

The following section provides information related to:
 Element E. Information and education component used to enhance
 Public understanding of the plan

3. EDUCATION AND OUTREACH PLAN

Education and outreach measures were developed and compiled by the stakeholder led E&O Subcommittee, and were approved by the stakeholder committee. The efforts and programs outlined will be used to enhance public understanding of watershed protection activities and to encourage participation of citizens, students, businesses, and decision makers in implementing pollution prevention measures. Additional measures and efforts will be identified over time and it is anticipated that new partnerships will arise, bringing additional resources to the watershed. This document provides a thorough list of planned efforts but is not exhaustive.

Education and Outreach Strategy

The Upper San Marcos WPP E&O Plan was developed by the stakeholder E&O Subcommittee. Stakeholders, entities engaging in local watershed outreach, E&O experts, and members of the public all contributed to this plan.

Because there are many concurrent educational efforts happening in the watershed, activities that promote educational goals for the WPP, EAHCP, and Code SMTX were prioritized.

These efforts are likely to be funded and implemented to promote consistent, science driven messaging across the watershed. E&O components will be aligned to the extent possible with current MS4 activities, although efforts and funding source will be kept separate.

Education and Outreach Plan, Goals, and Target Audiences

The purpose of the E&O Plan is to define the Upper San Marcos River Community’s E&O goals and objectives for the WPP. Plan goals and target audiences are shown in Table 3.1.

Table 3.1 E&O Plan Goals and Audience

E&O Plan Goals	E&O Plan Target Audiences
Increase public awareness	Community at large, including tourists and students
Increase community engagement	Homeowners/landowners and business owners
Educate and support decision makers	Business owners
	Government/Education

Educational activities and BMPs will be targeted toward audiences identified as most in need. Cost and responsible parties for implementing E&O activities in the first three years have been identified. Some activities have been identified for years four through ten and it is likely that, through adaptive management, additional activities, efforts, programs, and measures will be identified and implemented. Additional activities are described in the E&O Plan and will be developed during updates to the WPP. Measures to be implemented in year one through ten are summarized in Table 3.2.

Table 3.2 E&O Implementation Plan Activities

E&O Topic	Responsible Party	Estimated Cost	Number Implemented in Years 1-3	Number Implemented in Years 4-10	Total Cost, Year 1-3 *Price for years 4-10 to be determined
A. Events					
Workshops	GBRA, TCEQ, TSSWCB, Texas A&M AgriLife Extension Service, Meadows Center, COSM, Hays County, SMRF, Mermaid Society, HCA, NGOs and community groups	\$2500	8	14	\$20,000
Stakeholder Meetings	Stakeholder Committee, Watershed Coord	\$0	12	7	\$0 (in kind donations)
Smart Growth and Nonpoint Education for Municipal Officials (NEMO) Workshop for Elected Officials	Texas A&M AgriLife Extension Service, Stakeholder Committee, COSM	\$5000	6		\$30,000
Household Hazardous Waste and Brushy/Bulk Waste Drop off Days; Add a 3rd drop off station for Hays County by year 5	COSM, Hays County	\$5000; New station - TBD	3	7	\$15,000 New station - TBD
Watershed Awareness Week	COSM, Texas State University, Hays County, Stakeholder Committee, Watershed Coord	\$7,500	1 in year 3	7	\$7,500
Community Cleanups	COSM, Texas State University, TST, GBRA, SMRF, SMGA, Private Industry	\$2000	6+	14+	12,000
Watershed protection activities (speakers, films, etc) added to annual Mermaid Festival and events	COSM, Mermaid Society, Meadows Center	\$5000	2	7	\$10,000
B. Print Materials and Website					
Website	Stakeholder Committee, Watershed Coord	\$1,000	Ongoing (3 years)	Ongoing	\$3,000
New and existing brochure and printed materials (including printing costs)	GBRA, COSM, Texas State University, Meadows Center, Texas A&M AgriLife Extension Service, TCEQ, TSSWCB, Watershed Coord	\$1,000	6	As needed	\$6,000
Bumper Stickers	Stakeholders Committee, Watershed Coord	\$1,000	3	7	\$3,000

