King County Executive

Rural Drainage and Water Quality Proposal

October 1999

KING COUNTY
Department of Natural Resources

ACKNOWLEDGEMENTS

KING COUNTY EXECUTIVE

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EXECUTIVE SUMMARY

For the past thirteen years King County has successfully implemented a nationally recognized, effective, and comprehensive surface water management (SWM) program. This program has responded to thousands of drainage complaints, solved hundreds of drainage and water quality problems and built numerous large, regional stormwater facilities. In partnership with its citizens, King County's SWM program has adapted to community needs while responding to advances in stormwater management sciences.

The surface water management program has been critical to the protection of rivers, streams, lakes and wetlands within the service area. The program has helped preserve the public benefits of these water bodies -- natural flow and water quality control, fishing, swimming, boating and aesthetic enjoyment, and habitat for the abundant fish and wildlife populations that are integral to our region's way of life -- while the area has continued to develop and prosper. It has applied the latest science and engineering in a responsible manner and helped to keep our growing population and economy in balance with the natural environment. The Rural Drainage and Water Quality Proposal presented here, outlines plans to extend these services and costs to all of unincorporated King County as we move into the new millennium. Its success will be due, in large part, to the hard work and innovative approach of the current program.

Currently, eastern King County and Vashon-Maury Island are neither assessed stormwater fees, nor eligible for program services. However, both the citizens and water resources in this area experience many of the same impacts that prompted the establishment of the surface water management program in 1987. Citizens have filed 850 drainage, erosion, and water quality complaints with King County, but unfortunately there is no program in place to address these problems. Without a comprehensive surface water management program, these kinds of problems will remain unaddressed. Streams, rivers, lakes, wetlands, and near-shore marine areas will continue to be polluted by runoff from parking lots, barnyards, homes and businesses. Silt from incised channels, failing slopes, and cleared land will continue to clog waterways, destroy salmon spawning beds and exacerbate flooding problems. If implemented, this proposal should substantially reduce these problems.

Further, this rural area is subject to the same regulatory requirements as the existing service area. Segments of virtually every stream system in unincorporated King County are listed under the Clean Water Act for the existence of pollutants. Likewise, all of unincorporated King County is subject to a single National Pollution Discharge Elimination System (NPDES) permit for water pollution abatement. The stormwater management programs in this proposal will help King County meet regulatory requirements.

The proposed service area contains valuable natural resources and is renowned for its beauty. It includes 78,000 acres of lowland rural areas, 900,000 acres of forestland, 1,700 miles of rivers and streams, over a dozen lakes, and fifty miles of critical marine shoreline. River systems such as the Snoqualmie and Skykomish nurture salmon stocks that are without parallel in the Puget Sound region. These rivers and their associated fisheries offer recreational opportunities that are highly valued by King County citizens.

King County's surface water programs have over a decade of scientific, technical, and management experience to support the development and implementation of programs for the

proposed service area. Much of what has been learned in the current service area can be applied directly to this new service area. This proposal also includes services and accountability measures added in response to an extensive outreach effort carried out during the preparation of the proposal.

The proposed Rural Drainage and Water Quality program, together with the existing surface water program, will help address many stormwater and water quality problems in unincorporated King County. The combination of these programs and the stormwater programs of local municipalities throughout King County will provide the foundation upon which the region's ESA response and regional watershed protection initiatives can be built.

PROGRAM GOALS

➢ *Address Stormwater Problems while Protecting Rural Livelihoods*

This proposal will provide funding to help solve long-standing and emerging stormwater problems that impact both rural livelihoods and aquatic resources. Currently there is a backlog of 850 complaints from the proposed service area. These problems include impacts typical of urban land use (increased runoff, erosion, and property damage due to flooding), as well as problems found in predominantly rural areas (runoff from agricultural fields, improper manure management, and damage to stream buffers.) The proposal includes drainage maintenance activities, capital projects, education, and technical assistance to help address these problems.

➢ *Support King County's Growth Management Objectives*

The ability to sustain long-term economic development requires that growth be managed to protect the fragile environment upon which a healthy quality of life depends. King County's water resources are a significant part of the Northwest's amenities that attract growth. Even as we enjoy the economic benefits of steady growth, we are witnessing a rapid decline in the health and quality of the natural resources that sustain us. Evidence of this decline includes swimming beach closures, increased flooding and erosion along natural waterways, and the addition of the native chinook salmon to the Federal endangered species list. Over the past several years, we have learned that even modest levels of development, as well as farm, forestry, and rural lifestyle activities, can contribute to this degradation.

King County's Comprehensive Planning policies, which provide the underpinnings of growth management strategies, include strong advocacy for the protection of water resources and maintenance of the rural character beyond the urban growth boundary. Both the protection of these water resources and maintenance of this rural character are supported by this proposal.

➢ *Comply with Local, State, and Federal Regulations*

The programs funded through this proposal support King County's ability to meet local, state, and federal regulations governing the management of surface waters. This proposal also helps the County comply with expected requirements for stormwater management in the 4(d) rule promulgated under the federal Endangered Species Act. Finally, many of the programs

in this proposal are required under the County's National Pollutant Discharge Elimination System permit. The proposal ensures the County's ability to comply by providing dedicated funding for these activities.

Program Strategies

Specific strategies that have guided the existing surface water management programs and the development of this proposal include actions that:

- Mitigate drainage problems by restoring, maintaining, and improving constructed and natural stormwater systems.
- Help protect and improve the water quality and beneficial uses of lakes, streams, aquifers, and wetlands through stewardship, watershed assessments, and environmental monitoring.
- Support the implementation of farm, livestock, and forestry practices that help protect aquatic resources and promote water quality.
- Develop an integrated approach to surface water management that ensures compliance with local, state, and federal regulatory mandates and includes compliance with ESA.
- Build a strong foundation for future regional initiatives that help protect regional fisheries and water quality in regionally-significant water bodies, and that reduce flood hazards along our major rivers.

Administered by the Department of Natural Resources (DNR), this program will further the region's progress towards protecting and restoring the public benefits and ecological value of the natural and constructed surface water systems throughout unincorporated King County.

PROPOSED SERVICES AND COSTS

The majority of services in this proposal are the "traditional" services provided in the existing surface water management service area. These services include:

- Investigation and resolution of drainage problems and water quality complaints.
- Design, construction, and maintenance of stormwater facilities.
- Watershed management.
- Technical assistance to farmers and foresters.
- Basin stewardship.
- Environmental monitoring.

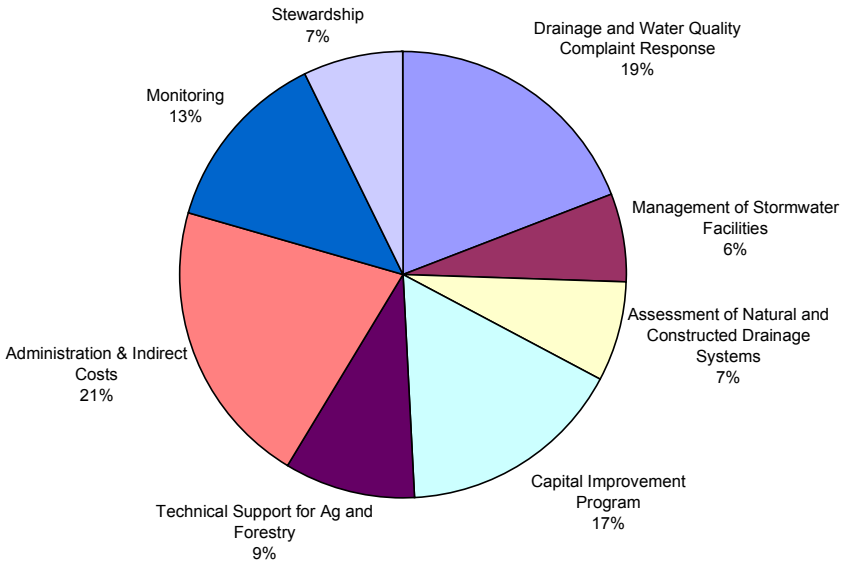
Additional services, tailored to the unique needs of the proposed service area have been added in response to citizen input and the County's evaluation of these needs. These services include:

- Monitoring ground and surface water to better understand the impacts of rural land uses on constructed and natural stormwater systems, including streams, wetlands, and nearshore marine areas.

- Additional compliance and enforcement support to promote best management practices and ensure uniform implementation of existing environmental laws that pertain to water resources.

Figure ES.1 illustrates the relative emphasis of the proposed services.

Figure ES.1: Distribution of Proposed Program Expenditures



The proposal will cost $3.1 million in 2000 and will be funded through a new surface water management fee levied in the proposed service area. The rate structure is the same as in the existing surface water management service area and includes an $85.02 per year flat rate for residential parcels. Commercial and multi-family properties with greater than 10 percent impervious surface will be charged per acre, on a sliding scale, depending on the percent of impervious surface.

CONCLUSION

The *Rural Drainage and Water Quality Proposal* will provide stormwater management services

that protect property and water resources in all of unincorporated King County. Providing these services will help ensure functional constructed and natural drainage systems, meet growth management goals, and preserve rural character. Moreover, the proposal responds to regulatory mandates from the Washington State Growth Management Act (GMA), CWA, and ESA.

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The technical appendices are incorporated herein by reference. These appendices are available in either electronic or print format by contacting:

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LIST OF ACRONYMS

ACRONYM	DEFINITION
BMP	Best Management Practices
CIP	Capital Improvement Program
CWA	Clean Water Act
Cx	Current Expense
DHI	Drainage and Habitat Improvement
DNR	Department of Natural Resources
ESA	Endangered Species Act
FCZD	Flood Control Zone District
KCC	King County Code
KCD	King Conservation District
LMO	Livestock Management Ordinance
NDAP	Neighborhood Drainage Assistance Program
NPDES	National Pollutant Discharge Elimination System
RCW	Revised Code of Washington
RIF	River Improvement Fund
SHRP	Small Habitat Restoration Program
SPD	Special Purpose District
SWM	Surface Water Management
UAC	Unincorporated Area Council
WLR	Water and Land Resources

CHAPTER ONE
PURPOSE AND NEED

PURPOSE

The purpose of this document is to present a plan for the extension of King County's surface water management services to the whole of unincorporated King County. While King County has managed a comprehensive stormwater program in its unincorporated western one third since 1987, services in the remainder of the County have been largely limited to the maintenance of road right-of-way drainage systems and County-owned stormwater facilities. Without a comprehensive stormwater program in this region, King County is unable to help address widespread problems stemming from the alteration of natural runoff patterns, and from human activities that impact flooding and water quality. These problems range from property damage caused by flooding and erosion to widespread degradation of streams, lakes, aquifers, wetlands, and coastal resources. Establishment of a program to address these problems is critical not only to the health, safety, and welfare of King County citizens, but is required under the Clean Water Act (CWA) and may soon be a condition for legal coverage under the Endangered Species Act (ESA).

GOALS

The goals of the program presented in this document are to address stormwater problems, support King County's growth management objectives, and facilitate implementation of related federal, state, and local regulations. These goals are described below.

- ***Address Stormwater Problems while Protecting Rural Livelihoods***

  This proposal will provide funding to help solve long-standing and emerging stormwater problems that impact both rural livelihoods and aquatic resources. Currently, there is a backlog of 850 complaints from the proposed service area. These problems include impacts typical of urban land use (increased runoff, erosion and property damage due to flooding), as well as problems found in predominantly rural areas (runoff from agricultural fields, improper manure management and damage to stream buffers.) The proposal includes drainage maintenance activities, capital projects, education, and technical assistance to help solve these problems.

- ***Support King County's Growth Management Objectives***

  The ability to sustain long-term economic development requires that growth be managed to protect the fragile environment upon which a healthy quality of life depends. King County's water resources are a significant part of the Northwest's amenities that attract growth. Even as we enjoy the economic benefits of steady growth, we are witnessing a rapid decline in the health and quality of the natural resources that sustain us. Evidence of this decline includes swimming beach closures, increased flooding and erosion along natural waterways, and the addition of the native chinook salmon to the Federal endangered species list. Over the past

several years, we have learned that even modest levels of development, as well as farm, forestry, and rural lifestyle activities can contribute to this degradation.

King County's Comprehensive Planning policies, which provide the underpinnings of growth management strategies, include strong advocacy for the protection of water resources and maintenance of the rural character beyond the urban growth boundary. Both the protection of these water resources and maintenance of this rural character are supported by this proposal.

- ***Comply with Local, State, and Federal Regulations***

  The programs funded through this proposal substantially meet the letter and intent of local, state and federal regulations governing the management of surface waters. This proposal also helps the County comply with what are expected to be requirements for stormwater management in the negotiated 4(d) rule promulgated under the federal Endangered Species Act. Finally, many of the programs in this proposal are required under the National Pollutant Discharge Elimination System (NPDES) permit. The proposal ensures the County's ability to comply by providing dedicated funding for these activities. The permit area as defined by the Federal government includes <u>all</u> of unincorporated King County.

  In order to meet these goals, this proposal recommends an extension of the current surface water management service area and the assessment of surface water management fees to include the eastern two-thirds of unincorporated King County and Vashon-Maury Island. Map 1.1 indicates the areas that will be affected by this proposal.

STRATEGIES

Specific strategies that have guided the existing surface water management programs, and the development of this proposal include actions that:

- Mitigate drainage problems by restoring, maintaining and improving constructed and natural stormwater systems.
- Help protect and improve the water quality and beneficial uses of lakes, streams, aquifers, and wetlands through stewardship, watershed assessments, and environmental monitoring.
- Support the implementation of farm, livestock, and forestry practices that help protect aquatic resources and promote water quality.
- Develop an integrated approach to surface water management that helps ensure compliance with local, state and federal regulatory mandates and ESA.
- Build a strong foundation for future regional initiatives that helps protect regional fisheries and water quality in regionally-significant water bodies, and that reduces flood hazards along our major rivers.

CONTEXT FOR PROPOSAL

King County government, together with the support and hard work of its citizens, has developed

an effective, comprehensive, and nationally recognized surface water management program. This program, now administered by the Water and Land Resources Division, has solved hundreds of drainage and water quality problems, prepared and implemented comprehensive basin and water quality plans, constructed and maintained stormwater facilities, and facilitated basin stewardship activities in a large part of the unincorporated area. Establishment of these major program initiatives has furthered our region's ability to manage the surface water impacts of rapid growth that threaten our public health and safety, and water quality.

One of the greatest strengths of King County's surface water management program has been its ability to evolve in response to new challenges and legal mandates. In the past, this adaptability resulted in the introduction of water quality monitoring and protection, the establishment of the Neighborhood Drainage Assistance (NDA) Program, development of the basin steward program, and the coordination of multi-jurisdictional watershed teams to respond to problems at the watershed level. The following section describe the evolution of King County's surface water management program and the policies and strategies that have shaped it.

HISTORY OF SURFACE WATER MANAGEMENT IN KING COUNTY

Ordinance 7590, Adopted April 1986

King County Ordinance 7590, adopted in April 1986, provided for Title 9 of the King County Code, thereby establishing a comprehensive surface water management program. The need for the program grew out of public concerns about the environmental impacts of surface water runoff and increasing urbanization.

Runoff occurs when rain falls on hard surfaces such as roads, rooftops, or parking lots and eventually flows into nearby streams, lakes, or wetlands. Runoff increases when an area becomes progressively more urbanized through the construction of homes, roads, and commercial buildings. Problems can occur dramatically as the result of rapid commercial growth, or incrementally over time as a result of single-lot residential development. When surface water runoff is unable to infiltrate into the natural ground cover, stream velocities and volumes increase, resulting in erosion, flooding, reduced water quality, and sedimentation in downstream areas. These problems can result in both property damage and degradation of natural aquatic resources.

County officials recognized the complexity of these problems and established the Surface Water Management (SWM) Division to help address them. The features of the initial surface water management program included a combination of long-range planning, regulation, capital construction, and maintenance. These features were designed to work in unison in order to help protect water resources and prevent uncontrolled surface water runoff.

The surface water management program was set up to be funded by a service charge, known as the SWM fee. This fee was, and continues to be, paid by property owners in the unincorporated parts of the western third of King County. Due to the newness of this kind of program and initial public concerns about a new fee, the SWM fee was set to "sunset" on December 31, 1991, after a five-year period, and pending review of the program's effectiveness. This review, conducted in 1989-91, resulted in the *1991 King County Surface Water Management Strategic Plan.*

1991 King County Surface Water Management Strategic Plan

The purpose of the *1991 King County Surface Water Management Strategic Plan* was to guide the future of the SWM Division in its goal of helping to protect King County's water resources - wetlands, streams, and lakes - from impacts of uncontrolled urbanization and land development. The recommendations that were received as part of the public review process strongly supported continuation and expansion of the original program to help achieve the goal of resource protection.

The Strategic Plan outlined a direction for the continuation of the SWM Division and its surface water management program and fee for the years 1992-1997. It recommended, and resulted in, the removal of the sunset clause, the inclusion of the Middle Cedar River basin in the surface water management program service area, and an increase in the SWM fee from $29.89 to $85.02 per year for residential parcels to meet new and enhanced program initiatives.

The proposal also recommended new efforts to help manage growth and resolve long-standing neighborhood flooding and erosion problems. The strategy to address these issues involved acceleration of the basin planning, public education, and capital improvement programs, integration of services for water quality protection into the program, and implementation of strategies for neighborhood flooding problems through the creation of the NDA Program .

