Strategic Business Planning as a Water Resource Management Tool

PROJECT #2698

ORDER NUMBER:
90905

PRINCIPAL INVESTIGATORS:
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OBJECTIVES:
The objective of this project was to provide a framework for utilities in transforming existing management and planning activities into a holistic and efficient strategic business planning approach. The value of the strategic planning approach is the clarification, organization, and long-term resolution of the challenges and complexities surrounding multiple, and potentially conflicting water resource development and management constraints.

BACKGROUND:
Regulatory and non-regulatory constraints are setting the stage for significant future challenges for drinking water utilities. The manner in which water resources are managed is changing out of necessity. Competitive, environmental, regulatory, and stakeholder pressures are forcing utilities to re-examine resource development. Past resource development approaches will be ineffective or detrimental for the future. Utilities will need to begin to shift from utility-centric thinking to a holistic approach. The Strategic Business Planning Model presented in this report is a step in assisting utilities in making that shift.

HIGHLIGHTS:
This report develops, categorizes, and describes the following constraints that water utilities must manage in order to ensure a sustainable resource: regulatory, customer expectation, resource development, political, and financial. The report develops the conceptual Strategic Business Planning Model (SBPM) as a means to organize and address water resource sustainability issues resulting from the previously listed constraints. The SBPM enables the utility to construct a framework that incorporates existing utility resource development, treatment, and management practices with the needs of the community, customers, regulators, and stakeholders. The report makes extensive use of utility cases studies and experiences. The project report also includes the interactive Contaminant Treatment and Regulatory Concerns Matrix on a 3.5” disk designed to be a screening tool that creates the linkage between treatment processes, Safe Drinking Water Act (SDWA) requirements, and non-SDWA regulations and non-regulatory concerns.

APPROACH:
This report used utility interviews and case studies to identify water resource strategic planning issues specific to participating utilities followed by a two-day facilitated workshop with the goal of identifying the commonalities among the issues. Based on the commonalities, resource development constraints and the SBPM were developed. The approach taken in presenting the findings of this report is knowledge-based rather information-based. The more traditional information-based approach is effective in addressing a clearly definable, technical issue with a limited number of solutions based on the science. Such an approach is inadequate in addressing an issue that will vary between utilities and even between projects within the same utility. A knowledge-based approach does not provide a limited, direct answer, rather, it provides the tools and methodology that can be applied to an issue to arrive at a unique solution.

RESULTS/FINDINGS:
Based on extensive utility input it was determined that the SDWA requirements faced by utilities are only one element of the myriad of complex, interrelated, and often conflicting, regulatory and non-regulatory constraints. These constraints result from federal and state regulatory requirements, stakeholder objectives, customer involvement, and the community’s vision. The comments of participating utilities confirmed that utilities are likely conducting many of the long-term and short-term planning and internal activities associated with water resource development and management as they should. However, two recurring themes in utility case studies and workshop comments were (1) a weakness in identifying and addressing non-regulatory issues and (2) a lack of a cooperative stakeholder process to facilitate long-term strategic resource development/management planning.

This report has attempted to identify and integrate the unique non-regulatory elements with ongoing utility activities. It categorizes the challenges faced by utilities as the following constraints to resource development: regulatory, customer expectations, resource development, political, and financial. These constraints were used to develop the conceptual SBPM. The SBPM provides the utility with a framework for merging planning activities already in use with a decentralized, holistic water resource sustainability approach that accounts for utility, regulator, stakeholder, customer, and community needs. Based on application of the model to actual utility scenarios, utility representatives were able to identify how existing issues could have been better organized and how ineffective approaches to water resource issues could be revised.

IMPACT:
Utilities today face continuing pressures from decreasing budgets, increasing regulations, customer expectations, non-potable water demands, and the possibility of privatization. Utilities must find ways to integrate activities surrounding water resource development and management in order to increase efficiency, performance, and accountability while protecting the environment and delivering a better product in a competitive market. The Strategic
Business Planning Model provides utilities with a framework for organizing and managing utility, customer, stakeholder, community, and regulatory agency objectives in a manner to achieve the long-term strategic water resource goal of sustainability.

MULTIMEDIA:
The report includes the Contaminant Treatment and Regulatory Concerns Matrix on a 3.5" disk.

RESEARCH PARTNER:
USEPA

PARTICIPANTS:
Eight utilities from throughout the United States participated in this project.