E&O Topic	Responsible Party	Estimated Cost	Number Implemented in Years 1-3	Number Implemented in Years 4-10	Total Cost, Year 1-3 *Price for years 4-10 to be determined
LID, green infrastructure and BMP E&O manual and supporting materials (to be customized from existing resources)	COSM, Hays County, The Meadows Center, Watershed Coord, EAHCP	\$10,000	1	3 updates	\$10,000
Watershed Tours and supporting materials (volunteer led and self-guided)	Texas State University, NGO, The Meadows Center, COSM, Hays County	\$10,000	1 self-guided, ongoing monthly	ongoing	\$10,000
Utility Bill Inserts	COSM, Watershed Coord	\$5,000	3	7	\$15,000
Citizen Online Training	GBRA, The Meadows Center	\$500	6	14	\$3,000
Public Service Announcements (PSAs)	COSM, Texas State University, The Meadows Center, SMRF	\$500	3	7	\$1,500
C. Physical Outreach Tools and Campaigns					
Tributary and Watershed Roadway Signs	COSM, Hays County, Stakeholder Committee	\$200/sign	26	Replacement as needed	\$5,200
Banners and signage relating to nonpoint source (to be installed along the river, in town, on-campus)	COSM, Texas State University, The Meadows Center, Watershed Coord	\$3,000/yr	3	7	\$9,000
Pet Waste Stations (Installation and maintenance of additional)	COSM, Texas State University	\$4500	3	Replacement as needed	\$13,500
Watershed model demonstrations	EAHCP partners, The Meadows Center	Volunteers using existing models,	3	Replacement as needed	\$0
New LID demonstration model	EAHCP partners, The Meadows Center	LID model \$7,500	1	Replacement as needed	\$7,500
Kiosk (7 existing with new inserts made, 2 years)	EAHCP partners, COSM, Stakeholder Committee	\$3,500	2	Replacement as needed	\$7,000
Kiosk (7 existing with new inserts made, 2 years)	EAHCP partners, COSM, Stakeholder Committee	\$3,500	2	Replacement as needed	\$7,000
EcoBiz program for light industry.	GBRA, COSM, The Meadows Center, Stakeholder Committee	\$20,000 in year 3;	Ongoing (after year 3)	Ongoing (approximately \$5000 annually)	\$20,000

E&O Topic	Responsible Party	Estimated Cost	Number Implemented in Years 1-3	Number Implemented in Years 4-10	Total Cost, Year 1-3 *Price for years 4-10 to be determined
Watershed Wise Business Campaign	COSM, The Meadows Center, Stakeholder Committee, Chamber of Commerce	\$12,000 in year 3	Ongoing (after year 3)	Ongoing (approximately \$5000 annually)	\$12,000
Watershed Education Programs for schools	GBRA, The Meadows Center, COSM, SMRF, Mermaid Society, NGOs, community groups and other partners	varies	3+	20+	varies
Establish Watershed Learning Center at Spring Lake	GBRA, The Meadows Center, COSM, SMRF, Mermaid Society, NGOs, community groups and other partners	TBD	1	n/a	TBD
TST and the San Marcos River Rangers	TST, The Meadows Center and SMRF	\$10,000+	--	--	\$30,000+
Local and regional water-based education and protection events	All stakeholders and Watershed Coordinator	varies	3	7	varies

Description of Activities

Events

Workshops

Half to full day workshops will focus on topics such as water quality protection, water conservation, LID, land conservation, and BMPs for stormwater treatment. Examples include:

- ✓ Xeriscaping, grow green, yard wise, urban prairies
- ✓ BMP workshop for homeowner associations and apartment management
- ✓ Groundwater protection strategy (land conservation, water well plugging)
- ✓ Texas Watershed Steward Program
- ✓ LID for homeowners
- ✓ Texas Well Owner Network
- ✓ Texas Stream and Riparian Education Program
- ✓ Water quality monitoring

Press releases, newspaper notices, and direct mailings will be used to attract interested individuals to the workshops. The workshops will be funded through a variety of sources including the Texas A&M AgriLife Extension Service, the TSSWCB, GBRA, and other grants.