1994 Surface Water Management Program Status Report & Policy Recommendations

The *1994 Surface Water Management Program Status Report & Policy Recommendations* document was a revision to the direction provided by the 1991 Strategic Plan. The 1994 Policy Recommendations took into consideration the effect of the 1990 and 1991 GMA, including the need to respond to the trend toward annexations and incorporations in King County. It was recognized that the increase in annexations and incorporations would substantially alter the surface water management program by reducing the size and changing the characteristics of the service area, and reducing revenue from an estimated $17.7 million in 1994 to $12.4 million in 1997.

The 1994 Policy Recommendations provided specific guidance for a revised, more effective surface water management program. The result was a change in service level in the areas of basin planning, capital projects, and technical assistance and education. The basin planning effort was reduced, and focus was shifted to the ongoing management of watersheds. The goal for capital construction was reduced in response to declining fee revenue, with the focus shifting to the highest priority needs throughout the service area. The technical assistance and education effort was expanded, reducing the role of regulations and enforcement.

King County Stormwater Management Program 1996-2000

In 1996, following the merger of the Municipality of Metropolitan Seattle (Metro) and King County in 1994, some County departments were re-organized and the surface water management program came under the auspices of the newly created Water and Land Resources (WLR) Division, in the Department of Natural Resources (DNR). The 1997 *King County Stormwater Management Program* (SWMP) document is the natural successor to the *1991 King County Surface Water Management Strategic Plan* and the *1994 Surface Water Management Program*

Status Report & Policy Recommendations, in that it provides direction for the Water and Land Resources Division. The 1997 SWMP was written to address the legal requirements of the County's NPDES Municipal Stormwater Discharge Permit, required by the Federal government and the Washington State Department of Ecology. It also outlined the challenges facing DNR's WLR Division in the five years following the report, and established the strategies with which the Division intended to address them.

The SWMP document identified four main priorities to shape King County's stormwater management activities for the five-year NPDES permit (renewal required in 2000): find innovative funding sources; establish strong working relationships with neighboring jurisdictions; construct capital projects to provide flood control, habitat restoration, and water quality; and expand technical assistance and education programs, while reducing reliance on regulations and enforcement.

The SWMP document defines the NPDES permit area as "unincorporated King County." In order comply with the permit, King County must conduct programs in the proposed service area. This proposal ensures dedicated funding for these programs in order to meet CWA goals of recreation and aesthetic enjoyment, habitat protection, and the safe consumption of fish and shellfish.

Today's Challenges

Today's program must continue to adapt in the face of new challenges, including development, changing service needs, and regulatory mandates. The *Rural Drainage and Water Quality Proposal* is the response to these challenges.

Rapid Development

Among these challenges is the impact of development activity that has occurred in the rural area, both rapidly in large-scale residential and commercial developments and incrementally in single-family residences. Development in the proposed service area has begun to degrade aquatic conveyance and storage systems and has resulted in a backlog of unresolved drainage problems.

Meeting Rural Service Needs

Another challenge to be addressed is the existence of service needs specific to the proposed service area. When King County's surface water management program was established in 1987, it was designed to help address problems that occur in urbanizing environments. Since that time, annexations and incorporations have changed the composition of the area in which DNR'S WLR DIVISION provides existing surface water management services.

In addition, recent science has shown that rural activities have a significant impact on stormwater and water quality. Even modest increases in development can result in damage to fragile ecosystems. This proposal provides an opportunity to develop programs that are responsive to these changing circumstances.

Regional Watershed Approach

The region is also shifting toward an interjurisdictional, watershed-based approach to water resources management. The "Regional Needs Assessment for Surface Water Management"

(RNA) process prompted by the 1994 policy work has led to a recommendation that there is both a "local" and a "regional" responsibility for fish, flooding, and water quality protection. One of the key agreements of the RNA process has been that all local jurisdictions should have a local surface water management program in place in order to be eligible for regional funding assistance. This proposal puts King County fully in compliance with that expectation.

Legal Mandates

This proposal will help allow King County to meet the new legal mandates expected under ESA, CWA, and the increasingly complex requirements of state and local laws.

REPORT OVERVIEW

This report frames critical issues for policymakers regarding the proposal to provide surface water management services outside of the existing boundary of the King County surface water management service area. Chapter Two examines the types of services currently provided by DNR's WLR Division, and recommends services and costs that respond to the unique characteristics and needs of each of the major sub-areas in the expansion area. Chapter Three describes the rate structure and financial assumptions. Subsequent chapters describe the results of public outreach efforts conducted, as well as the issues of service delivery and accountability.

PROPOSED SERVICES AND COSTS

This chapter describes the services recommended for the proposed surface water management service area. Many of the services discussed in this chapter are based on services in King County's current surface water management program. Service levels for the proposed service area have been developed from known or estimated needs. These "traditional" services include the investigation and resolution of drainage problems and water quality complaints, maintenance of stormwater facilities, design and construction of capital facilities, watershed management, stewardship, and monitoring. It is anticipated that each local jurisdiction will be required to administer a stormwater program that includes these elements in order to receive legal coverage under the 4(d) rule of ESA.

Services in this proposal have been tailored to respond to citizen input and evaluation of specific needs. For example, the program is able to include pilot implementation of the monitoring portion of the *Vashon-Maury Island Ground Water Management Plan*, and increased compliance support and enforcement of water resource regulations.

This proposal will allow the "Fish and Ditch" project to move out of the pilot stage and become a regular program. This program, which was initiated as an inter-departmental effort involving DDES and DNR, will help farmers meet mitigation requirements associated with the removal of sediment from ditches and streams used to drain agricultural lands, while also complying with requirements of ESA and the CWA

This chapter also discusses programs currently supported by the Current Expense (Cx) and River Improvement Fund (RIF) that would be transferred to this new program. These services include technical assistance to farmers implementing best management practices basin stewardship, complaint response, facility maintenance, and hydrologic monitoring. If the proposal is adopted, a total of $247,000 in RIF funds will be available annually for high priority levee and revetment maintenance, and grant match for flood hazard mitigation projects.

The programs currently funded through Cx funds must compete with other County functions unrelated to surface water management. These programs include implementation of the Livestock Management Ordinance, which is intended to protect property owners from water-borne pollutants, and programs to encourage foresters to keep their lands in forest production rather than convert them to urban uses which increase stormwater runoff. Extension of the surface water management service area will ensure stable, long-term provision of these rural support services. Funding these programs through this proposal will replace $112,000 annually in Cx funds currently used for these services.

In order to ensure that citizen concerns over accountability and the ability of communities to affect the long-term direction of the program, a program coordinator position has been included in the proposal. Specific responsibilities of the Rural Surface Water Management Program Coordinator will be to track and report performance in the proposed service area, report progress to, and receive feedback from, the affected communities, and help shape the overall program in response to shifting priorities and emerging needs. The Program Coordinator will serve as an advocate for the rural communities with respect to surface water management issues, and will work with other County agencies to improve communication and County responsiveness. The Program Coordinator will also seek grant funds to supplement projects and programs in the proposed service area.

Table 2.1 summarizes the proposed service package by major program area. More detailed descriptions of each program area follow.

Table 2.1 Summary of Proposed Service Package for 2000

Service Category	Cost	Percent of Total	Total Staff (FTEs)[1]
Drainage and Water Quality Complaint Response Complaint tracking, technical support to citizens and other agencies, construction of engineered solutions to drainage problems, code compliance, and referrals.	590,000	19.3%	6.0
Management of Stormwater Facilities Inspection of stormwater facilities, retrofit engineering, repair and retrofit of stormwater facilities and transfer to the Department of Transportation for labor and materials needed to carry out maintenance and retrofit projects.	194,000	6.3%	1.0
Assessment of Natural and Constructed Drainage Systems Reconnaissance-level assessment of sub-basins, identification of critical resource areas and stormwater management needs, coordination of local and regional planning needs.	220,000	7.2%	2.5
Capital Improvement Program Bonded CIP projects and programs, pay-as-you-go CIP programs, CIP planning and reconnaissance, CIP monitoring.	502,000	16.5%	2.0
Technical Support for Agriculture and Forestry Provide technical assistance to livestock owners for compliance with King County Code, assist farmers with ditch maintenance BMPs, and provide technical assistance to rural small-lot forest owners.	283,000	9.3%	3.0
Stewardship Work with technical teams and citizens to implement surface water programs and projects, instruct and support citizens involved in lake monitoring and stewardship efforts, provide educational opportunities for stewardship projects carried out by citizen groups, Watershed Action Grants.	216,000	7.1%	3.0
Monitoring Stream flow and rainfall monitoring to support planning and engineering needs, drainage ditch baseline and performance monitoring, monitoring base for lake stewardship program, water quality monitoring of groundwater, support to WRIA-level monitoring, Geographic Information Systems and Graphics support.	408,000	13.4%	5.0
Administration and Indirect Costs Includes finance and billing, offices and utilities, department resources, and share of Countywide costs.	637,000	20.9%	-
Totals	3,048,000[2]	100%	22.5

[1] Rounded to nearest 0.5 FTE. Includes 13.4 new FTEs. The remaining FTEs represent staff currently funded through existing funding sources.

[2] Actual annual revenue is projected at $3,158,000. This budget does not include $110,000 that must be held in reserve during the program's first two years. (Reserve required by the King County Executive Office of Budget.)

DRAINAGE AND WATER QUALITY COMPLAINT RESPONSE

Central to any surface water management program is the ability to respond to citizen concerns about potential drainage and water quality problems. The complaint response system includes the ability to receive and track information about citizen concerns, investigate problems to determine cause and responsibility, identify potential solutions to problems, and where possible, take action to settle the complaint. Program staff also provide citizens, agencies, and organizations with background information on local surface water problems and regulations. The WLR Division's complaint response program has been well received, with 90 percent of the customers surveyed since 1996 indicating that their complaints were handled well.

The *Rural Drainage and Water Quality Proposal* will allow full implementation of all aspects of the drainage and water quality complaint response program in the proposed service area. This would substantially reduce the number of unresolved drainage and water quality problems.

Complaint Tracking

The WLR Division's complaint tracking system provides customers with a starting point for the resolution of drainage and water quality problems. This formal process for managing and tracking citizen concerns is the foundation of the the WLR Division's customer service program. Drainage complaints are typically the result of the cumulative effects of multiple small-scale changes in runoff patterns, storm impacts to drainage systems and stormwater facilities, or are requests for technical assistance. Water quality complaints typically concern illegal dumping, sedimentation, algae blooms, and other health related problems.

Since 1992, approximately 850 citizen complaints originating in the proposed service area have been received. While all complaints are formally documented, the ability of DNR'S WLR Division to take action on problems in the proposed service area has been limited by a lack of dedicated funding.

Technical Support to Citizens and Other Agencies

DNR's WLR Division provides technical support to citizens with on-the-ground surface water problems. Examples of the types of needs addressed through education and technical assistance include "how-to" information on private drainage system installation and repairs, provision of drainage plans for surrounding streets and property, information on water quality Best Management Practices (BMPs), private problem resolution, and referral to other agencies.

When working to solve or prevent problems, citizens and organizations require background information about drainage and surface water issues. Through its involvement in a wide range of drainage issues, DNR's WLR Division has accumulated and cataloged a substantial amount of information on drainage systems, problems, and solutions that is routinely shared with citizens, consultants, and other agencies. Making this information available helps citizens make informed decisions that prevent future water resource problems. This service is available to all citizens in unincorporated King County; the range and quality of available information is very limited for the proposed service area, however, due to the fact that only a minimal amount of surface water management work has been authorized there to date.

Engineered Solutions to Drainage Problems

Drainage and erosion complaints resulting from damaged or worn conveyance systems, sediment and debris accumulation, and increased runoff due to the cumulative effects of upstream development must be addressed using on-the-ground, engineered solutions. Historically, King County's surface water management program has not been authorized to undertake projects to solve drainage problems on private land. This limitation was greatly reduced in 1996, with the development of the NDA Program. This program allows DNR's WLR Division to construct projects designed to solve problems originating on, or affecting, multiple private parcels. The WLR Division has developed a tiered approach to designing and implementing solutions to these problems. This approach matches the complexity of the problem with the appropriate level of engineering.

Since 1996, the NDA Program has addressed over 200 significant drainage problems in the existing surface water management service area. Currently there is a backlog of nearly 100 complaints from the proposed service area that should be reviewed as possible on-the-ground projects. Without the proposed service area extension, these complaints will be left unresolved.

Code Compliance

King County Code gives DNR's WLR Division the authority to facilitate compliance with drainage and water quality regulations. While every effort is made to bring code-related problems into compliance though education and technical assistance, formal enforcement actions are sometimes needed.

Most of the citizen groups visited during the preparation of the *Rural Drainage and Water Quality Proposal* expressed concern that King County was not adequately enforcing existing environmental laws. A detailed analysis of these complaints was not possible within the context of this proposal, however, recent additions to the code enforcement staff at DDES, combined with the technical assistance and stewardship services offered in proposal, should reduce the frequency and persistence of code compliance problems.

While it is anticipated that the new code enforcement staff will be able to address many of the concerns heard during the outreach process, the future enforcement need is not well understood. If the service area is extended, the WLR Division's increased presence in the community will raise the community's awareness of the letter and intent of County environmental regulations. This increased awareness will reduce the number of violations as citizens learn the value of good stewardship, but may also result in an increase in the number complaints stemming from perceived violations that might otherwise not be recognized or reported.

In response to a potential increase in the need for additional code enforcement support, two additional staff have been included in this proposal. The specific role and placement of these compliance support staff will be defined during implementation of the proposed program.

Budget and Staff Impacts

The budget and staff required to provide drainage and water quality complaint response services to unincorporated King County in the proposed service area total $574,000 and include 6.2 Full Time Equivalents (FTEs). The program will include $92,000 for the design, permitting, and construction of small capital projects under the NDA Program and $248,000 for regulatory

compliance activities. The remaining funds ($234,000) will provide basic complaint response services, technical assistance, and management of the Drainage Services Section. An additional $170,000 will be available through the Capital Improvement Program (described later in this chapter) to help solve drainage and water quality problems through the construction of larger, more complex projects.

MANAGEMENT OF STORMWATER FACILITIES

Facilities that control the discharge of stormwater and that remove pollutants make up the bulk of the structural solutions applied to surface water problems in King County. Facilities managed by DNR's WLR Division include retention/detention (R/D) facilities (ponds, vaults, underground tanks, and infiltration systems), water quality facilities (wetponds, biofiltration swales, constructed wetlands, sand filters, and oil/water separators), and conveyance systems (ditches, pipes, and catchbasins). These systems are most often built in conjunction with new development, but include regional facilities designed and constructed by the Department of Natural Resources.

Once constructed, stormwater facilities require on-going maintenance to ensure they continue to perform as intended. Maintenance of R/D facilities typically includes the removal of accumulated sediment and debris, routine mowing, and minor repairs to mechanical appurtenances. Management of water quality facilities is more complex, requiring intensive vegetation management, inspection and maintenance of flow control features, and restoration or replacement of filter media. King County plays an active role in the management of three categories of stormwater facilities: residential, commercial, and regional.

Residential Stormwater Facilities

Residential stormwater facilities typically serve all or part of a single development and are built on a tract dedicated to this purpose. While the design and construction of these facilities is the responsibility of the developer, King County ultimately assumes responsibility for their long-term operation and maintenance. To meet this obligation, DNR's WLR Division operates an inspection program to ensure that County facilities are maintained in accordance with the maintenance guidelines in the *Surface Water Design Manual*.

DNR's WLR Division currently maintains 136 residential facilities in the proposed service area. Approximately ten new facilities are added to the inventory each year. The construction of advanced water quality facilities in response to recent changes in the *Surface Water Design Manual* will result in an increased demand for maintenance services.

Commercial Stormwater Facilities

Commercial developments (which include businesses, apartments, and condominiums) are subject to stormwater management regulations that are similar to those applied to residential developments. However, unlike stormwater facilities in single family residential neighborhoods, these facilities remain the property and responsibility of the commercial landowner or manager.

King County staff conduct annual inspections of commercial facilities to identify maintenance needs for the property managers. In return for completion of the necessary maintenance, property owners receive a discount on their annual SWM fees. Without this inspection service, commercial facilities do not receive adequate maintenance.

Currently there are 111 commercial stormwater facilities in the proposed service area. Projections that take into account the impact of declining annexations and incorporations suggest that the number of commercial facilities in the proposed service area will increase by approximately ten per year.

Regional Stormwater Facilities

Regional stormwater facilities constructed and/or managed by DNR's WLR Division typically serve large areas with a variety of land uses, and are intended to address problems resulting from large storm events. Examples of regional facilities include pump stations, regional R/D facilities, sedimentation ponds, and enclosed drainage systems. These facilities are inspected annually and maintained by DNR's WLR Division.

While there is currently only one regional drainage facility in the proposed service area (as compared to 174 in the existing service area), the extension of the program will likely result in the construction of regional facilities to help reduce flooding and protect natural resources in the proposed service area. In addition, growing pressure to accept full responsibility for off right-of-way drainage easements, may result in the need for increased maintenance resources. They are currently maintained on an ad-hoc basis through the NDA Program.

Retrofits

In addition to performing routine maintenance of stormwater facilities, DNR's WLR Division manages an upgrade and retrofit program for deficient facilities. Retrofit projects are carried out on facilities that were either designed according to past standards, or that could be improved using new technology. Retrofit projects that address citizen complaints have traditionally received the highest priority. Since the establishment of the retrofit program in 1987, a total of 69 facilities have been upgraded.

