# KITSAP COUNTY
# SURFACE AND STORM WATER MANAGEMENT PROGRAM
# VALUE ANALYSIS STUDY
# FINAL REPORT
20 MARCH 1996

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# TABLE OF CONTENTS

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# EXECUTIVE SUMMARY

**WORKSHOP PURPOSE**

The Kitsap County Surface and Storm Water Management Program has been in place for approximately one year.  Kitsap County conducted this four-day study to:

- **Criteria:**                Reaffirm major program goals and criteria.

- **Teaming:**                Reinforce teaming effort among key program agencies and groups.

- **Resource Allocation:**     Identify and prioritize various resource allocation within the existing budget among program activities.

- **Program Efficiencies:**    Identify opportunities for meeting program goals with greater efficiency, simplified systems, or reduced cost.

- **Public Confidence:**       Reinforce public understanding and confidence that public moneys are efficiently spent and protecting public health.

- **Value Analysis:**          Introduce the value analysis process as a useful tool for other County personnel and programs.

**SELF ASSESSMENT STUDY TEAM**

The County assembled a large, multi-disciplined study team representing the Commissioners Office, Administrative Services, Public Works, Health District, Public Utility District #1, Conservation District, Community Development, Suquamish Tribe, watershed management committees, Home Builders Association, and several private individuals and consultants.  Most of the team were familiar with the program and most were primarily responsible for implementing the program.  At the initial kick-off meetings, additional steering committee representatives joined the team to outline program goals and criteria.  The study team followed a structured value analysis workplan in which the basic and supporting functions for each component of the program were identified; alternative approaches were generated; and viable recommendations were developed and analyzed against program criteria.

**ORGANIZATION OF THIS REPORT**

This report includes:

1. This Executive Summary of study process and findings.
2. Detailed write-ups for 23 specific proposals for modification or change to the current program structure.
3. A description of the methodology of value analysis and the process the team used, keyed to analytical and creative documents developed solely for the use of the study.

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# EXECUTIVE SUMMARY

**PROGRAM REVIEW**

The large study team broke into smaller groups in order to examine the various components of the program.  The program's primary functions are to:

- Control water pollution
- Plan surface and storm water control systems
- Construct surface and storm water control systems
- Operate surface and storm water control systems
- Assure compliance with preventative water pollution control methods
- Actively pursue water pollution control and public education/involvement efforts.

Supporting functions include:

- Administer surface and storm water programs
- Educate and inform public
- Maintain surface and storm water systems
- Fund surface and storm water system programs

Goals and objectives, as well as more specific activity and task assignments were examined for each component of the program.  The current program budget was reviewed to better understand how the funds are distributed relative to each of these functional components.

**PROGRAM CRITERIA**

The study team discussed a wide range of goals and criteria for the program and identified the following as most important <u>for this study</u>:

- Stream Quality
- Public Information and Education
- Pollution Control
- Grass Roots Involvement
- Re-Charge Water Quality
- Agency Coordination
- Long-term Funding
- Natural Systems Solutions

- Monitoring
- Data Reliability
- Puget Sound Water Quality
- Controlling Growth and Development Impacts
- Public Health
- Positive Incentives
- Balancing Costs

**CONCLUSIONS**

This program assessment revealed that the Kitsap County Surface and Storm Water Management Program employs a broad-based approach to protecting and improving local and regional water quality.  The program funds are effectively distributed among four primary agencies, serving different communities and enviro needs, all of whom are responsible for administering their portions of the budget.  In the first year, this program has raised the public's awareness of the need for regional water quality protection; has began analysis and planning for capital improvements; and has implemented an effective maintenance program for existing systems.  Some elements of the program are not yet in place, and accordingly the planned, initial expenditure funds are still available.  The program participants in this study team all demonstrated a strong desire for inter-agency coordination and efficiency in order to maximize implementation and minimize overhead expenditures.

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## EXECUTIVE SUMMARY

### RECOMMENDATIONS

The study team generated and quickly discussed hundreds of ideas for improvements to all components of the program.  Most of these are minor adjustments or improvements to day-to-day operations.  Several themes, however, surfaced frequently and were developed as high priority specific recommendations for steering committee review and discussion.  Following is a summary of those key themes; the following section of this report includes detailed recommendations for specific proposals.

### Program Administration

At the time this study was carried out, a program administrator had not yet been selected.  Consequently, a number of functions such as personnel, volunteer coordination, training, public information, and database management were being handled separately by the various program components.  The Program Administrator will be expected to improve efficiencies in the overall program and provide leadership.

### Funding

The current program is budgeted on an annual steady-state basis.  The study team recommends that a longer range (ten years, twenty years, etc.) budget be completed as soon as possible so that funding distribution can recognize some higher initial planning and start-up activities that are non re-occurring in the future, thereby allowing more substantial capital and maintenance programs in the future.