Stakeholder Meetings

The WPP Stakeholder Committee will continue to meet quarterly during implementation. Meetings will be announced via email and through the project website. These meetings will be open to the public and will be an opportunity for collaboration and updates. The meetings will focus on implementation project status updates, issues to resolve, and new ideas for collaboration. They will be hosted by non-profit/NGO entities, using in-kind services.

Smart Growth and Nonpoint Education for Municipal Employees (NEMO) Program Workshops for Elected Officials

Smart Growth workshops and NEMO for City, University, and County officials will be used to educate community leaders on the effect of rapid urbanization on the watershed including flooding and water quality issues. Watershed tours will be included to raise understanding the role of using LID to reduce runoff, stream bank erosion, and flooding. Additional information and training for municipal employees and elected officials will be created on an as needed basis and will include regular updates regarding WPP, WQPP, and EAHCP efforts. Information and materials will be made available to University employees and, at a future date, a University employee training program will be developed.

Household Hazardous Waste/Bulk and Brushy Waste Drop off Days

There are existing daily drop off locations in the COSM for household hazardous wastes (HHW) and spent pharmaceuticals and quarterly drop off locations for combined household hazardous waste, brush, and bulky waste. These locations are well advertised in the local newspaper and COSM website. The COSM and Hays County also hold an annual HHW event. The County operates two recycling and solid waste fixed stations on the west side of the county in Wimberley and Driftwood. Additional efforts to encourage proper disposal and additional “drop off days” will be added on an annual basis, depending on funding. Funding will also be sought to open a third station on the east side of the county near Kyle to provide additional recycling and solid waste serviced for rural residents.

Watershed Awareness Week

Watershed Awareness Week is a project envisioned by Texas State University and the COSM for their second cycle of the MS4 permit (2018-2023). Initially the concept was stormwater awareness, but with the combined efforts of the WPP and EAHCP, the event can encompass a watershed theme. The week will include contests, pet waste demonstrations, litter cleanups, and showings of various educational environmental films. Funding for the events will be pursued through donations, in-kind services, and grants.

Community Cleanups

At least two community cleanups will be sponsored by GBRA, the COSM, Texas State University, and Keep San Marcos Beautiful. The Great Texas River Cleanup held the first weekend in March attracts private and NGO funding, hundreds of volunteers, and results in tons of waste and debris recovered from the river and contributing watersheds. The event also develops watershed-aware leaders who return each year to lead and train new volunteers. A second cleanup will be selected to occur in the fall to coincide with Watershed Awareness Week. Other clean up events will be scheduled throughout the year by local NGOs and partners.

Mermaid Festival Watershed Protection Activities Aligned with WPP and MS4 Efforts

The Mermaid Society SMTX is a grassroots community organization committed to strengthening connectivity among like-spirited community partners in support of river guardianship, the arts, historic preservation, and local entrepreneurship. The Mermaid Society, and its many partners and supporters, host several events and outreach programs throughout the year, including a ball, parade, speaker series, educational events, fairs, and symposiums. With assistance from the Meadows Center, SMRF, and other partners, the Mermaid Society will incorporate consistent messaging about watershed protection and nonpoint source pollution into many of their activities and outreach efforts, including, but not limited to hosting speakers, demonstrations, films, and events throughout the watershed. These messages will be coordinated with City and University MS4 efforts and other ongoing watershed protection efforts to ensure that a watershed wide message is shared by all WPP and community partners. This collaborative team also is applying for grants to promote watershed protection and sustainability through the arts and education.

