MUNICIPAL BMPs

Introduction to Municipal BMPS

- ~~BMPs for Municipal Water Users~~ About Municipal BMPs

Conservation Analysis & Planning

- Conservation Coordinator
- ~~Water Survey for Single-Family and Multi-Family Customers~~ Residential Water Surveys
- Non Residential Water Surveys
- Crisis Response Planning
- Development of a Water Conservation Plan
- Customer Categorization and Billing Systems
- Calculating Residential gpcd
- Cost Effective Analysis

BLACK indicates currently existing BMP .
ORANGE indicates existing BMP that may need revision.
GREEN indicates possible new BMP
BLUE indicates categories/groupings of bmps

Financial

- Wholesale Agency Assistance Programs
- ~~Water Conservation Pricing~~ Conservation Rate Structures

System Operations

- System Water Audit and Water Loss Control
- Metering of All New Connections and Retrofit of Existing Connections

Landscaping

- ~~Landscape Irrigation Conservation and Incentives~~ Landscape Water Budget
- Irrigation Efficiency Evaluations
- Certification of Landscape Professionals
- Water Efficient Landscape Design
- Athletic Fields Conservation
- Golf Course Conservation
- Park Conservation

Education & Public Awareness

- School Education
- ~~Public Information~~ Development of Public Awareness Program
- Public Awareness Program: Water IQ
- Informative Water Billing Statements
- Water Conservation Citizen Councils

Rebate, Retrofit, and Incentive Programs

- Conservation Programs for ICI Accounts
- Residential Clothes Washer Incentive Program
- ~~Water Wise Landscape Design and Conversion Programs~~ Landscape Design Incentive Program
- Low Income Plumbing Upgrade Program
- Showerhead, Aerator, and Toilet Flapper Retrofit
- Residential Toilet Replacement Programs
- Irrigation System Rebates

Conservation Technology

- Water Reuse
- Rainwater Harvesting and Condensate Reuse
- New Construction Graywater

Regulatory & Enforcement

- ~~Prohibition on Wasting Water~~ Water Waste Prohibitions and Enforcement
- Watering Schedules
- Adoption and Enforcement of Landscape Irrigation Standards.
- Rules for New Construction

Format Enhancements

Defining Water User Groups

The following broad water user categories should be clearly defined within this guide the main chapters. If there are already widely accepted definitions that are being used then those definitions need to be restated and cited at the beginning of the chapters in the BMP guide.

- Agricultural Water User
- Municipal Water User
- Industrial Water User
- Institutional & Commercial Water User

Organization of Guide

It is suggested that the current list of BMPs be categorized into target categories that group similarly related BMPs.
Refer to Proposed Table of Contents

Visually Enhance the BMP

It is suggested that more graphs, tables, and images be added to each BMP to serve as informational resources for an entity to consider as they evaluate the overall BMP. This will enhance the presentation of the information found in the BMP description.

BMP Suite Packages for Municipal Water Providers

This guide attempts to emphasize that the use of BMPs will be uniquely tailored for each water provider as they identify their own specific set of conservation priorities and circumstances based upon their customer base, water supply, and growth potential. Water conservation programs are tailored to meet the needs of each individual utility and there really is no "one size fits all" approach. However, there are many water providers who will be referring to the BMP Guide as a menu of options to either begin or enhance their conservation programs.

When developing a water conservation program to meet the needs of their community, it is anticipated that a utility will start with the foundational best practices and select additional relevant best practices as their conservation programs and goals grow.

To assist water utilities in selecting best practices, three "suites" of best practices can be developed. These suites of best practices are organized to meet different budgetary and demand reduction objectives.

- Foundational Suite - is the most basic and could be considered a "minimum" package of utility-side conservation best practices. Utilities just starting to integrate water conservation into overall water resources planning and those with limited budgets should start with this suite which includes utility-side best practices that are considered fundamental and foundational for the establishment of an effective and low cost water conservation program.
- Enhanced Suite -builds on the practices included in the Foundational Suite and includes low and moderate cost best practices with maximum impact. Utilities seeking to implement a low to moderate level program with utility and customer-side measures should consider this suite.
- Comprehensive Suite - offers a complete package of best practices described in this guide. Those seeking maximum cost effective water savings should consider this suite. This suite includes all best practices from the first 2 suites and include additional customer-side best practices. While other conservation program measures beyond these best practices exist, most of the available water savings will be captured and accelerated through the implementation of these best practices.

These suites are just suggested groupings of best practices. Each provider must decide which best practices make the most sense for their specific situation and conservation goals. This list of suite packages can be offered as an appendix in the guide.

Website Supplements

Case Studies

The Council has indicated that one of their goals is to encourage information sharing about the use of these types on BMPs in Texas. Components for information sharing could include the following:

- Water savings attributable to BMP Implementation
- Types of documentation and evaluation involved with implementing the BMP
- Implementation mechanisms and how the BMP was tailored to community circumstances
- Costs incurred in implementation of BMPs
- Benefits of implementation that may not be suited to quantitative analysis
- Barriers or challenges to implementation of the BMP

The above components of information sharing would best be used as the framework for collecting case studies. People like to have their programs highlighted as case studies and may be more likely to voluntarily share information for this purpose.

Case studies can serve as excellent examples and references for entities. It is suggested that case studies be made available on the BMP website rather than adding them to the individual BMPs in the guide. Essentially they would be an online only supplement to the BMP guide. Websites are highly accessible and are frequented often as resources. Because there are a number of case studies that could potentially be added, it will be a better use of space to put case study information on a website rather than a text document. This will make the process much easier to add case studies overtime.

Research and Experimental Projects

This would be an online only supplement to the BMP guide. In addition to case studies the website could house some information on research and experimental projects that are in progress and being conducted by Texas academic institutions or resource institutes. Even though this section may not provide data results, it lets the reader know of on-going efforts in Texas that they might have already questioned. The academic sector is testing many new technologies and conducting studies relating to BMPs and water conservation, and it would be helpful to inform readers about the current research within the academic arena.

Model Plan

To increase the use and visibility of the BMP Guide by municipal water users the TWDB should consider using this BMP guide as part of a "model" water conservation plan (WCP). Although BMPs are not part of the required guidelines for a WCP, most utilities in Texas are required to submit a water conservation plan. A model WCP that incorporates BMPs would serve as a reference document that can assist a water provider in creating a new or revised WCP. The provisions of the model WCP are strictly voluntary. It would be beneficial for the TWDB and TCEQ to work together to develop a model WCP that depicts the incorporation of BMPs into a plan. Again this model is just that, a model to serve as a resource and it goes beyond the current checklist. This model plan could then be available online through the TCEQ, TWDB and WCAC websites.