It is not known how many deficient or failing systems there are in the proposed service area. While routine maintenance should keep the rural area facilities operational, there has never been a formal review of these facilities to identify retrofit needs. While failing systems that affect people are usually reported, failures that result in damage to rural stream systems may go unnoticed. Inclusion of the rural area in the surface water management program would allow deficient facilities to be identified and upgraded, thereby reducing downstream storm water impacts.

Budget and Staff Impacts

The budget and staff needs for stormwater facility management services in the proposed service area total $209,000 and support 1.0 FTEs. This amount includes $97,000 for the design, permitting and completion of maintenance and retrofit projects. The remaining funds would be used for facility inspection and tasks that support the refinement and implementation of design standards.

INVENTORY AND ASSESSMENT OF WATERSHED CONDITIONS

Traditionally, King County has relied on basin plans to guide its surface water management programs. These basin plans have varied in scope and focus, but have typically included a strong baseline data-collection element, evaluation of current conditions, identification and ranking of problems, development of potential solutions (regulatory, capital, and programmatic), and the creation of implementation and monitoring schedules. The *Rural Drainage and Water Quality Proposal* would provide surface water management services in parts of King County for which comprehensive basin plans have never been prepared, and for which background information on high-value resources and existing and emerging problems is either scattered or non-existent. Securing baseline data supports the development of future surface water services by providing information on existing and future conditions, and potential solutions to problems. It is an essential first step in the long-term management of rural water resources.

The *Rural Drainage and Water Quality Proposal* is being forwarded at a time when the emphasis of watershed planning efforts has shifted from a local to a regional scale and become focused on responding to regulatory mandates. These mandates include ESA and CWA. While the County's watershed teams continue to implement basin plans in several watersheds through the basin stewardship program, much of their attention has turned to multi-jurisdictional, watershed-based salmon recovery planning. These salmon recovery processes are still in their early stages, and are focused primarily on preparing baseline assessments of the major watersheds, including those in the proposed service area. The products of these assessments, which will include the collection and assembly of data on geomorphic and hydrologic characteristics, fish habitat, and land use, will provide baseline information for the development of local projects and programs. The watershed assessments are scheduled for completion by the end of 2002; the watershed plans will be completed by the end of 2005.

This proposal will provide baseline data-collection and resources assessment staff who will support the existing watershed teams. Most of the proposed staff will work directly with the watershed teams. Preliminary data collected through the watershed assessments will be fed back to the local programs via the basin stewards and other program implementation staff.

Budget and Staff Impacts

The *Rural Drainage and Water Quality Proposal* would fund two new FTEs to support the regional watershed teams at a cost of $172,000, and would replace $37,000 from the RIF to support the Snoqualmie Senior Ecologist. Also included in the budget for this program area is a share ($11,000) of the cost of developing and maintaining King County's federally mandated NPDES stormwater discharge permit.

CAPITAL IMPROVEMENT PROGRAM

The goal of the WLR Division's Capital Improvement Program (CIP) is to design and help implement solutions to larger, more complex surface water problems. These problems include stream bank erosion and channel downcutting, poor water quality, habitat degradation, and flooding. Partial solutions to these problems include construction of regional stormwater storage facilities, piped conveyance systems, streambank revegetation, stream channel restoration, removal of blockages to fish passage, erosion control, and the construction of sediment traps. For the proposed service area, the CIP would also support the regional watershed teams in the identification of solutions to known and emerging problems.

Proposed Program

The CIP effort in the proposed service area would begin with an intensive investigation of major problems identified through the complaint response system. Solutions developed during this process (which would be completed during the first two years of the program) would be coordinated with the habitat assessment efforts of the watershed teams. The CIP effort would include a modest construction program during the first year to help solve selected high priority, low complexity problems. Right-of-way and preliminary design on one large, three-year project would also be initiated.

By the end of the first year of the program (2001), information from the CIP reconnaissance effort would allow prioritization of a more substantial set of projects that would be predominantly bond-funded. These projects would substantially reduce the backlog of drainage complaints and would address several large CIP needs already known to the County. Work on the first bond-funded projects would begin in 2002.

In 2003, after completion of both the CIP reconnaissance efforts and the watershed inventories, the County will estimate the total CIP need and propose a revised schedule and funding plan. After the initial two years, monies will become available due to the completion of the CIP reconnaissance and establishment of the fund balance reserve required by the Office of Budget. These monies will be available to cover debt service on a second bond-financed CIP.

It is important to note that, given the unknown need in the proposed service area, the CIP should be viewed initially as an annual program, rather than a one-time capital cost. Over time, the presence of surface water management programs in the proposed service area will result in a level of institutional knowledge that will allow more comprehensive estimates of the total CIP need.

To efficiently manage the wide range of projects, the CIP is divided into four main areas: large, small, emergency, and opportunity. Following are descriptions of each of these program areas. Examples of proposed large CIP projects from the proposed service area are provided.

Large CIP

The large project CIP typically includes capital projects identified through basin plans, special studies, and complaints. The CIP reconnaissance effort in 2000 and 2001 would include a review of the existing backlog of drainage complaints and known problems, as well as coordination with

the regional watershed teams to help prioritize project needs and develop potential solutions. On average, projects in this category take three years to complete. Possible large CIP projects for the new service area include:

Wilderness Rim Flooding: Local drainage concentrates in a closed depression southeast of North Bend, resulting in extreme flooding of several homes. The proposed solution includes increasing and preserving the infiltration capacity of the closed depression and flood-proofing some of the homes. The estimated cost of this project is $321,000.

Mitchell Hill Flooding: The cumulative effects of incremental development southwest of Fall City result in flooding on roads and private property. The King County Department of Transportation will complete a solutions analysis by the end of 1999. Alternatives range from enhancing existing infiltration, to redirecting stream flows. Preliminary cost estimates range from $175,000 to $1,000,000.

Horseshoe Lake Flooding: Homes built in the floodplain of this small, southeast King County lake are periodically flooded. Mitigation options include elevation or floodproofing of these homes. The estimated cost is $700,000.

Small CIP

DNR's WLR Division constructs small capital improvement projects to help resolve small habitat and localized flooding problems that cumulatively lead to the system-wide deterioration of valuable habitat, water quality, or conveyance systems. Small CIP projects are those with construction costs under $70,000. They are brought to the attention of DNR's WLR Division CIP staff through citizen complaints, basin plans, County staff, community groups, and agreements with permitting agencies, private developers, and other jurisdictions. The small CIP is divided into three sub-areas, each managed by teams with expertise customized to meet the program objectives. These sub-areas are the NDA Program, Drainage and Habitat Improvement (DHI), and the Small Habitat Restoration Program (SHRP).

Neighborhood Drainage Assistance Program

The NDA Program gives DNR's WLR Division the authority, funding, and ability to manage surface water runoff outside County-maintained rights-of-way and tracts. The NDA Program, in conjunction with the work of the King County Roads Division, allows DNR's WLR Division to more comprehensively manage stormwater systems. Citizens receive direct benefit from County assistance in response to flooding and erosion problems that cause property damage, threaten health and safety, and degrade the natural water resources within their neighborhoods. The NDA Program controls runoff at its source, and therefore helps prevent degradation of downstream resources.

Drainage and Habitat Improvement Program

The DHI Program builds small capital projects that help resolve minor drainage, erosion, and sedimentation problems, and/or improve wetlands, water quality, and habitat in or along natural stream systems. The program focuses on projects with at least one of the following attributes: a level of technical complexity requiring hydrologic modeling, backflow analysis, detailed plans, and/or extensive survey; the potential for significant downstream impacts; or the need for heavy equipment use.

Small Habitat Restoration Program

The SHRP builds small capital projects along natural stream systems, focusing on ecological restoration or habitat protection. SHRP projects are not complex and can typically be constructed with hand labor and light equipment, as defined in the SAO. These projects originate from basin plans, staff member recommendations, the general public, and community groups.

Emergency CIP

The emergency capital improvement program allows DNR's WLR Division to respond to emergencies or critical needs without drawing funds from other DNR programs. Typical examples of emergencies are system failures, washouts, and slides that threaten health or property. For emergency response to major storm events, DNR's WLR Division seeks special funding appropriation to augment the emergency CIP fund.

Opportunity CIP

These are generally large CIP projects that are a high priority for another jurisdiction or a developer, who in turn offers to participate in the funding. If the project fits DNR objectives for the area or problem, an attempt is made to establish an agreement to share funding and responsibility. These projects allow DNR's WLR Division to leverage SWM fee revenues with outside funds.

Proposed Schedule

Table 2.2 summarizes an implementation schedule for the first five years of the rural proposed service area CIP. This table describes the overall capability of the CIP; the actual schedule may be adjusted in response to changing needs and priorities.

Table 2.2 CIP Implementation Schedule (Expenditures in thousands)

Capital Improvement Program	2000 ($)	2001 ($)	2002 ($)	2003 ($)	2004 ($)	2005 ($)
CIP Reconnaissance	200	200	50	0	0	0
Large CIP[1]	102	702	716	1700	1000	1000
Small CIP Programs[2]	200	300	300	300	300	350
Other CIP Programs[3]	0	105	125	145	145	145
Total	502	1307	1191	1985	1335	1615

[1] Wilderness Rim Flooding scheduled to begin in 2000. Other outstanding large CIP projects to be prioritized for 2001 bond-financed program.
[2] Includes Neighborhood Drainage Assistance (NDA), Drainage and Habitat Improvement (DHI) and Small Habitat Restoration (SHRP) Programs.
[3]Includes CIP Monitoring, Salvage Planting Program, and Opportunity Program.

Budget and Staff Impact

Funding and staff levels of the *Rural Drainage and Water Quality Proposal* CIP would vary as the program progresses from the initial reconnaissance phase to full implementation of a bond-funded program. Funding for the CIP would include a combination of programs funded on an annual pay-as-you-go basis, and bond-funded projects and programs. Table 2.3 summarizes the estimated staff and budget impacts during the first five years of the program.

Table 2.3 Program Staffing and Budget (Expenditures in Thousands)

Capital Improvement Program	2000		2001[1]		2002		2003[1]		2004		2005	
	FTE	$	FTE	$	FTE	$	FTE	$	FTE	$	FTE	$
PAYG[2] Expenditure	2.0	502	1.4	255	1.6	275	1.8	295	2.6	495	2.6	495
Financed Expenditure	0	0	5.4	1052	3.7	916	6.8	1689	3.4	840	4.5	1120
Bond Debt Service	_	0	_	246	_	246	_	490	_	490	_	490
Total Expenditure and Budget Impact	2.0	502	6.8	1553	5.3	1437	8.6[3]	2474	6.0	1825	7.1	2105

[1] Proposed Bond year
[2] Pay-as-you-go projects and programs
[3] Peak year labor needs may be met using temporary staff or consultant services.

STEWARDSHIP

DNR's stewardship programs promote increased public knowledge of water resource issues; identify and prioritize on-the-ground projects to help correct flooding; help to implement water quality and habitat improvements; and establish and support volunteer monitoring programs that track changes in watershed conditions.

Helping citizens understand and become part of the solution to drainage and water quality problems provides benefits that go significantly beyond what can be achieved through government action alone. Citizens who receive technical assistance and education, and who are encouraged to participate directly in surface water management programs, help develop a grassroots sense of responsibility regarding the protection and restoration of water resources. This ongoing volunteer stewardship protects the investments that the County has made in the form of capital improvement and restoration projects.

Descriptions of each of these stewardship programs follow.

Basin Stewards

In 1990 King County began assigning stewards to the drainage basins in which management plans had been, or were being, prepared. The demand for stewardship services has since led to the assignment of stewards to geographic areas without basin plans. Basin steward responsibilities have included responding to citizen inquiries; providing educational opportunities; serving as a liaison between project staff, landowners, and the community; and working with community groups and technical staff to carry out monitoring programs.

Currently there are six stewards assigned to watersheds in the existing surface water management service area. There are two stewards who do work in the proposed service area, the Snoqualmie River Steward and the Central Puget Sound steward. The work performed by the Snoqualmie River Steward in the proposed service area is supported by the RIF. The very limited services of the Central Puget Sound steward on Vashon-Maury Island are supported by Wastewater Treatment funds. There is no funding for stewards for the Upper Green River, the Newaukum Creek Basin, or the White River. The *Rural Drainage and Water Quality Proposal* would provide dedicated funding for the existing Snoqualmie basin steward and would create new steward positions for the Upper Green River/Newaukum Plateau/White River area, and for Vashon-Maury Island.

Lake Stewardship

Land use around the lakes in rural King County is characterized by dense, older development. This development typically predates modern stormwater control standards and contributes directly to the degradation of these lakes.

In 1993, DNR's WLR Division established the Lake Stewardship Program in response to citizen concerns over declining water quality and increased aquatic weed growth in area lakes. Through this program, citizens collect and report data on water level, precipitation, and water quality, and gain access to educational opportunities. Citizens use knowledge gained through the program to assess and evaluate future impacts associated with watershed development. Working with these proactive communities, King County has received state grants for the completion of five lake

restoration plans and three aquatic plant management plans for lakes in the current service area. The program has also been instrumental in the early detection of the invasive aquatic weed hydrilla, as well as in the implementation of eradication efforts targeted towards it.

In the proposed service area, there are over a dozen lakes that are candidates for support from the Lake Stewardship program. Community members from Alice, Joy, Marcel, Easter, and Margaret lakes are currently seeking these services. The current proposal will initiate stewardship programs on seven lakes and provide a foundation for the establishment of lake management plans.

Watershed Action Grants

Grassroots community groups and schools often lack the funds to complete habitat restoration and water quality awareness projects. The Watershed Action Grant Program helps fill this gap by providing funding for such projects and a venue for equitable competition for public funds. In the current service area the program offers $60,000 annually for local education or restoration projects that address stormwater issues affecting streams, wetlands, rivers, lakes, marine waters, near-shore habitat, water quality, water reuse, and salmon conservation issues.

The program has received multiple inquiries from groups in the proposed service area, but has had to deny funding to these groups. While these inquiries indicate that this program is needed in the proposed service area, funding for the program comes from both the SWM and Wastewater Treatment fees and cannot be spent outside these two fee-collection areas. The *Rural Drainage and Water Quality Proposal* will provide $20,000 annually for citizen-driven projects in the proposed service area.

Budget and Staff Impact

The budget and staff resources required to provide stewardship services in the proposed service area total $216,000 and include two new stewards, partial funding of the existing Snoqualmie steward and 0.3 FTE for the initiation of lake management activities. The program also includes $20,000 for Watershed Action Grants.

TECHNICAL SUPPORT FOR FARM AND FOREST BEST MANAGEMENT PRACTICES

Effective management of storm and surface water runoff and non-point source pollutants from agricultural and forest lands is a critical component of managing the quantity and quality of surface waters in the proposed service area. This management also protects the abundant fish and wildlife populations that depend upon the estuaries, rivers, streams, aquifers, wetlands and lakes in this area. The appropriate focus of services is technical support programs that teach property owners how to apply best management practices for non-point source control, erosion control, drainage and runoff management, effective management of livestock wastes, and vegetation management. In addition, technical support and materials for small drainage, source control, restoration and riparian protection projects is included within the capital improvement and drainage assistance programs.

Extension of the surface water management service area will secure funding for the technical assistance programs that help farmers comply with the Livestock Management Ordinance (LMO). The program will also assist in transitioning the pilot "Fish and Ditch" agricultural ditch maintenance program to a service that will be available to a larger number of farmers.

The Rural Lands Programs

Livestock Management

In 1993 King County passed the LMO, (Ordinance 11168). The intent of the LMO is to reduce damage to natural stormwater systems caused by inappropriate livestock management practices. Damages caused by poor livestock management include degraded water quality, sedimentation, and destabilization of stream banks. The LMO sets allowable animal densities and management standards for parcels zoned for livestock. Livestock owners who are not in compliance with the LMO may meet ordinance management standards on their own, or may develop and implement a farm management plan with the help of the King Conservation District (KCD). Livestock BMPs include manure management, wetland and stream corridor management, measures that minimize the negative affects of providing water for livestock from streams, and management of confinement areas and pastures. Livestock owners who choose to implement a farm management plan may be allowed to reduce the width of buffer strips and/or have higher animal densities.

DNR's WLR Division currently runs a program to help livestock owners understand both the letter and intent of the LMO, as well as how to minimize the impact of their livestock on water quality and aquatic resources. This program includes the production of educational materials, public presentations, and on-site farm visits to identify problems and develop solutions.

This program is currently available Countywide, but lacks long-term funding. The current funding provides one staff person who serves as the County liaison to an estimated 10,000 livestock owners. This position is funded through the KCD assessment which sunsets in the year 2000. The *Rural Drainage and Water Quality Proposal* would fund a second Livestock Program Best Management Technician through the proposed service area SWM fee in 1999 and evaluate overall service levels in 2000.

Agricultural Ditch Maintenance

Much of the agricultural land in King County cannot be farmed unless excess water is drained from the fields by mid-to-late spring. This drainage requirement is usually achieved though a network of drain tiles, manmade ditches, and natural waterways. Even under the best conditions, sediment fills these ditches, blocking drain tiles and preventing the fields from draining. Forest clearing and urbanization adjacent to farm lands may be exacerbating this problem. Historically, agricultural drainage ditches and natural streams used to help drain farmland have been maintained without consideration for their use by salmonids and other aquatic life.