Printed Material and Website

Website

The Meadows Center will keep the WPP website updated and it will link to other local, state and federal stormwater resources. Information on TST activities, LID BMPs, watershed tours, brochures, PSAs, and volunteer outreach events will be included. The website will be funded through a variety of sources including non-profit/NGO entities, implementation funds from City and County resources, and grants.

Brochures

The WPP stakeholder's workgroup will personalize the GBRA "Don't Be Clueless about Water" brochure to reflect the unique features of the Upper San Marcos River and its tributary creeks. It will include information about the springs, watersheds that contribute flow to the San Marcos River, and the connection between the urban and stream settings. Brochures may also reflect stormwater messages developed through the City and University MS4 programs and will be available during the community cleanup events and Watershed Awareness Week. WPP documents and existing reports, information and other sources will be utilized to create additional brochures via a collaboration between local NGOs, City, County, Texas State University, and the Meadows Center. Funding will be obtained from a variety of sources including the

Texas A&M AgriLife Extension Service, the TSSWCB, GBRA, and other grants.

Bumper Stickers

Bumper stickers will be created with the Upper San Marcos River logo and specific messages such as “a healthy watershed supports a clean, clear, and flowing San Marcos River” developed by the Stakeholders Committee. The bumper stickers will be distributed at community cleanups and events.

LID, Green Infrastructure, and BMP Education Manual and Supporting Materials

Materials developed to support the new COSM LDCs and existing documents authored by similar cities and nearby WPPs will be utilized to create resources for developers, home owners, and the public. These resources will be available in print and online and can be combined with workshops, webinar curricula, and projects highlighted in watershed tours. Technical information in the manuals can be used to guide information presented on the website, brochures, and other educational materials. The manual and materials will be developed as a collaborative effort between local NGOs, City, County, Texas State University, and the Meadows Center. Funding will be obtained from a variety of sources including private monies and grants.

Watershed Tours

A series of tours will be developed as a collaborative effort between local NGOs (SMRF, Hays County Master Naturalists and the SMGA, City, County, Texas State University, and the Meadows Center) to highlight water quality initiatives in the watershed. Self-guided campus based tours, downtown tours, watershed wide tours, and greenbelt tours will have downloadable information. In addition, tours will periodically be led by volunteers as part of an outreach campaign. Funding will be obtained from a variety of sources including private monies and grants.

Utility Bill Inserts

Watershed protection and nonpoint source pollution prevention information will be periodically included as inserts in utility bills and other print informational resources distributed by the City. Similar inserts will be provided to the County for any mass mailings they may have. This information and similar inserts will also be made available in print and electronic form for University communication efforts. Utility inserts using the same images and text as the bumper stickers will be created and may also include specific high priority pollutant messages for pet waste, automobile leakage, and residential use of pesticides/herbicides. Utility inserts will be prepared and included in utility bills during the month of Watershed Awareness Week (Fall).

Online Training

Training on the following topics will be posted to the website and made available for interested citizens and professionals needing continuing education hours for professional licenses:

- ✓ Septic system workshop
- ✓ Wastewater treatment facility training
- ✓ Stormwater awareness for municipal operations
- ✓ Fats, oils, and grease and HHW

These trainings were created by GBRA and will be updated as new information becomes available.

PSAs

PSA videos for stormwater awareness were made for the COSM and Texas State MS4 programs and are available on the respective websites. Additional videos are currently being developed by the EAHCP and Keep San Marcos Beautiful campaigns targeting good river tubing behavior and anti-littering campaigns for river visitors. Videos also are posted for the Challenge SMTX campaign that challenges everyone to pick up at least one piece of trash a day. All videos are paid for by in-kind services and are posted to Facebook pages, City, and University websites and to the WPP website.

