



American Public Works Association
Kansas City Metropolitan Chapter



MARC

Mid-America Regional Council

January 2001

REGIONAL WATERSHED/STORM WATER PLANNING AND MANAGEMENT PROGRAM

Purpose

The Regional Watershed/Stormwater Planning and Management Program is designed to promote cooperation among communities across the region in addressing stormwater management, non-point source pollution, and related water quality problems. This program, sponsored by the American Public Works Association (APWA) and the Mid-America Regional Council (MARC), represents a consensus among local government public works and planning officials from around the region on joint actions for improved watershed planning and storm water management in metropolitan Kansas City.

Background

Local governments have discussed possible regional cooperation for storm water management for over 20 years, and have initiated joint efforts for state legislation, county funding, planning and information sharing. Major floods have occurred with regularity in the metro area since 1977, with the last major event in October of 1998. Despite the expenditure of millions of dollars to address storm water, loss of life and property damage has continued to occur in recent years.

A group of local officials known as the Metro Flood Coalition began discussions of regional solutions following the 1998 flooding. The APWA Water Resource Management Committee was asked to provide assistance to that coalition, and initiated dialogue on regional storm water-related issues. In 1999, MARC sponsored four workshops to heighten awareness among local government leaders, engineers, and planners about alternative approaches to watershed management and water resource planning. These efforts were very well received and helped change the tenor of discussions around the region. The consensus among participants in these efforts is that conventional storm water management practices are not sufficient and improvements are needed.

The Action Plan

During a series of four APWA/MARC-sponsored forums, planning and public works directors from around the region participated in drafting a regional watershed/storm water management plan. The group agreed upon three principles that guided them through the process:

- Storm water should be viewed as a regional asset.
- Protection of the region's natural environment is an important overall goal.
- Local communities must change current practices to effectively address storm water within their jurisdictions and throughout the region.

In the resulting action plan, the group established shared goals and organized a committee structure to work toward these goals. During the fourth and final forum on January 5, 2001, participants agreed upon these five goals for the regional program:

Goal 1: Identify and engage local political leaders in the development and implementation of a regional watershed and management program for Metropolitan Kansas City. Political leadership is important to any successful effort, and a plan needs to be created and implemented to include community leaders in the process of regional storm water management.

Goal 2: Develop a coordinated regional stormwater/watershed management system for metropolitan Kansas City through consistent performance standards. Recognizing that for a coordinated effort to succeed, communities across the metropolitan area need to have a common vision and plan, and share information using the same methods and model approaches to maintenance and operation, monitoring, and assessment and evaluation of completed projects.

Goal 3: Coordinate watershed and land use planning throughout the metropolitan area at the regional and local levels. The relationship between land use and water resources needs be acknowledged in community planning, looking toward non-structural watershed-based alternatives to capture storm water runoff and improve water quality.

Goal 4: Incorporate “Best Management Practices” into the Scope of Services for storm water/watershed studies. Identify and develop shared language and resource materials to define and guide local and regional efforts in a systems approach.

Goal 5: Increase public awareness of the need for regional solutions and the concept of “Best Management Practices.” Create and expand existing public outreach programs to increase understanding of watershed-based approaches.

Next Steps

During the fourth MARC/APWA meeting held on January 5, 2001, participants discussed specific roles and responsibilities for proceeding with the action plan. It was agreed by those present that MARC would take the lead in convening policy and advisory committees. The APWA, public works departments, planning departments, appropriate state and federal agencies, and the consulting community will all play important roles in these committees. In addition, key stakeholders including homebuilders, developers, environmental groups, and citizens will be asked to provide input and feedback, and participate on task forces.

A **Policy Committee** will be composed of locally elected officials with an interest in storm water from around the region. An **Advisory Board** will include area public works and planning directors, focus area coordinators, and chairs of the APWA Joint Cooperative and Water Resources Management Committees. An Executive Committee of the Advisory Board will provide for regular communication and guidance. The advisory board will identify priority issues for task force work, determine ways for better coordination of project implementation, provide access to data, establish means for ongoing communication, and foster facilitation and coordination of research.

The advisory board will oversee task forces organized around three focus areas, including:

- **Project Standards and Development Standards Focus Area** will support the development of performance standards for storm water projects to be adopted by local jurisdictions across the region.

This focus area will also be involved with the preparation of model development standards and ordinances for local government adoption to promote non-structural solutions to storm water management.

- **Communication, Awareness and Education Focus Area** will be responsible for communication and education efforts to increase awareness of the importance of regional solutions, the meaning of “Best Management Practices” and the efforts of the regional storm water program overall. This focus area will also be responsible for technical workshops and technical materials to inform local government and consultants.
- **The Watershed Planning and Projects Focus Area** will be responsible for devising a coordinated regional watershed plan for implementing storm water management solutions across jurisdictional boundaries. Through this focus area, major, inter-jurisdictional storm water projects will be identified and coordination provided.

Expected Outcomes

The expected outcomes for this initiative may be modified as the plan is refined and elected leaders become involved, but at present include:

- Greater community understanding of the need for a regional approach to storm water management
- Greater understanding of the relationship between storm water runoff and water quality
- Greater recognition of storm water as an ecological resource rather than an engineering problem.
- Preservation of natural drainage ways as community assets.
- Greater degree of conformity among local development standards.
- Ability and commitment to implement Best Management Practices.
- Increased partnering among jurisdictions to address major storm water projects.
- Adoption of conservation design development regulation to reduce storm water runoff.
- Greater connection between watershed and land use planning at the local level.
- More cost-effective approaches to flooding and storm water management.