The study team also reviewed the allocation of funds and activities that have been transferred from the road maintenance program to the surface and storm water management program.  It is recommended that the specific funds not be transferred formally to the SSWM Program in order to avoid unnecessary B&O taxation and handling costs.  The actual SSWM Program-related maintenance activities can still be budgeted and tracked separately without formally transferring the funds, as an "in-kind service".

### Planning

The current program and capital budget estimate is based on a regional model extrapolated from one completed basin study.  This is an economic, broad based method for prioritizing regional needs, but in the long term it may not reflect actual conditions.  Ideally a regional plan would be based on more complete hydrological survey and study of all the basins in the region.  Although planning at that level is expensive, it may ultimately prevent the County from allocating funds to low priority areas.  This re-prioritization of funding should be reviewed in the context of a long range funding budget.

The study team recommended strongly that surface and storm water planning be coordinated with County and regional land use planning in order to not only prioritize the water control projects to areas of greatest need, but also to use planning and zoning as an effective tool for regional water quality control.

### Public Information

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In addition to focusing much of the public information and training under the Program Administrator, the study team recommends that an experienced public information individual be hired to coordinate these efforts on behalf of all the program components.

# EXECUTIVE SUMMARY

**Maintenance Waste Disposal**
The current maintenance program under the direction of public works is efficient and responsive.  A disproportionately high expenditure is the cost for the disposal of sediment, which is currently being handled as hazardous material.  The study team recommended that the County aggressively pursue alternative, less expensive methods for handling this material.

**Monitoring**
A number of water quality survey and monitoring activities are included in the program.  These include septic system monitoring, stream monitoring, well head monitoring, agricultural monitoring, as well as general storm water system condition monitoring.  Although none of these by themselves account for large portions of the budget, it is suggested that as this program develops and as compliance methods are better understood by the public, that the program manager look for ways to combine some of the surveying and monitoring currently being conducted separately by the various agencies in the program.

**Methodologies**
This study reviewed only briefly some of the specific technical approaches to various program components such as data collection and modeling, monitoring, maintenance, and public education.  Several study team members with exposure to other non-local water programs noted that a great deal of research, literature, and information has already been developed and tested for programs similar to Kitsap County's program.  Here again a strong central Program Administrator can encourage the use of this outside knowledge base and avoid re-inventing the wheel in Kitsap County.

**We All Live DownStream**
A large number of participants and the intensity of their involvement in this study demonstrates a concern for the wise use of public funds.  This study also demonstrated to all of the participants the complexity of the regional eco-system and the tremendous impact that people have on water quality.  A well balanced program such as the Kitsap program will definitely temper and lessen that impact, but funding even at many times the current assessment levels, would not completely remove the impact of growth and can develop in the region.  This program appropriately allocates resources for education and prevention, which will ultimately have a larger positive impact than constructing water and pollution control facilities.  In the meantime, the study demonstrates that the program participants are looking for efficiencies so that existing budget can implement physical improvements in the communities.

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# STUDY PROCESS AND MATERIALS

## Process Purpose

Value analysis itself is an organized, creative process which examines a given project or process, and identifies alternatives to optimize cost and performance and assure compliance with project requirements. Through a structured system of investigation, functional analysis, idea generation, and analysis, the VA team is able to consider and identify alternatives for process, personnel, organization, timeline, schedule, program, methods, and additional issues in a concentrated week-long study.

## Kickoff

This VA study was initiated by the request of Kitsap County Commissioners Office and began in November 1995 with identification of a team of facilitators, County representatives (from each of the involved agencies) and additional interested and affected parties. This team was split into two groups: the Steering Committee was responsible for delineating the highest level criteria and direction for the study, and for making final determinations and recommendations; the Study Team was organized to include the day-to-day managers and technical experts who are most familiar with each of the individual programs of the SSWM Program.

A project kick-off meeting was held on November 29, and included all members of the Steering Committee and key members of the study team. During this meeting, lasting three hours, the VA team leaders laid out the basic methodology and framework of the study, the group agreed to a Statement of Work (Figure 1), make-up of the study team and steering committee was adjusted to ensure complete representation (Figure 2), and a final study schedule set (Figure 3).

## Criteria Definition/Prioritization Phase

On the first day of the study, the process was kicked off with the study team, steering committee, and other interested participants discussing their goals and criteria for the program. Each of the attendees summarized their two or three highest criteria (what's most important to them), as well as their areas of greatest concern for the program. All of these were listed and then prioritized by means of a voting process in which each of the participants selected the seven criteria of highest importance, and the seven criteria of lowest importance, with those items in-between indicating medium importance. These votes were tabulated and graphed (Figure 4), and used throughout the study as a reminder of issues that are important to the study participants, and to help prioritize the areas in which the study team will focus attention. These discussions of criteria prioritization also served as a means for various program participants to hear what is important to other program participants. This prioritization should be helpful to the County in making choices on study proposal implementation, and as a model to update in the future, to re-visit and re-prioritize so that all can see how goals may evolve from initial program perceptions and efforts.