Physical Outreach Tools

Watershed Roadway Signs

If supplemental funding is available, roadway signs will be placed on roads with creek or river access identifying the name of the creek or river and a message of “Inside Watershed Environmentally Sensitive Area”. The estimated number of signs are: Purgatory Creek (6), Willow Springs Creek (7), Sessom Creek (2), Cottonwood Creek (4), Sink Creek (2), and the Upper San Marcos River (5). The Stakeholder Committee will work with the city and county to determine the signage requirements (size, color, style) and placement.

Banners and Trash Can Wraps

This is an initiative of the local MS4 program for the second permit cycle (2018-2023) to hang large banners from bridges at Hopkins and Cheatham streets where the river crosses under during the summer tubing season. The banners would carry the tag line and logo of “What Goes Here Flows Here”. Trash can wraps with the same message are planned (dependent of funding and approval) to further support the campaign. The Stakeholder Committee would be sought for advice and additional support before launching this initiative. Funding for the initiative will be through grants (other than EPA, TCEQ, and TSSWCB) and MS4 funds. Although this initiative is separate from MS4 activities, many of the goals and efforts are related.

Pet Waste Stations

The existing pet waste stations in public parks and greenspaces will be expanded to offer rebates for apartment complexes and hotels to establish stations. Education efforts will be directed to those establishments located near a creek or river. Educational materials will be developed by the COSM, Texas State University, GBRA, and the Stakeholder Committee. Funding will be through funds sought out by the COSM and Texas State University stormwater programs with the help of the Meadows Center and NGOs.

Watershed Model

TST and the Spring Lake Education Program provide a mobile watershed model provided by the Meadows Center to teach about water quality and water pollution to youth groups. Students enjoy this hands-on approach and leave with an understanding of watershed science and their role in nonpoint source pollution. The EAHCP also owns a watershed model and can provide similar training at summer camps, parks, outdoor events, and community cleanups. A LID watershed model would also be beneficial to educate the community, developers, and youth about how LID works and how it can be brought into our homes and cities. The LID model could be incorporated into the TST Spring Lake and Watershed Learning Center and school education programs.

Kiosk

Kiosks in the city parks are provided by the EAHCP as part of the E&O efforts. The kiosks have

interchangeable education boards to provide messages and images to support stormwater awareness, watershed awareness, the role of the riparian zone, and land conservation for flood prevention and water quality. Content will be determined collaboratively between the COSM, Texas State University, the Meadows Center, GBRA, and other interested stakeholders. Funding for the design and printing of the boards will be provided through a variety of sources including Texas A&M AgriLife Extension Service, the TSSWCB, GBRA, and other grants.

Educational Programs

EcoBiz or Green Business Bureau Certification

A special certification program recognizing light industrial businesses such as auto mechanic shops, car washes, landscape companies, pesticide applicators, and others will be established in collaboration with the COSM and the Meadows Center. The intent of the program is to promote voluntary good environmental practices that will benefit the river as well as the business through increased recognition. The program will set environmental standards for good housekeeping, pollution prevention, spill response, use of less toxic chemicals, and water and energy conservation. Companies that meet the certification requirements through an inspection process by the COSM or contracted services will be listed on the registry, publicized in local social media and newspapers, and awarded with a prevalent sign that can be posted in the store front. The TCEQ may offer assistance with programs such as the Clean Texas Program and Compliance Commitment offered in the past. This project will take additional research and development.

Watershed Wise Business Campaign

An outreach program targeting local retail and service businesses in the watershed will be designed to complement the Green Business Certification program. Businesses that choose to receive educational information, display information about protecting water quality and participate in nonpoint source pollution prevention audits will receive recognition (store front, online, press and media) as being Watershed Wise. This program will be developed by year three, in conjunction with the EcoBiz or Green Business Bureau Certification.