Possible Action Plan Steps for Policy and Advisory Board consideration

Coordinated regional watershed and environmental management system action steps:

1. Create a **vision statement** and seek adoption by communities in the region to incorporate implementation objectives into inter-local agreements.
2. Develop **guiding principles** for regional storm water management projects
3. Develop **performance standards** for storm water projects to be adopted by local jurisdictions across the region
4. Devise a **coordinated regional watershed plan** for implementing storm water management solutions across jurisdictional boundaries among communities with different cultures, histories in storm water management and natural resources.
5. Develop a consistent method for the **assessment and evaluation** of completed projects.
6. **Coordinate efforts** with sanitary sewer districts and water districts as well as the Corps of Engineers and other federal and state officials to plan and complete storm water management improvements on a regional basis.

7. Evaluate the need for *joint monitoring*, and if appropriate, coordinate joint efforts.
8. Develop *model approaches to maintenance and operation* of improvements.

9. Following advice from a technical committee and study of the issues, recommend a *funding plan* for implementation of regional solutions.
10. Support *state legislative changes* in Missouri and/or Kansas to allow implementation of regional approaches to storm water management.

Watershed and land use planning coordination action steps:

1. Gain *local commitments* to conduct planning at the watershed level and to recognize storm water planning early in land use evaluation and planning.
2. Promote *nonstructural solutions* for land management programs.
3. Conduct *technical workshops* throughout the region regarding the importance of coordinating watershed and land use planning.
4. Promote storm water planning and project implementation as a system to *erase jurisdictional boundaries*.
5. Gear all action toward *improving the environment* and raising residents' standard of living, *recognizing the diversity* of communities throughout the metro area.
6. Develop models and encourage local communities to *revise their ordinances* to promote nonstructural solutions to storm water.
7. Increase *technical assistance* in the region.
8. Coordinate the *completion of watershed studies* for the region with advice from the technical committee to encourage more regional solutions.

"Best Management Practices" action steps:

1. Develop and maintain *resource materials*, including cost-benefit analyses and case studies with specific solutions.
2. *Compare individual Scopes of Services* on projects to see what's common, what's missing, and what needs to be revised. Include the engineering community in developing scope language. The language should be used as a guide for jurisdictions in the region.
3. Develop a set of *development standards* applicable across jurisdictional lines.
4. Define a *minimum standard flood event*.
5. Create *common mapping* within the region and develop a common vocabulary and model ordinances applicable across state lines. Knowledge of each other's resources is helpful.
6. Promote a *systems approach* to storm water management.

Public awareness action steps:

1. Develop a *communication plan* targeting mayors, city managers, and county administrators, governing bodies, other elected officials, planning commissioners, community development corporations, and neighborhoods.
2. Increase *public awareness* of storm water as a *system*, and create a *public outreach program* that can be shared among communities and jurisdictions within the region. Coordinate public awareness efforts with

existing programs and organizations, building on the Creating Quality Places project currently underway at MARC.

3. Develop *outreach programs* targeted to specific audiences, including a more technical program for the development and engineering community; a policy-oriented program for local government officials; a program for the general public answering the question “What can they do?,” and a program for the corporate business community.
4. Work with area institutions of higher education to make storm water training required in engineering and planning *curricula*.
5. Develop a *common understanding* of ‘Best Management Practices.’”

The Standards/Development Standards Focus Area

Task Forces will provide the technical expertise to develop performance standards for storm water projects to be adopted by local jurisdictions across the region. Their work would also result in a set of development standards applicable across jurisdictional lines and model ordinances that promote non-structural solutions to storm water management. An important task in developing standards is to define a minimum standard event and common vocabulary for storm water.

Under this focus area, base information will be gathered for a “storm water solution” database including successful project case studies and cost benefit analyses. As part of the data collection, a common mapping system will be developed for the region as a resource to communities. Finally, the need for joint monitoring will be evaluated, and if appropriate, plans will be developed to implement a regional monitoring program.

The Communication, Awareness and Education Focus Area

Task forces will be responsible for communication and education efforts within the region to increase awareness of the importance of regional solutions, the meaning of “Best Management Practices” and the efforts of the regional storm water program overall. It is important to consider both intra-jurisdictional and inter-jurisdictional approaches as well as establishing public outreach programs. Specific products would likely include:

- A plan for technical workshops throughout the region.
- A directory of technical assistance resources
- Outreach programs targeting specific audiences
- Curricula suggestions for institutions of higher education to encourage and guide storm water training to approach problems with regional solutions and promote non-structural solutions where appropriate.

The Watershed Planning and Projects Focus Area

Under this focus area, coordinated regional watershed planning will be conducted to implement storm water management solutions across jurisdictional boundaries among communities with different cultures, histories in storm water management and natural resources. A primary goal will be to erase jurisdictional boundaries in regional planning efforts. To accomplish this, the task force will likely need to compare individual scopes of services on projects and include the engineering community in their deliberations. This group would also be responsible for coordinating regional efforts with sanitary sewer district, water districts, the Corps of Engineers and other federal and state officials. With respect to project coordination, this task force should serve as a

clearinghouse for the sharing of information related to current improvement projects. Another important product of their work will be development of a consistent method for the assessment and evaluation of completed projects.

For more information, contact Scott Paszkiewicz, Environmental Planner, at Mid-America Regional Council, 816/474-4240.