In 1990 the SAO (Ordinance 10870) established stream buffer protection requirements for streams and wetlands, but agricultural land was exempted from these buffer requirements. Additionally, mechanical ditch maintenance was not allowed under the SAO without a permit that ensured that BMPs were followed. These BMPs were developed in 1998.

In order to better understand technical and logistical implications of the new BMPs, DNR's WLR Division worked in conjunction with DDES and two local farmers to facilitate the maintenance of two agricultural ditches in the Snoqualmie Valley. The demonstration project gave the County the experience it needed to address several practical issues and identify gaps between the conceptual understanding and actual implementation of the ditch maintenance BMPs. One of the major problems encountered during the demonstration project was the lack of either a dedicated funding source or staff to initiate this entirely new program.

The *Rural Drainage and Water Quality Proposal* will establish an ongoing technical assistance program to address the backlog of unmaintained agricultural ditches. This program would continue to offer assistance with permit applications, guidance on the installation of mitigation materials, and assistance with obtaining materials. DNR's WLR Division would also continue the current ditch mapping and classification efforts to help establish site-specific mitigation requirements. Although the program is being developed in the proposed service area, the polices and procedures refined through the program will be applicable to the agricultural areas within the existing service area.

Forest Management

A fundamental cause of surface water management problems in our region is the conversion of forestland to other uses. Removal of forest cover greatly increases the rate and volume of runoff to natural waterways, reduces or eliminates ground water recharge, and allows sediment, fertilizers, pesticides, dissolved metals, and hydrocarbons to contaminate streams and wetlands. Encouraging the preservation of forestlands is essential to the maintenance of the rural landscape. Encouraging alternatives to the one-time harvest of timber and the creation of large lawns and non-productive fields may be one of the most effective ways to protect our aquatic resources in the proposed service area.

DNR's WLR Division currently offers educational materials, classes, and direct technical assistance to help rural property owners manage their forested lands in a manner that promotes long-term forest retention. The goal of the program is to reduce the occurrence of new stormwater problems caused by unnecessary removal of forest cover.

Currently there is one rural lands forester assigned to work in Cedar/Lake Washington Watershed inside the SWM service area. SWM fees from the existing service area provide funding for this

position. A second forester, funded through soon-to-expire bond funds and Cx funds, is assigned to the rest of King County. This proposal shifts funding for the existing forester from the Cx fund to the new service area fund.

Budget and Staff Impacts

The total annual cost of the proposed rural technical service programs would be $283,000. These funds would include $70,000 to support 1.0 FTE currently funded through the Arts and Natural Resource Initiative, $42,600 for 0.6 FTE funded through Cx and $50,000 for agricultural drainage ditch maintenance currently funded by the RIF. The program would include an additional $50,000 for agricultural ditch maintenance and projects and $70,000 for 1.0 FTE for livestock ordinance implementation.

MONITORING

Surface water and water resource monitoring can be divided into four areas: baseline data collection, implementation or compliance monitoring, performance or effectiveness monitoring, and ambient monitoring. Each of these areas has a specific focus, but all work in concert to aid in the management of water resources.

Baseline monitoring data are used to design programs in previously unstudied geographic areas, or in areas with problems. Ambient monitoring provides information on the overall effectiveness of watershed management activities and is used to inform adaptive management processes. Implementation monitoring is used to determine the degree to which specific best management practices are being carried out. It is also used to determine whether additional incentives are needed to ensure compliance with new regulations. Performance monitoring provides data on the effectiveness of specific projects and measures.

Descriptions of each of the monitoring efforts recommended for the proposed service area follow. These descriptions are grouped to help the reader understand why each is proposed and how the resulting data will be used. Data from any program area, or specific phase of a monitoring effort will however, frequently support other areas.

Baseline and Ambient Monitoring

Precipitation

Precipitation data are necessary for understanding the hydrology of a given sub basin, but are only available for a small number basins in the proposed service area. Collecting these data cost-effectively requires the use of continuous recording gauges. Gauges that are currently located in the proposed service area include one in the Patterson Creek basin (supported by the River Improvemet Fund), one on Vashon-Maury Island (funded by the Wastewater Treatment Division); and one in Enumclaw used for flood warning in the Lower Green River (funded by the SWM fee).

This proposal would allow the installation of additional continuous recording gauges to fill gaps in the existing network, and employ non-recording gauges staffed by volunteers for supplemental data.

Groundwater

In rural areas ground water monitoring is crucial for effective surface water management. In these areas, streams are largely fed by groundwater, and the quantity and quality of the water entering ground water aquifers are directly affected by land use activities. Impervious surfaces result in a reduction in the amount of stormwater that infiltrates into both the shallow and deep groundwater tables. This reduction, in conjunction with groundwater withdrawals for domestic and commercial use, threatens the baseflow that is critical to the year-round health of streams, lakes and wetlands. Stormwater that comes into contact with pollutants before infiltrating into the soil can carry these pollutants to the groundwater and subsequently to nearby surface waters.

Protection of surface waters is improved through ground water monitoring, which provides early

detection of both reduced baseflow potential and impending contamination of surface waters. In addition to providing fundamental data on the success of watershed management strategies, and information on how to alter these strategies to protect aquatic resources, monitoring provides data that can be used by ground water users for the long-term protection of domestic and commercial water supplies.

This proposal includes funding for a pilot water level and water quality monitoring program on Vashon-Maury Island. This effort will be closely coordinated with the anticipated implementation of the *Vashon-Maury Island Ground Water Management Plan*.

Stream and River Flow

Streamflow data are generally available for larger rivers and watersheds in the proposed service area through the United States Geological Survey and the United States Army Corps of Engineers. Stream flow data for the smaller basins, which are the primary focus of local surface water management programs are sparse. This gauging effort is limited to the three stream gauges in the Patterson Creek basin (funded by the RIF); two gauges on Vashon-Maury Island (funded by the Wastewater Treatment Division); and two stream gauges in the Snoqualmie River watershed, associated with the urban planned developments near Redmond (also funded through the SWM fee.)

Runoff data are essential not only to understanding the basic health of a stream system, but also to the development of projects intended to reduce hazards and protect or enhance aquatic habitat.

The current proposal would fund the exisiting Patterson Creek gauges and allow installation of four new continuous gauging stations in the proposed service area.

Small Lakes

The Lake Stewardship program includes a strong volunteer-based monitoring component that provides lake level and water quality monitoring on nearly 50 King County lakes. The proposed program would support volunteer monitoring and laboratory services for twelve to fifteen lakes in the proposed service area. This program is described further in the Stewardship section of this chapter.

Performance Monitoring

Livestock Ordinance Implementation

To accurately report how successful the LMO has been at reducing livestock impacts on stormwater systems, the Livestock Ordinance Committee must have access to monitoring data that describes the implementation of the required BMPs, and there actual effectiveness. In response to the need for livestock BMP monitoring, DNR has proposed a monitoring program that will improve the Committees understanding of the effectiveness of the LMO and associated BMPs. The program links Farm Plans and their component BMPs to specific environmental indicators. It will also develop monitoring protocols to track changes in these indicators in streams that have been degraded by poor livestock keeping practices.

This monitoring program will be carried out jointly by the KCD, the Natural Resources Conservation Service, the Washington Department of Fish and Wildlife, and the King County

WLR Division. The *Rural Drainage and Water Quality Proposal* will provide 0.2 FTE technical staff in support of this effort.

CIP Monitoring

Monitoring to determine the effectiveness of capital projects has become a routine part of the Capital Improvement Program. CIP monitoring, which is usually a required permit condition, typically includes a combination of hydrologic and ecological monitoring. This monitoring typically continues for three to five years after project completion.

Post construction monitoring is used to determine the degree to which DNR projects have met design goals and permit conditions, and to make project-specific operation and maintenance recommendations. CIP monitoring also supports the development of design recommendations for future projects. These design recommendations may range from the application of fundamental design principles to the selection of construction materials. Results of the CIP monitoring projects are published in the annual CIP monitoring report.

Monitoring activities associated with capital projects are budgeted in the CIP program. For the year 2000, monitoring costs in this proposal should be minimal, as no projects will be constructed, although some baseline data collection may be necessary. In subsequent years, monitoring is expected to typically cost between $3,000 and $5,000 per projects (spent over three to five years) depending on permit requirements.

Data Management and Reporting

Monitoring Data Compilation for NPDES Permit Compliance

The County's monitoring programs help ensure and document compliance with the federally mandated NPDES permit. Monitoring and reporting requirements are outlined in the SWMP, prepared in response to the NPDES permit. The SWMP includes input from DDES, Roads Services, Drainage Services, Rivers Section, Public Outreach, Watershed Coordination, Watershed Ecology and others. Each group provides project or basin-level monitoring that is used to evaluate program effectiveness, regulations, and County policies.

This proposal will support 0.2 FTE in support of a portion of the NPDES permit compliance monitoring and reporting requirements.

Data Management

Coordination of data collection and monitoring activities both across King County government and by other levels of government and universities is an important first step in getting an accurate and comprehensive picture of environmental conditions. If the effort is not made to ensure that the data is captured, quality checked, stored, maintained and made available in a consistent manner, the resulting "information" will likely be fragmented, incomplete, or difficult to access. Improved access to quality data will improve coordination between County agencies and other interested parties, resulting in the more efficient management of water resources and resolution of surface water management problems.

Data management technologies have advanced significantly in the past few years, as has the recognition of the value of the accumulated knowledge of an organization. DNR's WLR

Division is undertaking a division-wide effort to revamp natural resource data management procedures for everything from field data collection to database development and documenting and updating GIS base coverage. Seamless access to information collected across programs and divisions is critical to the success of King County's ESA response.

The *Rural Drainage and Water Quality Proposal* will include 1.0 FTE for technical writing, GIS, and graphics support for monitoring programs in the proposed service area.

Budget and Staff Impacts

The total budget for the monitoring program in the proposed service area is $408,000. This includes $346,000 for 4.9 FTEs, $51,000 for laboratory services, and $11,000 for stream gauging equipment.

ADMINISTRATION AND INDIRECT COSTS

Administration and indirect costs associated with the program for the proposed service area will be $637,000, or approximately 21 percent of the total program revenue.

Administration and indirect costs includes WLR Division management, office support, supplies and equipment, billing services, personnel, communications, rent, utilities, legal support, a share of department management, and a 1.75 percent Business and Occupation Tax. Table 2.4 summarizes the administration and indirect costs associated with providing the services outlined in this chapter.

Table 2.4 Summary of Administrative and Indirect Costs

Description	Cost
Rent	111,680
Office equipment[1], supplies, and utilities	90,817
Business and Occupation Tax (1.75% of Revenue)	58,991
Share of Division administrative costs (Includes finance, billing, office support staff, and division level management)	230,642
Share of Countywide costs	84,273
Systems, ITS, Finance[2]	60,327
TOTAL	**$636,730**

[1] One time costs. In future years, most of these funds would be available for other services.

[2] Estimated costs. Actual costs will be based on actual use of services.

CHAPTER THREE
RATE STRUCTURE AND IMPACTS

This section describes the proposed rate structure to fund the *Rural Drainage and Water Quality Proposal*. The rate structure is the same as used in the existing surface water management service area--$85.02 per single family residence and varying rates for commercial properties, based on percentage of impervious area.

FINANCIAL CONTEXT

In addition to the cost detail in Chapter Two, the following information on long-term revenue projections and capital financing assumptions is provided as background for the description of the rate structure.

Long-term revenue projections for the proposed service area are predicted to be relatively stable. Only very small portions of the proposed service area are designated urban growth areas under the 1990/91 GMA, and these are the only sections that could potentially be annexed or incorporated out of the King County service area. At this point, only minor annexations around the small cities of Duvall, Carnation, Skykomish, Snoqualmie, North Bend, and Enumclaw are expected. It is assumed that the slow but steady growth of the rural Snoqualmie Valley, Enumclaw Plateau, Vashon-Maury Island, and the developing areas along the White and Skykomish Rivers, will keep pace with the annexations, resulting in little net change in demand for service or revenue collection.

Large capital projects will be financed in accordance with the policies of King County's existing surface water management program. The primary method will be to issue limited tax general obligation bonds, with annual debt service paid from annual service charge revenues. The County will collect these revenues under the fee structure described in the remainder of this chapter. (For detail on capital costs, see the section "Capital Improvement Program" in Chapter Two.)

RATE STRUCTURE OVERVIEW

The Metropolitan King County Council adopted the original surface water management rate structure in 1986, assessing fees on all developed properties in the surface water management service area. The basis for that assessment is the concept that development contributes to the need for stormwater services by increasing the amount of runoff during rainstorms. The measure used to calculate contribution of runoff from each parcel is the amount of impervious surface (i.e., hard surfaces such as parking lots, roofs, and driveways). Thus, the fundamental basis for customer fees is the amount of impervious surface on their property.

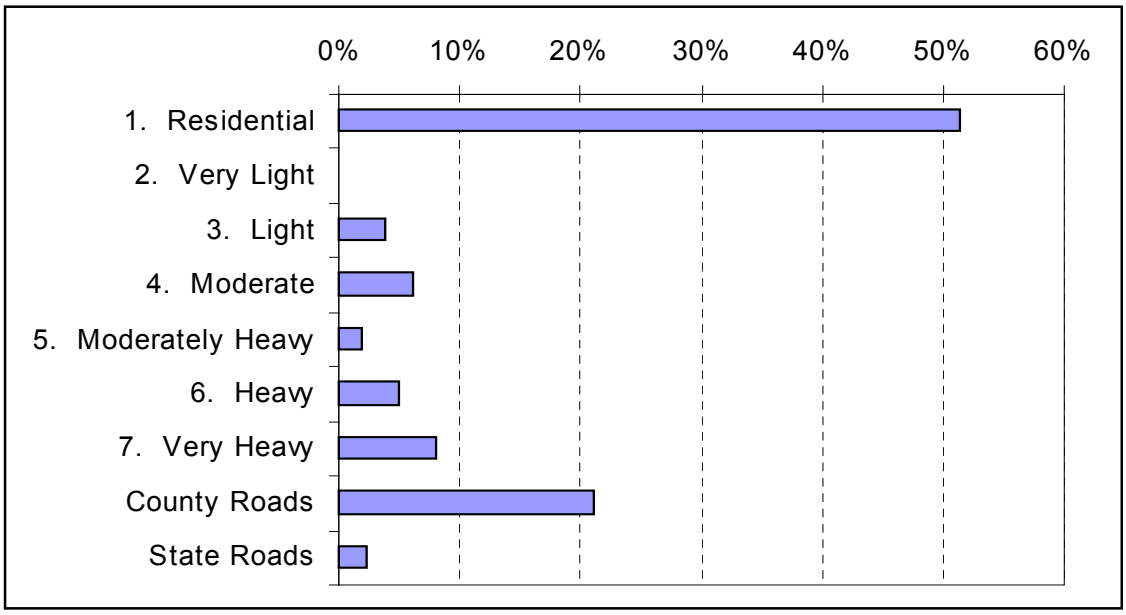
Impervious surface is considered an equitable method for distributing program costs, since the services described in the proposal address problems that are a direct result of surface water runoff, or reflect important public policy tools to prevent such runoff problems. These problems include threats to public health and safety from improper drainage, property damage from surface

water erosion and flooding, or water quality degradation due to pollutants carried by runoff. Many other municipalities across the country use impervious surface as a basis for assessing stormwater fees, such as: Ann Arbor, Michigan; Boulder, Colorado; and Jefferson County, Kentucky. In King County, most cities use impervious surface as a fee basis including both Seattle and Bellevue.

The proposed service area and the existing service area are very similar in character. While this proposal is titled "The *Rural* Drainage and Water Quality Proposal", it is important to recognize that the existing surface water mangement program is already a predominantly rural program. Most urban development has incorporated or been annexed into suburban cities, leaving seventy percent of the existing service area outside the Urban Growth Boundary. The existing service area also contains significant portions of the County-designated Rural Forest District, Rural Farm District, and the Agricultural Production District. As such, the problems caused by runoff in the two areas (existing and proposed) are largely the same, as are the services proposed to address those problems.

The remainder of the chapter describes the rate structure and the separate ratepayer categories for the proposed service area. As a preview to this discussion, Figure 3.1 shows the anticipated distribution of revenue from these categories. This can be considered a measure of each category's relative contribution to the problem.

Figure 3.1: Distribution of Revenue by Rate Category



Note: The Very Light category contributes less than 1% of total revenue.

COMMERCIAL CHARGES

Commercial parcels are organized into different rate categories based on their percentage of impervious surface, as shown in Table 3.1. The commercial fees are calculated by multiplying the appropriate rate by the total acreage of the parcel. That is, if a commercial parcel is 35 percent impervious (Category 4—Moderate), and the parcel size is one half acre, the resulting annual charge is

$$\$410.98 \times ½ = \$205.49$$

The exception to this formula is the Very Light category of parcels with ten percent impervious surface or less. Because the large open areas of these lightly developed properties result in significantly less impact to the surface water system, and since many of these properties are recreational, agricultural, and timber lands identified in the King County comprehensive plan, it is County public policy that they should be encouraged to retain their low intensity of development. As in the existing service area, these parcels will continue to be charged a flat rate which will encourage the retention of large areas of very lightly developed land.