Watershed Education Programs for Schools and Informal Educators

Much like the watershed models described earlier, the Meadows Center and many of its partners utilize educational programming via:

- ✓ Texas Stream Team
- ✓ Texas Aquatic Science Curriculum
- ✓ Texas Parks and Wildlife Department
- ✓ TAMU Water Education Network
- ✓ USGS
- ✓ NatureBridge and the National Park Service
- ✓ National Oceanic and Atmospheric Administration (NOAA)

These and other resources will be used to create a comprehensive resource library for providing youth in the watershed with educational modules, lesson plans, activities, and materials. This library will be available to all public and private schools, as well as home school and informal educators. It is anticipated that the online library will be coupled with “portable classrooms” or containers with educational materials that can be checked out by educators. Watershed partners will work with local educators, faith based leaders, and other community education providers to ensure that training and support are available as needed to utilize

these materials. Watershed partners will work together to leverage resources and raise funds to ensure the continuation and success of the program, which will be coupled with the Watershed Learning Center at Spring Lake.

Spring Lake Education Program

The Meadows Center hosts the Spring Lake Education Program which provides environmental education to more than 120,000 visitors and community members per year, more than one quarter of which are children and young students. The Center also supports several research, education, service, and stewardship programs, offering environmental research, employment, internships, and other opportunities to many undergraduate and graduate students.

Spring Lake Education Program efforts, in partnership with numerous watershed stakeholders, will utilize Spring Lake and the adjoining 251-acre nature preserve to tailor interactive learning opportunities and offer exploration of the diverse system that is Spring Lake and the Upper San Marcos River. In doing so, attendees and participants will become familiar with species that rely on water, as well as the threats to water quality and what we can do about them, including pollution prevention, and water conservation. Activities will be developed and adapted for school age and university students, as well as industry professionals and the public. On site educational features, structures, and modules from the watershed's education programs will reflect the needs and interests of the community. Existing LID, green infrastructure, and stormwater management measures will include information tailored to watershed residents, including public and private school curricula and University courses. Continuing education courses for environmental professionals and local planners will also be offered. Partners will work with schools and informal education venues to raise funds to transport students to the Learning Center for field trips, as well as to provide support in the watershed's classrooms. Examples of Learning Center activities include:

- ✓ RWH and rain gardens
- ✓ Watershed mapping tools and way-finding activities
- ✓ Macroinvertebrate sampling
- ✓ Water quality monitoring
- ✓ Aquifer and groundwater education
- ✓ Endangered species that rely on clean water
- ✓ Tree and riparian plant identification
- ✓ Habitat hikes
- ✓ Local water sustainability issues
- ✓ Art and nature
- ✓ Watershed soils, climate, ecozones, and other characteristics
- ✓ Rain gauges
- ✓ Environmental and Spatial Technology Projects
- ✓ Water quality research fundamentals
- ✓ Green infrastructure and LID policy, implementation and maintenance
- ✓ Best practices for recreation

The Spring Lake Education Program is funded in part by the EPA through the Clean Water Act (CWA) §319(h) Nonpoint Source Program administered by the TCEQ.

Texas Stream Team and the San Marcos River Rangers

TST and its local partner, the San Marcos River Rangers (supported by SMRF) bring together community

members, students, educators, academic researchers, environmental professionals, and both public and private sector partners to conduct scientific research and promote environmental stewardship. The River Rangers collect monthly water quality data at dozens of points along the river and its tributaries. TST and the River Rangers will expand existing TST programs for monitoring riparian health and macroinvertebrate assemblages (as measures of river and stream health) and will track trash and monofilament removal. This data will be compiled at least annually and shared with watershed stakeholders as an educational tool. TST is funded in part by the EPA through the CWA §319(h) Nonpoint Source Program administered by the TCEQ.