## Functional Analysis Phase

After the morning criteria session, the core VA team reconvened and split into separate groups (corresponding to the major program elements, i.e., Operations and Maintenance, Public Involvement) to conduct functional and cost analysis of the entire SSWM Program. Functional analysis is key to the process of VA, and means looking at each activity and element of a program, and asking a series of "why" and "how" questions about each of these activities. This analysis, based on the originally adopted 1994

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program plan and budget, <u>was initiated for the purposes of the study: it is a tool for creating a baseline and generating alternative ideas only, and is not intended as a budget review</u>.

## STUDY PROCESS AND MATERIALS

**Functional Analysis Phase** (continued)

The VA team began their analysis with a functional diagram and breakdown (Figures 5a and 5b) that had been prepared by the VA team facilitators prior to study start. Value analysis uses functional breakdown and function analysis as a primary tool to better understand the actual workings of the program. Functions are sorted from high order functions such as: protect humans, wildlife, and environment; to basis functions such as: plan control systems, construct runoff control systems, operate systems, and assure compliance; and finally to supporting functions such as: maintain systems, inform and education the public, and manage the program. The goal of this study was to maximize the basic functions and minimize, or look for alternative methods to accomplish, supporting functions.

The study team used this breakdown as a means to understand the programs, agencies, and budget distribution, and then distributed each of the activities of each SSWM Program component into this "functional language." (Figure 6) The purpose of this element of the process, as other steps in the value analysis process, are several fold:

■ for each of the team members to better understand the workings of the SSWM program and the distribution of costs, and

■ so that the team could identify areas of imbalance between cost and importance of function and focus their attention on those items.

At the completion of functional analysis a representative of each mini-group reported back to the entire team a summary of the findings. Figures 7 and 8 illustrate how the functional and cost data was summarized by the team, by critical path (or basic) function, and by each supporting function. Each graph depicts the breakdown by participating agency and helped illustrate those items that were distributed relatively equally across each agency, and those focused in a particular agency. Given the time available, the large size of the study team, and the fact that most study participants are not accounting-focused in their day-to-day work, the primary value for this portion of the process was for the participants to better understand the relative distribution of funds that must support multiple functions.

**Alternatives Generation Phase**

The team then generated alternative ideas for program improvements and efficiencies. Again, initial ideas were developed by breaking the larger study group into smaller groups, each focusing on the main functional components of the project. In the initial session, the participants were asked to focus on the specific supporting function and look for a minimum cost approach, whether that approach was ultimately viable or not. This process served to:

■ Validate portions of the program that are already very efficiently organized

■ Identify some immediate cost reduction approaches

■ Identify areas that are worthy of further discussion to search for alternatives - either cost reduction alternatives or program improvement alternatives.

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## STUDY PROCESS AND MATERIALS

**Alternatives Generation Phase** (continued)

The smaller study teams each presented a synopsis of their program area and some initial "off the top of the head" concepts to the larger group. The larger group then, using a voting process, selected those specific items that they felt were worthy of further development. Figure 9 summarizes these votes, with "happy faces" representing votes as good ideas, and "sad faces" representing votes as poor ideas. Ideas without smiles were not specifically voted on. Those items that received the largest favorable comment, and the recurring themes, were prioritized for more in-depth group discussion and brainstorming. A larger list of program improvement or program efficiency ideas were generated, briefly discussed by the larger group, and then prioritized.

**Ideas Analysis and Development**

Those ideas which generated the most support and/or interest were grouped into recurring themes and distributed to smaller study groups for development. Each concept was evaluated against the original prioritized criteria that had been developed on the first day of the study. This process was followed in order to evaluate whether the alternatives met all of the most important program criteria, and where they were weak, to look for ways to improve relative to specific criteria. Each of the concepts was ranked from 1 to 10, with 10 being high and 5 being the comparison for the current approach (Figure 10). Here again, this process was not intended to be a mathematical or functional definition of value, but a way to assure that the study teams reviewed and discussed ideas against each of the major project criteria. From individual-to-individual and from group-to-group there were some components that received relative strong concurrence in this evaluation, and there were some areas whose evaluation varied greatly. The time limits of this study did not allow for total group concurrence with a group of this size, but once again recurring themes and ideas rose to the top with general agreement that they should be pursued and further developed.

**Implementation Phase**

Two weeks after the study ended, the Steering Committee reconvened to review the draft report and findings of the study team. (Several members of the steering committee were on the study team, and all had participated in a brief oral presentation at the conclusion of the study.) This final report contains further sifting and sorting of the study documents pursuant to that meeting, and a copy of a follow letter from the Commissioner's office (Figure 11).

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