Table 3.1: Rate Structure for Commercial Parcels

Category	Percent Impervious	Annual Rate
Very Light	0 to ≤ 10%	$85.02 per parcel
Light	> 10% to ≤ 20%	$198.40 per acre
Moderate	> 20% to ≤ 45%	$410.98 per acre
Moderately Heavy	> 45% to ≤ 65%	$793.60 per acre
Heavy	> 65% to ≤ 85%	$1,006.16 per acre
Very Heavy	> 85% to ≤ 100%	$1,317.94 per acre

ROADS CHARGES

County and State roads are treated similarly to commercial accounts, with one exception. The fees are calculated by multiplying the roadway acreage, including the entire right-of-way, by a rate per acre – derived from the percent impervious area for different types of roadways. However, consistent with state law, the fee is calculated for only 30 percent of the roads. This benefit recognizes ongoing expenditures by State and County Departments of Transportation for the construction, operation, and maintenance of facilities designed to control stormwater runoff from road and highway rights of way. This discount is required for State highways under RCW 90.03.525. It is applied to County roadways using the same justification.

RESIDENTIAL CHARGES

Residential parcels are charged a uniform fee of $85.02. Unlike commercial charges, the residential charges are not based on the characteristics of individual parcels, but on a

representative average amount of impervious area. This method is proposed for reasons of efficiency since measuring the impervious surface of the approximately 120,000 residences in unincorporated King County would be prohibitively expensive. The calculation of this residential average determines the impervious area that most accurately represents the residential contribution to the problem. To understand this calculation, consider the concept referred to in the scientific literature as "effective impervious area."

Effective Impervious Area

Although the surface water management rate structure is based on impervious surface, not all impervious surface contributes equally to stormwater runoff. Since the early 1980s, the scientific literature has described differences in runoff between commercial and residential development. The difference stems from the varying degrees to which impervious surface is directly connected to the stormwater drainage system. Directly connected impervious surfaces have a bigger impact on runoff, since runoff is generated nearly instantaneously and no portion of it is absorbed into the ground. Thus, both the amount of runoff, and the force with which it damages natural systems, are increased.

The literature on watershed hydrology (Alley and Veenhuis, 1983) distinguishes impervious area from "effective impervious area." The latter refers to impervious surface that is *directly* connected to the stormwater drainage system. The authors found that the difference between "total impervious area" (TIA) and "effective impervious area" (EIA) varied sharply for different types of development.

In general, commercial properties are developed so that the impervious area is almost completely connected to the drainage system. In other words, the effective impervious area (EIA) is nearly the same as the actual or total impervious area (TIA). In most cases, commercial developments have constructed drains that remove runoff from their property. Rainfall runs off parking lots and into catch basins, which is then piped to the public drainage system. Alley and Veenhuis found that the relationship of EIA to TIA for commercial development was

$$EIA_{commercial} = 0.94\ TIA$$

Residential property is characterized differently. In general, residences make greater use of the lawns, greenways, and pasture that surround their homes to absorb stormwater. Roof drains empty onto splash blocks, which distribute water over the lawn. Driveways and parking areas are built without catch basins, draining instead to the adjacent soil. In other words, for a given amount of *total* impervious area, residential development will have a lower *effective* impervious area than commercial development.

Additionally, the difference between EIA and TIA for residential development is not constant, but varies with the density of development. Dense residential development has a greater effective impervious area than sparse residential development, for a given area of land. Alley and Veenhuis found the residential relationship of EIA to TIA to be

$$EIA_{residential} = 0.15\ TIA^{1.41}$$

where both EIA and TIA are expressed as percentages of impervious area for the total land area under consideration. This relationship was determined in a study of hydrologic basins around

Denver, Colorado. Subsequent work has verified this same relationship for basins in King County, and the concept has been incorporated into the County's own hydrologic models used to predict the impacts of stormwater runoff.

Calculating the Representative Residential Impervious Area

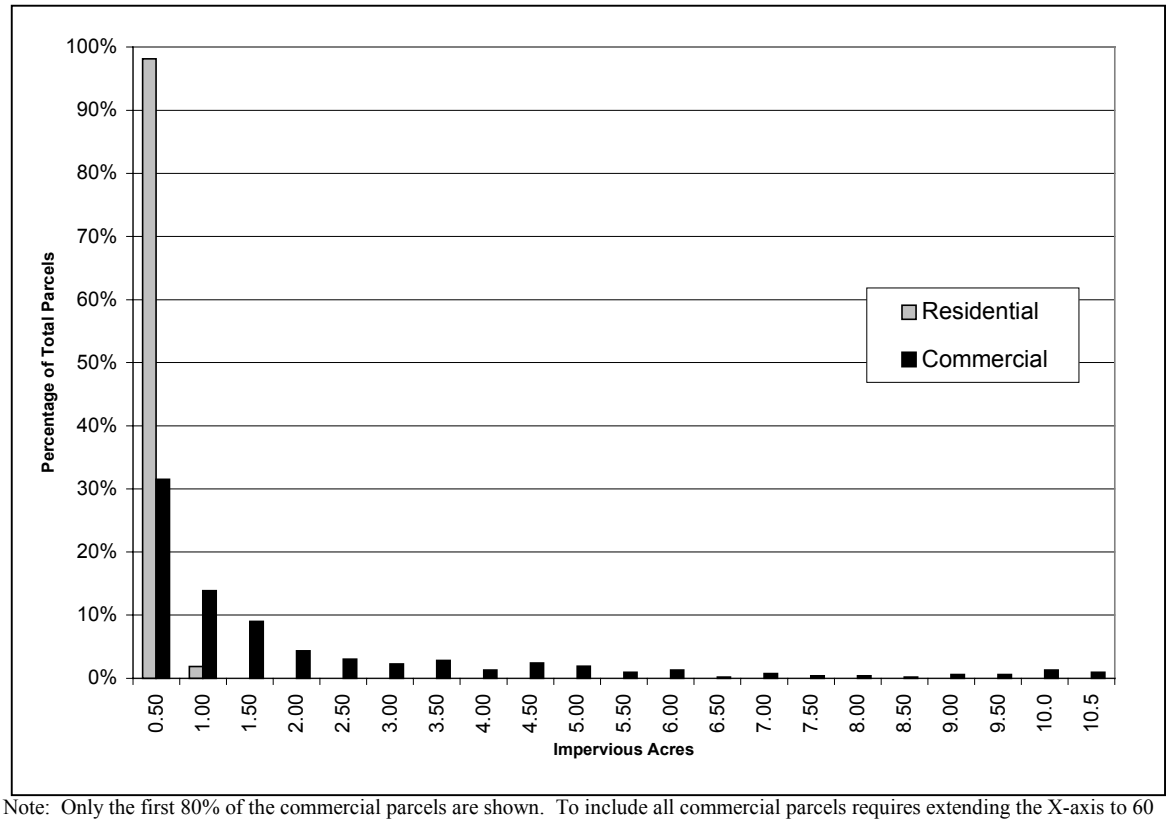
The following process is used to calculate the average amount of impervious surface per residential parcel for the proposed service area (and existing service area). First, field crews determine the amount of impervious surface for a representative sample of residential parcels. The measured data is then used to calculate the "effective" average impervious surface, based on the relationships discussed above for residential development. A second calculation is performed to account for the effective impervious relationship for commercial development, also discussed above. This second calculation is done to preserve the appropriate balance between the residential and commercial sectors, so as not to favor the one at the expense of the other.

The complete calculations for the average amount of effective residential impervious surface, both for the proposed service area and the existing service area, are contained in Appendix B.

Justification of the Uniform Fee

The uniform residential fee is justified as equitable because residential properties have a small variation in contribution to runoff. When compared to the distribution of impervious area across all parcels in the commercial sector, the residential distribution is highly concentrated. Figure 3.2 shows the distribution of impervious area for residential and commercial parcels. While nearly all residential accounts (98%) fall into a single category of impervious area (0 - .5 acres), the largest concentration of commercial accounts in a single category is only 32 percent. Thus the distribution of residential impervious acreage is very small compared to the distribution of commercial impervious acreage. If this data is adjusted to account for effective impervious area, which is a more accurate gauge of contribution to the problem, the residential distribution narrows even further relative to the commercial distribution.

Figure 3.2: Distribution of Impervious Area Discounts and Exemptions



Note: Only the first 80% of the commercial parcels are shown. To include all commercial parcels requires extending the X-axis to 60 impervious acres, making the graph very difficult to read.

In addition to the basic charges discussed above, it is recommended that the same discounts and exemptions available in the current service area be available in the proposed service area. The specific exemptions are as follows.

Low-Income Senior Citizen Exemption: The parcel may be exempt from fees if it is owned and is the personal residence of a person or persons determined by the County Assessor to be qualified for a low-income senior citizen property tax exemption authorized under RCW 84.36.381.

Open Space Discount: Parcels meeting the definition of open space in KCC 9.08.010 will be charged only for the area of impervious surface and at the rate under which the parcel is classified, using the total parcel acreage.

R/D Facility Maintenance Discount: Commercial parcels may receive a discount equal to the next lower rate category if they maintain any R/D stormwater facilities residing on their property to County standards set forth in KCC 9.04. Residential parcels meeting this condition will receive a discount equal to half the residential fee, or $42.51.

Public School Exemption: The parcel may be exempt from fees if owned or leased by a public school district which provides activities directly benefitting the King County surface water management program. These activities may include curriculum specific to the issues and

problems of surface and stormwater management, and activities in the community to expose students to the efforts required to restore, monitor, or enhance the surface and stormwater management system.

CHAPTER FOUR
PUBLIC OUTREACH FINDINGS

INTRODUCTION

This chapter describes how public opinion on the *Rural Drainage and Water Quality Proposal* was solicited, what was heard and how this feedback influenced the development of the proposal.

Twenty-seven informal meetings and conversations with proposed service area ratepayers took place between April and July 1999. Additional feedback came from a questionnaire distributed during each meeting. Seventy questionnaires were returned. A copy of the questionnaire, a table synthesizing questionnaire responses and the actual text of comments received are located in Appendix A. Additional outreach efforts, in conjunction with legislative review of this proposal, will begin in the fall of 1999. These efforts are outlined in Appendix C.

To gauge the opinion of the general public, in addition to those involved in organized community groups, County employees operated booths at three community fairs and the King County Fair on Saturdays in June and July. This activity provided good visibility for the proposal and provided an open-ended opportunity for citizen input.

It should be understood that this outreach effort was designed to produce qualitative, not quantitative results. Formal opinion polling has not been conducted, so the results presented here are not intended for statistical evaluation.

It should be kept in mind that this proposal reports feedback from a wide variety of citizen groups with different interests. The findings discussed here attempt to report perceived problems. Thorough analysis and discussion of the validity of these issues has not been conducted. Comments regarding services not supported by this proposal have been forwarded to the appropriate departments.

KEY FINDINGS

The key findings gained during community meetings, telephone conversations and from questionnaire responses indicate that citizens in the proposed service area are concerned about rural area land use and water quality, and have an appreciation for natural resources and rural quality of life. They provided a variety of insights, perspectives, and specific needs that helped shape the proposal as it is currently presented.

The following paragraphs summarize principal citizen concerns:

Citizens Perceived the Need for Planning to Evaluate the Effects of Land Development and Provide Baseline Information

Citizens thought that additional data collection and planning were needed in the proposed service area. Some groups were interested in establishing a baseline of information to monitor growth; others to protect natural resources. Perceived inadequate coordination among agencies and departments was cited as an ongoing problem. Data sharing and coordination of planning efforts and technical studies among governments and departments were advocated to ensure comprehensive management of rural areas and to reduce costs of data collection and management.

Citizens Perceived the Need for Additional Code Enforcement

In every rural community visited, citizens perceived the need for additional code enforcement of existing land use, water quality, and sensitive area regulations. Particular activities such as grading, clearing, and building without a permit were identified as needing attention. Citizens felt that a lack of resources available for adequate code enforcement has contributed to drainage, erosion, and land use problems. These citizens thought that more resources dedicated toward lessening the occurrence of clearing, grading and drainage law violators would help this problem. Specifically, use of enforcement personnel not tied to existing permits was suggested for the proposed service area.

Vashon - Maury Island Citizens Support Surface and Ground Water Monitoring

Vashon-Maury Island residents said that it is crucial to consider ground water in any attempt to manage surface water on the island. Citizens made the case that the quality and quantity of surface waters have a direct relationship to ground water, and since the island has no other water source, both need to be managed together. Although some drainage and erosion problems were acknowledged and identified, residents overwhelmingly supported implementation of surface and ground water monitoring. Specific activities suggested were identified in the list of priority services located in Appendix E of the *Vashon-Maury Island Ground Water Management Plan.*

OUTREACH METHODOLOGY

A wide range of rural area organizations, clubs, and community groups were contacted for this effort. In addition to homeowners associations, Rotary, Kiwanis and Lions clubs, Chambers of Commerce, and community groups with a land use, surface water, water supply, and environmental preservation focus were targeted. Once contact information was obtained, meetings were held to present components of the proposal for public response.

The two-fold purpose of this outreach was to "take the pulse" of the community regarding surface water management issues and to offer prospective ratepayers the opportunity to add constructive input to the proposal. At a typical meeting, basic drainage and land management

services were described and photographs, maps, a fact sheet, and a description of potential services were shared. Discussions were typically lively, and were followed by distribution of the questionnaire. The questionnaire asked respondents to rank potential services and offer suggestions. (A copy of the fact sheet, the questionnaire and a summary of its responses is located in Appendix A.) The questionnaire was not intended to gather a statistically valid sampling of opinions. Instead, it was developed to encourage participation and solicit feedback from those who chose to stay silent during group discussions or wished to provide additional information.

Internal and external research was required to establish a new public outreach network for eastern King County and Vashon-Maury Island. Telehone conversations helped develop lists of local opinion leaders while searches on the Internet, in local newspapers and in telephone books provided community group contact information.

Communications were conducted with King County staff members who had worked in the rural area. Contacts came primarily from the WLR Division's Resource Lands Section staff, as well as the watershed coordinators and basin stewards working in the rural areas. Outreach staff from the Executive's office, Council staff, the Office of Regional Policy and Planning, and the Department of Development and Environmental Services were also contacted.

Local opinion leaders were telephoned and interviewed. These conversations resulted in a list of community contacts thought to be interested in surface water and land use issues. These opinion leaders included, among others, former state legislators, environmental activists, members of the GMA Boundary Review Board and the Forest and Agricultural Commissions. Informal discussions led to more telephone interviews and one-on-one meetings.

The Internet was used to search for contact information and to broadcast information about the proposal. Special purpose districts including the KCD, the Patterson Creek Flood Control Zone District, and Drainage Districts 1, 2, 5, 6, and 13 were also contacted and were either interviewed or scheduled for an informational meeting and discussion. For example, the Fall City Community Association's web page posted the fact sheet for the *Rural Drainage and Water Quality Proposal* on its community bulletin board.

Subscriptions to local newspapers served as an important source of information. Community calendars, editorials, features, and letters to the editor offered an introduction to current rural area issues and provided context for many of the public opinions heard during the outreach process.

ISSUES & CONCERNS

This section summarizes issues and concerns expressed during the public outreach process. Comments received during *Rural Drainage and Water Quality Proposal* meetings and conversations were documented and subsequently categorized by issue. Actual text of those comments is located and categorized in Appendix A.

Service Need

Citizens in the proposed service area perceived the need for more attention to rural lands and waterways. They suggested that the cumulative effects of new residential development prompted

by steady population increases have had major impacts on the quality of rural area life in recent years.

Nevertheless, many rural area citizens expressed skepticism of government in general and frustrations that landscape changes are seemingly beyond their control. Some citizens felt that, on one hand, the County hasn't done enough to restrict rural area growth, and on the other, too many restrictions have been imposed on farmers, thereby threatening their existence.

Specific concerns included the adequacy of coordination among County departments and support for enforcement. In addition, coordination between King County and other government agencies was of concern. Some citizens thought this proposal should help individual property owners construct their own on-site infiltration systems. Others called for more maintenance and retrofitting of existing storm and surface water drainage systems.

On Vashon-Maury Island opinions on the need for drainage services (other than ground water-related services) varied. Some citizens acknowledged particular problems with sheet flooding and erosion, others thought the island did not have any drainage problems. Inadequate implementation of the LMO was also mentioned as a problem that has contributed to stream and Puget Sound water pollution.

Drainage Services

Different community and interest groups had varying levels of understanding of drainage and land use issues. Whereas some groups were very knowledgeable about hydrologic, drainage, and land use issues, others knew nothing about them. As a result, some citizens were able to articulate particular drainage concerns and others spoke in generalities.

In addition to those identified as priority services, citizens addressed the need for specific drainage services. They acknowledged the need for technical assistance, retrofits, and maintenance for existing drainage facilities, solutions to runoff and erosion problems, and the elimination of neighbor-to-neighbor water diversions that reduce the function of the entire drainage system.

Comments and questionnaire responses suggest that citizens understand how drainage problems resulting from development and poorly constructed drainage facilities have a detrimental effect on natural systems. As one citizen remarked, "This really isn't a rural area anymore. There are urban densities out here." The link between the need for maintenance and/or retrofit of a R/D pond and a creek or stream, downstream was well understood. Direct confirmations of this concept come from statements such as, "Retrofits of existing drainage ponds and pipes are needed" or "maintenance of facilities is close to negligible." Some citizens indicated that storm water control standards needed to be stronger.