Participation in Local and Regional Water-Based Education and Protection Events

Watershed stakeholders will participate in numerous local and regional water-based education and protection events and will share information and materials about the watershed, current water quality issues associated with the Upper San Marcos River and prevention of nonpoint source pollution. The level of participation and availability of funding will depend on the type and scope of event. Examples of events identified:

- ✓ Seventy Two Degrees
- ✓ Texas Water Safari and Junior Safari
- ✓ Sacred Springs Powwow
- ✓ Petfest
- ✓ Rainwater Revival
- ✓ Earth Day Events
- ✓ Summer in the Park Concert and Movie Series (COSM)
- ✓ Farmers and art markets
- ✓ 1st Saturday birding hikes
- ✓ Hill Country Water Summit
- ✓ Hill Country Alliance Events

Evaluating Effectiveness of Education & Outreach

To evaluate the effectiveness of education practices on water quality improvements, a system will be utilized and results will be documented throughout the implementation phase. The Social Indicator Planning & Evaluation System (SIPES) is a seven-step process that uses social indicators to help plan, implement, and evaluate nonpoint source management projects.

This evaluation begins with a review of project plans and then guides projects through a process to collect, analyze, and use social indicator data at the beginning and end of a nonpoint source project (Genskow and Prokopy, 2011). The SIPES Handbook was developed by the Great Lakes Regional Social Indicators Team with collaboration from US EPA Region 5, state water quality agencies, and numerous stakeholders in Region 5. This Handbook outlines the following seven steps:

1. Review project plan;
2. Collect and enter pre-project survey data;
3. Review data and refine social outcomes;
4. Monitor social data throughout project;
5. Collect and enter additional post project data;
6. Collect and enter post-project survey data; and
7. Review data and use results.

Water quality problems have accumulated over many decades and may take decades to amend. Confirming that awareness and attitudes are changing and behaviors are being adopted in a watershed is one way that projects can demonstrate progress toward water quality goals. Monitoring social indicators, like monitoring environmental indicators, will give valuable information about how well management strategies are working.

4. MONITORING PLAN

Monitoring and data collection will be undertaken during implementation of the WPP by the COSM, Texas State University, GBRA via the Texas Clean Rivers Program (CRP), TST, and other partners. Flow/discharge and height are captured by gauging stations operated by USGS with support from EAA. Groundwater levels are monitored by EAA and groundwater districts (BSEACD, precincts 1 and 2, HTGDC District 5). Specialized and targeted monitoring including bacterial source tracking, TDS constituent analyses, and biological monitoring are being performed by City, University, EAHCP, and other entities.

Monitoring efforts will be coordinated and used to track water quality conditions with the aim of better understanding nonpoint source pollution contributions to the river over time. Available routine, continuous, and storm event water quality monitoring data will be used to develop a baseline for tracking water quality and WPP progress. Water quality monitoring data will be used to assess efficacy of implemented BMPs and ordinances over time. In addition, EAA and the WPP partners spend considerable effort on monitoring EAHCP progress via water quality and quantity metrics that can be applied to track WPP progress. Potential future monitoring may be used to determine the origins of TDS in source water and river water. Future monitoring may also be used to determine potential effects of stormwater pollution on source water.

The following section provides information related to:
Element I. Water quality monitoring component to evaluate effectiveness
of implementation over time

Tracking Load Reductions from Management Measures

WPP Monitoring Plan (Element I) efforts to measure the effectiveness of BMPs and management measures will utilize the Implementation Schedule (Element F), modeled or calculated outcomes of measures (Element B), and identified management objectives (Element C). To evaluate the effectiveness of Plan activities, the monitoring outlined in Table 4.1. Monitoring will be coordinated by Plan partners, recorded, and reported on the WPP website. Data will be compiled and reviewed at least semi-annually by the Stakeholder Committee. Additional sources of data will be reviewed for quality assurance and can also be considered. Data showing increases in pollutants will be further analyzed and used to trigger adaptive management strategies.

Adaptive management guided by water quality analyses will determine future implementation strategies. By tracking water quality trends and responses to both environmental factors and Plan activities, stakeholders will be able to evaluate whether Plan implementation is successful and can determine the need for additional actions or refocusing of existing efforts. This adaptive approach relies on frequent input of watershed information and the comparison of current conditions to the water quality targets and goals.