.													
DESIGN WORKSHOP													



ROLE OF THE WAC

- Review Findings of Documents: Phase I Report, Alternatives, Storm Water Management Plan MS4 and Drainage Control Manual
- 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





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