Citizens thought that the identification of drainage problems was important, as were solutions to those problems. Technical assistance to both farmers and private landowners on drainage and water quality issues was thought to be needed.

On Vashon-Maury Island different groups disagreed as to the need for "traditional" drainage services. At the Vashon Community Council's Land Use & Natural Resources Committee one commentator didn't think Vashon-Maury Island had flooding or drainage problems. At the meeting with the Vashon Rotary however, the locations of four specific drainage problems were

identified. One commentator there spoke to drainage problems on Vashon by remarking, "There are definitely problems on Vashon. Residents aren't aware of the seriousness of them until the problems become huge and it's too late."

Citizens Request Additional Support for Enforcement of Environmental Regulations

Perhaps the single most common service need identified was the need for increased support for enforcement of land use and natural resource regulations. Citizens felt that increased enforcement of existing laws would reduce the occurrence of activities resulting in erosion, polluted waters, natural resource degradation, and drainage problems. More specifically, citizens recommended increased enforcement of the SAO, as it relates to clearing and grading violations. Questions regarding the adequacy of funds for code enforcement were raised. Citizens thought that roaming enforcement personnel would help solve this problem. They support the need for increased funding to support rural area enforcement and land use needs.

Comments were also received on the need for regional enforcement of surface water management plans in local municipalities. For example, drainage district commissioners made comments about local cities and their lack of surface water management services in portions of their jurisdictions. These comments highlight the fact that community groups and citizens are aware of the gaps in the administration of surface water management services.

Citizens Perceive the Need for Planning -- for a Variety of Reasons.

Although many rural area citizens recognized the need for planning, they also recognized its expense. One citizen suggested that planning expenditures should be restricted to a certain percentage of the budget. Another warned of using the words "planning" and "reconnaissance" when publicizing the proposal because of the publicly perceived negative connotation associated with previous County planning efforts.

Many citizens that supported planning efforts did so because they saw a need to establish baseline data that could inform actions to mitigate the effects of growth and new construction. Another suggestion was to include identification of natural resources and their protection in any surface water and stream planning efforts.

Citizens recognized the importance of drainage system mapping and how knowledge of watercourses and non-point sources can help maintain water quality. It was suggested that mapping might also be able to delineate the difference between surface water and river or creek water.

The opinion was voiced that planning might also help to better coordinate the activities of the various agencies involved in drainage and construction. As mentioned before, citizens felt that the lack of coordination and communication between King County's departments and divisions (particularly Roads, DDES, and the WLR Division) adversely affects rural lands.

Citizens thought that if the WLR Division was able to create a better inventory of rural area water systems and make that information available to other County departments, a more integrated approach to right-of-way drainage construction and permitting might result. They also suggested that such an approach should take drainage patterns of the entire watershed into account.

Vashon-Maury Island Citizens Support Surface and Ground Water Monitoring

On more than one occasion, Vashon-Maury Island residents emphasized the geologic and hydrologic differences between the island and other rural areas of King County. Citizens repeatedly mentioned that the island has a sole-source aquifer supplying all of its drinking water in contrast to the multitude of water sources for other rural areas. For this reason, ground water protection and monitoring of wells is a top priority for the island's citizens.

More than one Vashon-Maury Island group thought that consideration of ground water management should be included in a surface water management program. Because the island's water supply is limited and comes from one source, its quality and flow patterns are crucial to the island's citizens. Members of Vashon-Maury Island's former Ground Water Committee expressed frustration that ground and surface water problems were not jointly considered during the ten-year process of creating the *Vashon-Maury Island Ground Water Management Plan*.

Vashon-Maury Island residents have, in the past, advocated for the creation of a special-use, island-wide aquifer protection district. That idea is still alive and was thoroughly discussed at the second of two meetings with members of the Vashon Community Club's Natural Resources & Land Use Committee. At that meeting, the pros and cons of establishing an aquifer protection district versus negotiating for specific ground water management services in this proposal were discussed.

While committee members called for implementation of the priority services identified in the *Vashon-Maury Island Ground Water Management Plan*, they questioned the quality of the surface water data in it. Committee members thought that the *Rural Drainage and Water Quality Proposal* and the WLR Division should provide the technical and scientific expertise needed to gather better data and interpret it.

The Rate Structure

Who and How Much Will Be Charged, How Charges Will Be Assessed

Comments regarding fee equity and cost were volunteered in most discussions. Rural area landowners felt that the rate structure should take rural area parcel size and other characteristics into account. Rural area residents believed their parcels and neighborhoods to be larger and contain less impervious surface than those in more urbanized parts of western King County.

Rural landowners also felt that fee discounts or incentives should be granted to encourage environmentally friendly land use.

The amount of the potential fee was of major concern. Business owners and farmers spoke of rising costs and an increased regulatory climate contributing to the decline of their livelihoods. The cost of a surface water management program is the most important concern for these prospective ratepayers.

Perhaps the greatest concern expressed about the rate structure and potential fee was that timber producers wouldn't be charged for their contribution to drainage and erosion problems. Citizens who live downhill or downstream from timber producers were adamant that unless timber practices were assessed for their effects on drainage, serious inequities would exist and problems could never be solved.

Comments from several members of King County's Rural Forest Commission highlighted the connection between land cover and proper drainage. Members suggested that small forest landowners should be rewarded for keeping their lands covered because such lands serve as community drainage fields.

Several comments were made regarding the use of an alternative rate structure, suggesting that rural area residents are willing to consider subsidies or discounts to preserve agricultural activities and rural landscapes. It was strongly expressed that development should specifically be discouraged. High fees were suggested as a deterrent to new construction. Several citizens expressed concerns about the high administrative cost of maintaining a complex rate structure.

Publicity & Message

Thoughts And Tips On How To Publicize The Rural Drainage And Water Quality Proposal

Several citizens offered suggestions on how to effectively market the proposal. Tips on where to hold meetings and the best time to approach groups were also received and have been taken into account in planning future outreach efforts described in Appendix C.

Because the average person is not that familiar with the County's current surface water management program, citizens thought it important to explain the function of drainage facilities and why they are important. Others suggested highlighting successful projects in the current service area.

Accountability and Service Delivery

Ways To Make Sure King County Uses Fees Raised Efficiently And Appropriately

Many citizens were concerned with ways the proposal might develop a sense of accountability and respect with the public for a job well done. The creation of a *Rural Drainage and Water Quality Proposal* oversight commission was suggested. On Vashon-Maury Island, the Unincorporated Area Council was suggested as a place for WLR Division staff to report back on the accomplishments of the *Rural Drainage and Water Quality Proposal*.

Others thought the proposal should spell out the specifics of how much money would be spent in each community. During a discussion with the Preston Community Club, one meeting attendee was convinced that his rural fee dollars would be spent (inappropriately) in urban parts of the service area. This citizen was worried that his fee money would subsidize projects and services from which he and his neighborhood would never benefit. During this exchange, another citizen countered by explaining how much of the current service area fee dollars were spent for a planning and monitoring effort that proved integral to protecting and changing the zoning designation for an area outside of Issaquah. This example pointed out the benefits of cost sharing.

We Don't Need Surface Water Management Services

Some citizens felt that surface water management services and a fee to pay for them were not needed at all. Others thought that existing tax monies should be used to pay for the proposal.

Sentiments in the Enumclaw Plateau area were particularly skeptical and negative. At one meeting in Enumclaw, Drainage District Commissioners were asked if technical assistance to drain their ditches within a potentially complicated, ESA-related regulatory framework would be helpful. Unfortunately, agreement was not reached during that particular meeting, but the commissioners expressed a willingness to work with the County if unspecified problems encountered in past coordination with King County agencies were resolved.

Overall, these comments demonstrate that there is a high level of confusion and misinformation regarding the County's budget process and designated funding sources. To address this, future *Rural Drainage and Water Quality Proposal* communications will include a thorough discussion of current surface water management funding sources and a brief review of the competition for the County's Cx dollars.

Why Can't You Use The King Conservation District Model Or Let Local, Special Use Districts Provide These Services And Distribute The Funds?

These comments recognized the need for surface water management services but supported local control of funds raised and services performed. Citizens expressed that they liked how the KCD approaches problems and solves them one by one. It was acknowledged that one of the reasons the KCD has been so successful is that they have been able to build a rapport with farmers since they do not have enforcement responsibilities and they are not threatening. Accountability and service delivery issues are discussed in Chapter Five.

SUMMARY OF THE OUTREACH EFFORT

Number of meeting / conversation events	*27*
Number of questionnaires returned	70
Number of fact sheets distributed	*Approximately 3000*
Fact sheet distribution	*8 Rural King County Libraries* *All community group meetings* *Enumclaw Chamber of Commerce Newsletter With all meeting invitation mailings* *At community fairs*
Community fairs attended	*Fall City Days, Vashon Strawberry Festival, Snoqualmie Railroad Days, and the King County Fair.*
Internal communication	WLR Division"brown bag" to provide update and solicit staff feedback.
Community group meetings	*Preston Community Club; Snoqualmie Forum Members (Special Meeting); Fall City Community Association; Enumclaw Plateau citizens and Drainage District Commissioners; Vashon Community Council's Natural Resources & Land Use Committee (twice);*

	Vashon Water Purveyors Association; Tolt Community Club; Snoqualmie Valley Rotary; Snoqualmie Valley Kiwanis; Maple Valley Unincorporated Area Council; Vashon Chamber of Commerce; Upper Raging River Homeowners (Special Meeting); Vashon Rotary
Commissions/Regulatory Group meetings	*Patterson Creek Flood Control Zone District (twice); King County Rural Forest Commission; King County Agriculture Commission; King County's Livestock Oversight Committee; King Conservation District*

PUBLIC OUTREACH CONCLUSIONS

How input from the public was applied to the proposal.

During this initial public outreach process citizens were vocal in their opinion that surface water management services must be specific to the rural area. Citizens generally ranked alternative services higher on questionnaires than they did "traditional" surface water management services.

The three main service components that citizens felt were most needed are:

- Land use, waterway, and natural resource planning to compensate for the effects of development and to provide baseline information for surface water management.
- Consideration of ground water in surface water management on Vashon-Maury Island.
- Additional support for the enforcement of environmental laws as they pertain to the protection of surface waters.

In response to the requests for increased technical support for farmers, particularly regarding implementation of the LMO, the proposal adds another full time agricultural technical assistant. This staff member will be a much-needed addition to the WLR Division's technical assistance program, which currently employs only one agricultural technical assistant for all of King County.

Vashon-Maury Island's ground water management concerns are addressed in the *Rural Drainage and Water Quality Proposal*. The proposal recommends funding a portion of the priority services in the *Vashon-Maury Island Ground Water Management Plan*. The WLR Division will continue to work with its ground water managers to develop a model that equitably addresses Vashon's needs while initiating other ground water management program components in other areas of King County. This course of action recognizes the interdependency between surface and ground water quality and quantity while addressing citizen concerns.

To address the issue of accountability, the proposal outlines a process for adaptive management and public feedback, in Chapter Five. Meetings will be scheduled with Unincorporated Area Councils, (UACs) where they exist. In areas where UACs are absent, public meetings are planned annually to interact with citizens about surface water, ground water, water quality, and land-use issues. These meetings will offer the public an opportunity to help their surface water management program adapt to changing circumstances.

This proposal includes additional code compliance support for the implementation of existing laws designed to protect property owners and water resources. Proposed funding for this enforcement support has been included in direct response to citizen input. The specifics of how and where this support will be provided will be developed with DDES if the *Rural Drainage and Water Quality Proposal* is implemented.

CHAPTER FIVE
SERVICE DELIVERY AND PUBLIC ACCOUNTABILITY

This chapter addresses two issues that were raised by the public during development of this proposal: coordination with existing programs and public accountability. The sections that follow outline how King County's WLR Division will coordinate with special purpose districts while delivering surface water management services in the proposed service area. They also describe how the County plans to be accountable to the citizens funding the proposal.

COORDINATION WITH SPECIAL PURPOSE DISTRICTS

Cities or counties typically administer comprehensive surface water management programs of the type recommended in this proposal. Area- or problem-specific special purpose districts can deliver some of the services of such a program, but none typically offer a full range of surface water management services such as this proposal does.

Surface water management services are provided to some parts of rural eastern King County by special purpose districts (SPDs). SPDs are state-authorized, governmental entities with specifically defined service descriptions and geographical boundaries. SPDs have the authority to tax, issue bonds, and use revenues for activities that fit into their mission.

There are four different types of SPDs in King County, each with the ability to provide some variation of surface water management-related services. These SPDs are: drainage districts, flood control zone districts (FCZDs), lake management districts, and the KCD.

In the proposed service area, there are four drainage districts and one FCZD (Patterson Creek). There are no lake management districts in the proposed service area. As mentioned in Chapter Four, another type of SPD -- an aquifer protection district to finance ground water monitoring activities -- is being considered by residents on Vashon-Maury Island.

The following section reviews services typically provided by SPDs in the proposed Rural Drainage and Water Quality service area and describes how King County plans to coordinate with them.

The King Conservation District

The KCD is a governmental subdivision of the State of Washington that is independent of King County. It is an example of an SPD that provides surface water management - related services with close ties to the County.

Governed by an elected and appointed board of directors, the district is responsible for developing and promoting conservation practices intended to protect ground and surface waters, natural areas and open spaces. In rural agricultural areas, the KCD operates primarily to promote sustainable land use practices. In urban areas, it typically serves areas prone to erosion and degradation of water resources associated with poor land management.

KCD activities are financed by a special assessment authorized under RCW 89.08.400. Before a special assessment can be implemented, it must be approved by order of the Metropolitan King County Council. The district currently assesses five dollars per year on every parcel owner within the KCD service area. This assessment is scheduled to end in the year 2000. One dollar of the five is retained by the KCD for its activities. Three of the five dollars funds the regional Watershed Forums and the remaining dollar is returned to the originating jurisdiction in which it was raised.

Currently, KCD activities are coordinated with King County and other municipal surface water management service providers. King County has also provided the KCD with fiscal oversight to ensure the accomplishment of its annual work program.

Drainage Districts

Drainage Districts are authorized under RCW 85.06 to provide "surface water drainage services" within specified areas. Historically, these types of special-use districts were created in predominantly agricultural areas to drain and ditch floodplains and wetlands for cultivation purposes. Each district is governed by a board of commissioners, most of which have three members. Board members are elected by property owners from their jurisdiction.

Drainage Districts can levy tax assessments on their property owners to construct and maintain "drainage systems" and to acquire land. A "drainage system" may include ditches, drains, dams, reservoirs, spillways, pumping plants, and outlets.

In the past four years, only six King County drainage districts have levied taxes on citizens in their service areas. Their tax revenues have been used to pay for drainage and ditch maintenance services. Four of the six districts are located in the Rural Drainage and Water Quality proposed service area.

Table 5.1 below shows tax amounts levied by drainage districts within the Rural Drainage and Water Quality proposed service area for the years 1995-1999.

Table 5.1 Drainage Districts

Drainage District	1999 Levy ($)	1998 Levy ($)	1997 Levy ($)	1996 Levy ($)	1995 Levy ($)	Area Served
5	60,000	0	0	0	0	Enumclaw & unincorporated King County
6	0	0	0	15,000	20,000	Enumclaw & unincorporated King County
7	3,200	6,200	2,800	1,250	2,000	Duvall & unincorporated King County
13	8,000	14,000	13,900	13,900	8,000	Enumclaw & unincorporated King County

Source: KC Assessor's Office, 7/18/99

Drainage Districts 5,6,7, and 13 are active districts located within the Rural Drainage and Water Quality proposed service area.

Flood Control Zone Districts

FCZDs are authorized by RCW 86.15 for the purpose of "undertaking, operating or monitoring flood control projects or storm water control projects." FCZDs are formed by an action of the Metropolitan King County Council. Residents of a proposed FCZD may petition the council to form a district. The County Council members, in turn, serve as commissioners of the district.

Patterson Creek Flood Control Zone District

The Patterson Creek FCZD, founded in 1964, is the only FCZD in the Rural Drainage and Water Quality proposed service area. It serves the Patterson Creek Basin, located on the western slope of the Snoqualmie valley. The district was created in response to flooding, erosion and other surface water concerns. It has the authority to undertake comprehensive storm water plans and to construct, operate and maintain flood control management projects to protect the quality of water resources. Although the district has the authority (subject to public vote) to issue bonds for financing its activities, it has not done so in at least ten years.

To finance its current activities, board members participate on a volunteer basis and Patterson Creek is staffed and funded by King County with monies from the Countywide RIF. King County staff members from the Snoqualmie Watershed send out meeting notices, prepare the Patterson Creek FCZD newsletter and undertake stream monitoring and gauging activities at the FCZD's request.

The district has an active Citizens Advisory Board, which holds monthly meetings that are open to the public. Water quality, surface water, and natural resource impacts of new developments

are discussed. The Patterson Creek FCZD plays an active role as a "citizen watchdog" community group. Its participants routinely testify before various legislative bodies throughout the state and are quite familiar with federal, state, county, and local land-use, zoning, and sensitive area regulations and processes. The Chair of the Patterson Creek FCZD also participates in the Snoqualmie Watershed Forum as a non-voting, citizen representative.

Coordination of Service Delivery: Special Use Districts and the Rural Drainage and Water Quality Proposal

The public outreach discussions reviewed in Chapter Four indicate that some residents expressed support for service delivery and financing through existing special use districts in their area. This sentiment was particularly strong with Enumclaw residents and in Vashon-Maury Island.

Although limited in scope, local SPDs provide effective surface water management services. For example, SPD operators may excel in terms of knowledge of local conditions and historical background. Alternatively, King County has an advantage by virtue of its scientific background and the availability of staff and equipment. For example, the principal commissioner from Drainage District 13 was the recipient of King County's initial effort to help farmers implement "fish friendly" agricultural ditch BMPs.

King County's various SPDs can only provide services to their specific service areas while King County's Rural Drainage and Water Quality Proposal would provide surface water management services throughout the rural parts of unincorporated, eastern King County and Vashon-Maury Island. ESA-related regulations will most likely require the application of consistent standards for surface water management and agricultural ditch management Countywide -- if not region-wide. Because SPDs have limited service areas and varied access to hydrologic, engineering and technical expertise, a patchwork of service provision would result. In addition, consistent performance standards and new regulations would be difficult to implement and maintain.

The outcome of ESA negotiations with the National Marine Fisheries Service are expected to require increased cooperation between local municipalities, SPDs, and King County. Drainage districts may be particularly subject to increased regulations regarding ditch buffer zones and water quality standards. King County may be instrumental in helping the drainage districts meet the requirements of these regulations. The listing of chinook salmon will force aquatic resources to be managed from a larger and more comprehensive perspective.

These circumstances add to the timeliness of the Rural Drainage and Water Quality Proposal. The "fish and ditch" portions of the program, increased code compliance, ground water monitoring on Vashon-Maury Island and funding for an additional agricultural technical advisor will help all jurisdictions comply with impending regional surface water management regulations while meeting the needs of individual rural area communities.

It is crucial to stress that the Rural Drainage and Water Quality Proposal will complement existing SPDs and not replace them. Existing SPDs will continue to provide the services that they now provide. The *Rural Drainage and Water Quality Proposal* hopes to work with existing local service providers to help provide the scientific and technical support that may be lacking.

DNR's WLR Division already offers engineering, water quality sampling and analysis, hydrologic modeling, public involvement, lake management and a variety of other surface water

management- related services throughout the western third of unincorporated King County. It has experience in coordinating these services effectively with more than 30 cities, the Green River FCZD, the KCD, three lake management districts, and other SPDs within its current surface water management service area.

The relationship between DNR's WLR Division and the Green River FCZD provides an example of how King County currently coordinates with an SPD. Data collection, assessment, analysis, regulatory, programmatic and capital needs are all coordinated through cooperative technical teams. Because of this model's success, it will be used as a guide in developing service coordination in the proposed service area.

ACCOUNTABILITY: THE RURAL SURFACE WATER MANAGEMENT PROGRAM COORDINATOR

In response to citizen concerns about how revenue from the proposed service area will be used, and how the program will adapt to changing needs, the *Rural Drainage and Water Quality Proposal* includes a program coordinator to oversee its implementation. The primary function of the program coordinator will be to facilitate two-way, responsive, and cooperative relations between citizens and program staff to ensure effective service delivery and accountability.

Performance Criteria

The rural surface water management program coordinator will work with program staff and community members to develop performance criteria. Performance criteria can provide citizens, advisory groups, regulatory agencies, and WLR Division program staff with precise feedback (both quantitative and qualitative) that can be used to determine whether the program is fulfilling its purpose. An initial list of possible performance criteria could include:

- Number of drainage complaints resolved or revisited;
- Response time for drainage complaints;
- Percentage reduction of pollution loads;
- Number of annual visits to farmers, business owners, and residents in problem areas; and,
- Number of visits to problem areas by the new code compliance person(s).

Final performance criteria will be developed during implementation of this proposal in partnership with rural area citizens and community groups.

Spending Fees Where Collected

Citizens have expressed concern that this program might collect money from their neighborhoods and then funnel that money to surface water management services in other areas or for other County services. This proposal is based on the premise that, over time, surface water management services provided will be roughly equivalent to the fees collected from any given

area. The program coordinator will help identify what needs are present in each basin and work with the appropriate technical staff to develop strategies for solving each basin's needs, while taking the location of revenues collected into account.

Customized Services for Each Community

This proposal provides services that are customized for the conditions and needs of the various geographic areas it hopes to serve. As each region and basin have different needs, the services provided will be tailored appropriately. Forested areas have different needs than suburban areas, which in turn have different needs from agricultural areas. The program coordinator will meet regularly with community members to look at drainage, water quality and land use problems to assess existing program strategy and potential improvements. With that knowledge, the program coordinator will apprise program staff of specific needs.

Initially, the proposal has customized services to include: surface and ground water monitoring on Vashon-Maury Island, increased code compliance and agricultural ditch and forestry services in the Snoqualmie/Skykomish, Upper Green and White River basins. This customization occurred in response to public input received (see Chapter Four.) Additional services will be identified during implementation of this proposal and from continued communications with community members.

Public Advisory Meetings

In coordination with the rural surface water management program coordinator, program staff will also meet with citizens to discuss issues and learn from each other. Program managers and/or the basin stewards (representing the geographic areas identified above) will identify existing community groups that represent drainage issues and speak to community needs.

These groups, including Unincorporated Area Councils (where they exist) will be asked to participate in regularly scheduled public meetings occurring biannually or annually, to review the program's progress and recommend changes. Public meetings would be coordinated with local elected officials and County Council Members, SPD commissioners, board members and community leaders. Meetings would be publicly advertised to encourage strong attendance and participation.

Examples of existing community groups that may wish to serve in an advisory fashion to the Rural Drainage and Water Quality Program, if implemented, include:

- The Vashon-Maury Island Unincorporated Area Council's Natural Resources and Land Use Committee;
- The Preston Community Club;
- The Tolt Community Club;
- The Fall City Community Club;
- Commissioners from Drainage Districts 5,6,7 and 13;

- The Patterson Creek FCZD's Citizen Advisory Board.

Public meeting schedules, special community events, planned and in process large capital improvement projects, and other surface water management related activities will be posted on a Rural Drainage and Water Quality web page. The web page will also be an informal forum for comments and feedback on the program.

CONCLUDING REMARKS

King County is blessed with an abundance of beautiful rivers, lakes, streams, and wetlands as well as a vibrant and growing population and economy. The diversity of landscapes in our unincorporated lands includes growing residential and commercial developments, bountiful farms, rich forests, beautiful parks, and pristine wilderness areas. Management of the storm and surface water runoff and pollutants from these diverse areas is critical for the protection of our waterways, their fish and wildlife habitat, and for the protection of public health, property, and safety. Moreover, local, state, and federal laws require the provision of these services. The *Rural Drainage and Water Quality Proposal*, in combination with the stormwater programs in the current service area and in local incorporated municipalities, will provide the foundation upon which the region's ESA response and regional watershed protection initiatives can be built.

If the surface water management service area is not extended to the whole of unincorporated King County, the following services will either be unavailable to citizens in these parts of King County, or will be available at an ineffective level:

- Complaint response and solutions to drainage and water quality problems
- Adequate maintenance, inspection, and retrofitting of storm and water quality facilities
- Technical support for effective watershed planning and assessment
- Engineering, hydrologic, and ecological expertise to solve problems in an efficient and cost-effective manner
- Dedicated stewardship services to ensure that citizens can effectively prevent and solve runoff and water quality problems, help restore degraded aquatic habitats, and assist in the implementation of management plans
- Technical assistance for a wide range of best management practices that protect surface waters in agricultural and forest lands, including compliance with the Livestock Management Ordinance and maintenance of agricultural drainage ditches
- Surface and ground water monitoring to identify emerging problems, understand the relative success of the management activities, and adapt management strategies to meet changing conditions
- Compliance with local, state and federal laws including the Clean Water Act and the Endangered Species Act.

The *Rural Drainage and Water Quality Proposal* gives King County the opportunity to ensure effective management and solution to existing storm and surface water problems now and prevent new problems into the next millenium.

King County Executive

Rural Drainage and Water Quality Proposal

APPENDICES

October 1999

ACKNOWLEDGEMENTS

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Ron Sims

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APPENDIX A

CITIZEN FEEDBACK

This appendix contains the actual text of comments received and a synthesis of completed questionnaires returned during the Rural Drainage and Water Quality Proposal outreach process.

Comments

Comments from Vashon-Maury Island residents have been separated. This was done to acknowledge the island's unique ground water and surface water concerns related to its designation as a sole-source aquifer. Ground water management and its relationship to surface water, in terms of water quality and supply, are of paramount importance to Vashon-Maury Island residents. These concerns were unique to Vashon-Maury Island residents and not mentioned by any other rural area community group.

Service Needs - General

▪ Cumulative effects cause problems.
▪ This really isn't a rural area anymore. There are urban densities out here.
▪ Your program should be geared more toward saving natural resources vs. paying to retrofit existing facilities thereby subsidizing developers and new developments. We don't want this to be used to allow inappropriate development.
▪ In '85, the State, KC and the federal government was going to jointly fund a basin plan. KC wouldn't contribute funds, because they thought there would never be enough development out here to warrant it. It would be nice to have that basin plan now.
▪ Provide technical assistance (design and permits) to help people build their own retention / detention ponds.
▪ Retrofits of existing drainage ponds and pipes are needed.
▪ Maintenance of facilities is close to negligible.
▪ Can there be a customization of services to this area in the proposal?
▪ DOE/EPA has zero tolerance policy with farmers. ▪ I think most farmers want to feel that they're in compliance.
▪ Are drainage facilities adequately inspected before being turned over to the County?

Service Needs - Specific Problems

- Older Shadow Ridge/Lake Desire development. Property owners there have had to deal with drainage problems themselves.
- Elevated flows on Rock Creek appear to be the result of a relatively new development in that area.

- Concerned about new Polygon development in their area. What detention standards area they under?

- We do have a problem with slides into the Raging River and the Snoqualmie River. The Preston - Fall City Rd. is sliding into the river and its not an urban development problem, it's a storm drainage problem. This problem isn't anyone's fault, it just exists.

Service Needs - Vashon Island

- In the winter, we (Vashon) get sheet flooding. Retention / detention ponds would be an appropriate solution for this problem. The west side of the island is wetter and there are 5-7 permanent streams there.

- Vashon is the bastard stepchild of King County. Nobody comes out here to check on things. People create these little farms and put llamas next to streams and next to the shoreline.

- One of the reasons we have three State declared public health hazard areas on Vashon is because the soil is really wet all the time and there is no place for sewage field here. Everyone with a drainage field has a problem in complying with health regulations.

- A problem we have on the (Vashon) island is manmade ponds. People fill them with water and they overflow when it rains.

- We lost 150 feet of waterfront (on tip of Maury Island) due to excess runoff and / or excess groundwater.

- On-site mechanisms to convey surface water from residences located on the perimeter of the island should be looked at. Enforcement of design standards and making sure the stormwater facilities are built to spec is important.

- We (Vashon) also need technical assistance for flooding/landslide issues. We have lots of neighbor to neighbor water diversions that cause landslides.
- I disagree. We don't have flooding problems on Vashon

- There are definitely problems on Vashon. Residents aren't aware of the seriousness of them until the problems become huge and it’s too late.

Priority Services

- The three most important elements of a service proposal should be: Monitoring, inspection and enforcement. Should be performed by an independent body.

- Enforcement.
- Improve response time.
- Don't mess with things that are already working.
- We don't want the money collected going downtown; we want local control.

- Foresters: Technical assistance and forestry classes (currently CX funded).

- Characterize development: Single houses? Regional retention / detention ponds could be a possible solution.

- Monitoring is crucial, especially to establish a baseline of data. With that, you can establish individual responsibility for a problem.

Vashon Island - Priority Services

- The number one service we want: Stewardship and monitoring. On Vashon, we have a head start on some watershed work. Volunteer monitoring - we'd like to see that expanded island-wide and also get some financial assistance to help with stream restoration.

- Basin steward: Just for Vashon.
- Surface and ground water connected.

Enforcement

- There are many clear-cutting abuses, such as clearing illegally with a (State) DNR granted permit, without a King County permit and illegal clearing in sensitive areas.

- The number one issue is enforcement. KC needs to work with the community as a partner and not as a dictator.

- It's very frustrating when permits are approved for rampant development. Development is the problem and no one is enforcing the regulations. There is zero enforcement.

- Construction is still going on at Mitchell Hill. Aren't they contributing to the problem? Current law states that you cannot add to an existing problem through construction.

- Illegal fill activity next to my property has blocked up the creek. I would like to see better enforcement by the County of existing regulations.
- If engineers come out and recommend that we do something, will that recommendation turn into a requirement?
- Permit review: DDES has a problem with grading. Slides on Vashon occur from underground water, not surface water. Forestry cutting violations have occurred, creating more slide damage. Seems that there are already laws and regulations in place to cover what you are talking about.
- We (Drainage District # 5) tax about 2/3 of the City of Enumclaw. The rest of the town just runs their storm water off into the surrounding creeks.
- The Town of Skykomish, pop. 250, has written a drainage plan, but has no money to implement it.
- The main problem in this area with storm water facilities is inside the city of Enumclaw. Facilities are inadequate.
- Coordination with suburban cities is essential, to ensure their developments are up to standard.

Problems with King County Permitting & Code Enforcement Process

- Thirty percent of the problem is that current regulations are inadequate, and sixty percent is that DDES is helping its buddies get by.
- Code enforcement is never consistent. The little guy ends up getting in trouble, while the big guy who's causing all the problems gets permits left and right. The little guy should not be penalized, especially when he's trying to do the right thing, like restore a creek - don't make him wait three months to get a permit. Maybe a Basin Steward could help in these situations.
- Consider using overlay for agricultural areas to allow for modifications in implementation of SAO regulations (e.g., fish and ditch).
- An objective body should review development permits. The process should be separated from the politics and the lawyers. Independent drainage review would be the number one service we'd like.
- WLRD is trying to protect us, but the other arm (DDES) is trying to screw us.
- The process is incompetent (especially DDES), and will remain so unless there is the political will to streamline the permitting or review process.

- King County regulations require black-tops. Why is the county encouraging more pavement?
- Go beyond enforcement and look at what is being permitted.
- How about a permitting process where people bypass the County and go to the State for a permit.
- King County issues inappropriate and too many permits.
- Why is King County permitting in the rural areas? You (King County) can't control the regulatory environment. Are you just creating a program to address a problem you haven't been able to control?

Accountability - Developers

- There's a hole in the building inspectors' system. They don't inspect for drainage plans after they are implemented to see if they work.
- Building inspectors do not look to see if drainage mitigations were implemented. The rules are there, but implementation and enforcement is not. The problem is that building inspectors don't do environmental inspections. DDES was woefully short of inspectors. Inadequate inspection is the number one problem. SAO inspection is important.
- Responsibility for repair should fall on those who caused problem. County should be arbiter of that process. Bonds are inadequate - they're usually paid off by the time problems start to show up.
- Force development/homeowners associations to retain responsibility for maintenance of R/D ponds.
- Developers would rather default on the bond than fix a problem. Perhaps the answer is to dramatically increase the bond.
- Why are stormwater facilities reverted to the county for taxpayers to pay for? Keep the costs for maintaining facilities tied to the initial development. Facilities are not as mutually beneficial to society as roads are. I don't use developments if I don't live there.
- Fear exists that program is just setting rural area up to pay for developers' mistakes or negligence.
- KC should get act together w/in SWM area before bringing it out to rural area, instead of sticking everyone with fee for CIP's to fix mistakes of developers.
- The burden of proof should be on the developer to prove that they won't cause downstream damage.

Planning

- If we do planning, we must include identification of key resources and the means to protect them (don't think we've done this in the past.) Planning must also include baseline monitoring and research type basin assessments.
- Regional planning by watershed is valuable. This program would support that effort.
- (Drainage) problems need to be clearly identified. Flooding problems on the Vague property have been going on for years. Don't know if anything can be done about those big flooding problems anyway.
- Where does surface water start being river water? What is the definition of services between the two?
- Too much time and money is spent on planning. How about limiting a specific amount of money raised for planning? For example, restricting it to 10%?
- Existing basin plans don't work and having a formal plan implies that we have issues under control. Although, I would support some typical plan elements such as down zoning if, it can be done outside the formal planning process.
- Your division (WLRD) should be able to enter into the permitting process and prohibit a permit.
- Roads maintenance procedures are causing problems. Roads should be required to submit a permit application and be subjected to input or review.
- (Vashon) We probably don't know where our ditches flow. We also don't know about the water quality in them.

Vashon Island - Groundwater

- Vashon doesn't need other surface water management services -- we need groundwater management.
- Surface water management does dovetail with groundwater quality. Surface water is an indicator of groundwater quality.
- We need surface water stream gauging. Monitoring of streams is important.
- Look at all that surface water monitoring stuff in the groundwater plan and fund it.
- We need to gather more information about fish and water. The focus should be on retaining water and erosion.
- Groundwater recharge is a major need. How many infiltration facilities actually work?
- An integrated groundwater and stormwater program makes sense on Vashon. Where do you see opportunities for these two elements to mesh in this program?

- We, water purveyors, have problems keeping up with our loads and we have nitrate problems (from negligent agricultural practices.) Sheet runoff hits roads and then goes into natural drainage systems. Those natural systems are overloaded because of increased development. They are flooding and running down valleys and the valleys are becoming more erosive. Obviously, scouring out streams and creeks changes the habitat that can live there.

- If you look carefully at Vashon's water sources, approximately 70% of the water comes from less than 20% deep. Think about how this program might impact water supply for water purveyors if you start mucking around with our system.

- Groundwater management plan - needs to identify Haz-Mat areas.

- What we need is retention of clean water to recharge aquifers, not control erosion of sides of island.

- We need to know if our water is potable. We need well monitoring & mechanisms to tell us if our water is clean.

- The merger between surface water & groundwater was always fought for but never achieved during the groundwater planning process. There are holes in the data that's been collected for the groundwater plan in regards to surface water. That data collection was wrong & worthless in the groundwater plan. It was done by the Department of Health and they don't have the experience necessary to get good data.

- Groundwater is coming out of the sides of hills. Clearly, folks are drinking surface water or "groundwater under the influence."

- Groundwater plan focuses on groundwater. We don't drink groundwater, we drink surface water.

Rates - Costs

- Ignorance is fear. Especially in the farming industry. Exactly how much would the SWM fee cost per acre, per parcel?

- The thing that's most important to businesses is how much we'll be charged.

- Regarding the classification of farms - will farms be charged the residential rate or the commercial? (Take into consideration the winter paddocks, barn roofs, and gravel driveways.)

- Need a clearer delineation and definition of impervious surface categories.

Rates - Equity

- When you look at the current (service) boundary, developments on the other side of the boundary are causing our problems and you're asking us to pay to solve them.

- Small commercial parcels may pay less than and have equal or greater impact than some residential parcels.

- Concern over fairness of rate structure. Interested in detail of Senior and other exemptions.

Rates - Incentives

- We would fight this "tooth and nail" since we're providing cover and drainage for our neighbors and they'll be paying the same, flat residential rate. Residential parcels should get charged their actual impervious surface. There needs to be some kind of incentive for homeowners that are "living light on the land" and are keeping their lands covered with natural vegetation -- not lawns. We provide drainage and are doing the right thing for the neighborhood. No equity if new development is charged same fee and not providing any drainage. We all have to deal with runoff from clear-cuts.

- We've seen stream degradation from clearing for pasture land. Also, clear-cutting has caused runoff. Is there a fair way to reward people who avoid that kind of activity? Incentives in terms of graduated fee perhaps.

- You should allow credits or exemptions for cisterns used to collect water for irrigation. Have King County provide or help finance cisterns. Residents could pay back for their cost, but get credit from the fee for their use. That way, residents can still water lawns -- even during water shortages.

- Property owners should be rewarded for doing the right thing with the land. For example, we've probably spent hundreds of thousands of dollars to improve water quality on our farms when hobby farmers next door have horses that stand around on a bed of concrete -- practically. They've done nothing for water quality and have let their land deteriorate. Why should I pay the same amount as they do? Incentives for good land stewardship practices that result in creating a benefit for the neighborhood and lands that serve as receptacles for surface water should be created.

- People "solve" their drainage problems by sending their water to their neighbor down the hill. Has there been any talk of "individual" catch basins - treating storm water individually?

- Look at creative solutions - innovative approaches to allowing people to deal with water on-site without exorbitant permitting fees.

Rates - Clear-cutting & Forestry

- How much are residents going to be charged to pick up the tab for foresters?

- The difference between cut forest and standing forest is far less significant than the difference between cut forest and other cleared lands because forest best management practices require better drainage management and wider buffers.

▪ How will logging roads be dealt with? Will a fee be assessed on them? How do we deal with that situation inside the current service area?
▪ Residents believe forest service land causes drainage problems in town.
▪ There are major issues with forest practices. We should charge foresters, just as we would any other user.
▪ The State's granting of forestry permits is a problem. Are you still taking a back seat to their authority? There has been huge logging above our watershed. Fifteen acres was recently clear-cut. That has big effects on the folks that live below.
▪ Logging & forestry plays a huge role in flooding & drainage problems.
▪ The timber industry has to be a player at the table. Rural residents are being asked to pay for their clear-cuts.

Rates - Benefits of Forest as Land Cover

(These comments came primarily from a meeting with the Executive Committee of King County's Rural Forest Commission.)

▪ A large forested residential parcel would pay the same as an all-paved residential parcel even though it could be argued that the forested parcel is actually creating a (drainage) benefit.
▪ The way the rate model works now, a developed parcel may drain to adjacent forest parcels, reaping the benefit of "free" stormwater disposal and potentially impacting the forested parcel's property value.
▪ If we get the 10 -20 acre forestry, clear-cutting issues under control, it would make a big difference.
▪ Forest owners should be encouraged to keep lands forested, possibly with cash payments (not just discounts) for their value to aquifer recharge and related benefits.

Rates - Alternatives

▪ Attach a fee to different types of development instead of per residence.
▪ The impervious rate model makes sense in the urban area, but not in the rural.
▪ Short platted developments should pay more. Development should pay for development.

- A rate structure based on different types of land uses/surfaces gets people thinking about how they use they land.
- Farmers / dairies are struggling. They shouldn't pay as much as other commercial establishments. APD's need a special fee model.
- Regarding the use of an alternative rate base: If it gets too expensive for landowners, they'll be encouraged to sell out to developers, which increases impervious surface.
- If you use an alternative rate base that takes contribution to the problem into account, you'd have to also take into account different types of soil composition.
- How about customization of rates?
- I worked for the City of Seattle - it's so expensive to implement complex rate structures. Personally, I don't want to see the money spent on that.

Publicity & Message

- Regardless of who's to blame, the problems won't go away by themselves. When trying to sell this proposal, emphasize how King County wants to help rural area residents.
- Emphasize that the County wants to SOLVE Problems, NOT enforce regulations.
- The rural area surface water management program should be very different here than in the existing, urban service area. If it isn't it'll signal developers that the County is providing the infrastructure and a utility service to extend the Urban Growth Area. If the rural program isn't different from the urban one, it might give people the impression that more growth can be accepted.
- This (July) is the Chamber's down-time. Come back in September or October to talk to the whole Chamber. It's important to get the message to business owners because of the fee they're going to have to pay.
- DO NOT hold public meetings at the Snoqualmie Middle School. Try the North Bend Depot or the North Bend Senior Center or the Elementary School.
- Make it clear that local services won't solve large flooding problems.
- Council meetings are the primary venue for the (town of) Skykomish.
- Explain why existing facilities don't work and what this proposal would do about it.
- Farmers are expected more and more to store everyone's stormwater. Why are we calling it the "drainage proposal?" Shouldn't we be calling it the "retention/detention" proposal instead?

- To get local support, illustrate the success of the existing surface water management program. What has the existing program done for the White / Green River drainage?
- Be cautious when discussing "planning and reconnaissance."

Accountability

- How about an oversight commission for accountability?
- If you guys come in to take over, will you be able to keep the ditches clean? Will you have to get permits?
- People are very suspicious of big city influences in the rural area. There's this impression out there that government is taking but not giving back enough.
- If this is approved, I would suggest an advisory council for Vashon.
- Think you'll get our support but it'll be tough. We need to make sure KC is accountable and that we get the services we need.
- Break out expense percentages by community to demonstrate where/how SWM spends its money.
- Severability clauses are used routinely and do exist in many ordinances transmitted. It would allow us an out if we chose to pursue an aquifer protection district. (Vashon)
- Very few people would resist a tax increase, IF THEY SAW RESULTS.
- How do we ensure that we get services that our fee dollars pay for? How do we ensure that our money doesn't go toward drainage services in Seattle for example?
- Is there a plan for "districting," so that money raised in Fall City won't go to pay for projects on Vashon Island?
- How will the money be portioned out? I'm afraid a large percentage will go to CIPs, a large percentage to fixing developers' mistakes, and only a small bit to actually solving people's drainage problems.
- Looking at the map of complaints and facilities, there's no guarantee that our $85 / year would come back to us.
- How much money would be generated here?
- Want assurance that money would be spent locally.
- To get local support, we'd have to know the percentage of money spent in the area.

Use of Funds

- This is double taxation. The County made a contract, when they built the dikes, to protect life and property. Now, they don't seem willing to budget (CX funds) for protection of life and property. I wish they'd just asked for a tax increase, instead of trying to create a new tax.
- Can't we just educate people to live with wet yards?
- I'm concerned that the money generated for this proposal would be used mostly to solve problems caused by the county, specifically allowing people to build where they shouldn't and to construct inadequate retention /detention facilities. Called out problem on 278th? In (near?) Snoqualmie where Road over-topping became a regular problem after a small development built to 1990 (SWM Manual) standards was constructed.
- The process in the existing area is slow and political. Why are we creating more of this?
- Are you just expanding the SWM area to cover your budget? Is our money going into a sinkhole?
- Why should we pay for nothing?
- Stay out! We don't want you here!!!
- If funding for current activity in the rural area comes out of the general fund (CX), which is collected through property taxes, how can there be a lack of funding? There's been a huge increase, in recent years, in assessed property values - therefore the tax base is larger.
- As small property owners, we should be responsible for our own services. Perhaps rural owners are used to paying for their own drainage problems. Our money should go toward regional projects.

Local Control

- Involve KCD in the assessment process. Some of them have been working in the rural area a long time and have better ideas concerning practical solutions than new people with new ideas.
- Use KCD model of enforcement - it's non-regulatory.
- A functional group already exists with the King Conservation District (KCD). It just seems that you want to add another layer of administrative costs. What about funding the KCD through SWM fees?

- Won't this just be a duplication of services over what the KCD already provides? There needs to be a place where people can go when they have a problem, w/out having to worry about being turned in for enforcement.

- How would we interact with water purveyors, with respect to surface water? (Surface water as water supply) Interjects another bureaucratic entity into a situation that's already fairly messy.

Drainage Performance

- Concern over past failures of KC to control storm water. The addition of ditches on Mt Si Road actually created problems where before, there were none.

- Concern over accuracy of calculations used to assess and solve drainage problems.

- Concern about inadequacy of both current and past detention standards.

- Sand filters are fundamentally flawed. It's not a matter of inadequate maintenance.

- SWM manual makes no sense. Your own people will admit that conveyance pipes worsen the problem.

QUESTIONNAIRE SYNTHESIS

The matrix that follows synthesizes the 70 questionnaires that were returned during the Rural Drainage and Water Quality Proposal outreach process. This outreach effort was not designed to produce quantifiable results despite the fact that the public input has been synthesized here in a formal way. The results presented here are not intended to be statistically valid.

Question1 *What do you feel is the most important reason that surface water management services should be provided in the rural areas of King County? Please rank the following reasons from one (1) to four (4) in order of importance, one being the most important and four the least important.*				
1a) To reduce drainage problems for homeowners and businesses.	*1b) To prevent damage to natural drainage systems (creeks, rivers and lakes).*	*1c) To help farmers and rural landowners protect rural lands and aquatic resources.*	*1d) To provide a basic level of services that will lay a foundation for the tri-county salmon-recovery effort.*	Misc / Other
13 - Very Important 10 - Important 8 - Somewhat Important 35 - Not Important	36 - Very Important 16 - Important 10 - Somewhat Important 4 - Not Important	16 - Very Important 24 - Important 17 - Somewhat Important 8 - Not Important	2 - Very Important 16 - Important 25 - Somewhat Important 21 - Not Important	*KC stay out of rural areas. / Enforcement!*

Question 2 *How important are the following Rural Drainage Proposal components to the rural area? Please rate the importance of each component on a scale of one (1) to four (4), by circling your answer.*						
2a) Identification of drainage problems (e.g., standing water, flooding, erosion or creek washouts.)	*2b) Implementation of solutions to drainage problems.*	*2c) Maintenance and retrofit of County-owned stormwater facilities and inspection of commercially-owned facilities (retention/detention ponds, bioswales and ditches.)*	*2d) Education and community outreach.*	*2e) Stewardship and management of rural KC lakes.*	*2f) Helping farmers, livestock owners and small forest landowners implement "Best Management Practices" designed to preserve rural landscapes and way of life.*	*2g) Additional DDES inspectors to increase enforcement of drainage and environmental regulations.***

32 - Very Important 18 - Important 13 - Somewhat Important 4 - Not Important 1- Don't Know	31 - Very Important 22 - Important 11 - Somewhat Important 4 - Not Important 2 - Don't Know	21 - Very Important 25 - Important 14 - Somewhat Important 9 - Not Important 2 - Don't Know	31 - Very Important 16 - Important 15 - Somewhat Important 8 - Not Important 1 - Don't Know	24 - Very Important 23 - Important 13 - Somewhat Important 8 - Not Important 1 - Don't Know	30 - Very Important 22 - Important 11 - Somewhat Important 7 - Not Important 2 - Don't Know	25 - Very Important 15 - Important 4 - Somewhat Important 13 - Not Important 1 - Don't Know *** 12 respondents were not asked this question in the first edition of questionnaire.*

Question 3 *When presenting this program to residents of rural King County, is it important to differentiate between this program and the existing surface water management program provided in urban King County? If so, why? (Open ended)*				
YES	NO	Don't Know	Miscellaneous	Left Blank
34 - Yes. *Only in terms of taxation & funding./ Because rural KC is different than urban . Totally different places. / So we can better evaluate the benefits. / If they are different, yes! If they are the same, no! / Of course. You don't seem to be at all knowledgeable about Vashon water issues & what's already in place here. / Citizens need to know who is responsible for what. Right now, its confusing. / Landowners need to understand what will be different than present program. / Different problems / Obviously the density of development is significantly different ...hence the program developed will be different. / Explain differences because rural deals with less concrete. / Very confusing as is. / I had no idea there was a difference. / ESA emphasis is critical. / Eliminate confusion and gain support. / Very different services are needed. / So we will understand improvement if there's to be any. / There are so many county programs that the general public is unaware of. Its such a maze already. Yes, I*	4 - NO *Problems are common. Funding plan needs firming up. / Earlier contracts with people were renegged by County. Now choose NOT to budget the basic protection. Solution SWM, double taxation. / Old program is better left in place and under funded. So called experts...just aren't. Packing too many homes together is the problem.*	*5 - Don't Know (have no opinion or not enough knowledge about current SWM.)*	4 - *SWM is an obscure program with little know effect. I would not want to be associated with it. / Marginary. / As a person who lives in Seattle, I hope we as a county can continue to keep rural parts green and safe. / Get out completely. Get rid of both & save more tax payers money. / SWM should be providing solutions to drainage problems now.*	21

Question 4 *How much do you value your local lakes? What do you use them for (e.g., swimming, boating, fishing, birdwater, picknicking, etc.)?*					
Yes, for habitat / wildlife viewing	Yes, for water quality	Yes, for recreation	Yes (no further comment)	Don't Use them or don't have any local lakes	Recommendation / Direction

8 - *Looking at. / Wildlife. Just the pleasure of looking at them and knowing that they are healthy. / Value highly for bird watchin and viewing other wildlife (I.e. otters.) / Just the pleasure of seeing them and knowing that they're there for wildlife. / Natural habitat very valuable. / We have a few ponds that are valued wildlife habitats. / Very important for no other reason than they are there. / We must protect our environment.*	*3 - We are surrounded by Puget Sound. All water activities would be affected. / Direct impact on drinking water. / Clean water.*	*23 - Very important sight seeing. / Value lakes highly in their natural state. All rec. activities. / Preservation is essential. My uses are swimming and boating. / Important to keep them clean. / Swimming, picknicking & fishing. / Value them lots. Rec. activities. / Somewhat less important then our streams & rivers. / I use them for all of the above plus just the beauty of looking at them and being able to be proud that we live in such a beautiful state with some of the most prettiest lakes. / I love that we have a bunch of small lakes in the area. I use them primarily to walk by. Occassionaly to swim in. / I value the lakes although I don't use them much except for occassional fishing. / Fishing. / Viewing & swimming. / Ice skating in the winter. / I love my local lakes. We use them for all of the above. /*	11	*10 - Don't use them. Lake Samm. Maybe 2X per year. / We only have one or two small ponds. / Don't have local lakes. / No lakes. Total value is all shorline and spring fed creeks.*	*You're going to tell us what we can do with our land so city people can have some place to go on a picnic. / Need more and better access to lakes. Get young folks fishing which is good clean recreation. / Enforce rules - hate to go to a lake and have to clean up. / Huh? Lake Marcel, Joy and Ames all are developed with local homes all around. / Local lakes have become too crowded to enjoy. I go east. / Keep KC and developer out of lakes. / Value them highly but lakes already have a concerned constituency of landowners with a vested interest to protect the lakes. This program needs to focus on streams. / The less DNR & county involvement the better.*

Question 5 *Are you aware of specific problems in your area that not currently being addressed but, could be addressed by a surface water management program?*						
Yes - Erosion / Development / Land Use / Roads or Hwy's.	Yes - Water Quality / Livestock Ordinance	Yes - Agricultural Ditches	Yes - Aquifer Protection	Misc. or Confusing	NO	Left blank

18 - Storm surge erosion in local streams. The rapid runoff from roads and developed sites impacts spawning fish in local streams./ Developments should minimize impervious surfaces. / Fill in floodplane and flood way. / Forestry practices in the upper portions of watersheds. Remlinger's filling in Indian Creek (ongoing problem.) / Localized flooding. / Some serious erosion problems. / I live on a river and watch my yard be taken down little by little each year. One day my house will be right on the river unless someone does some managing or lets me do it. / Clear cutting and development on steep, erodible slopes. / Exit 31 (S of interstate) heavy commercial development proposed. / State Hwy. 410 was constructed above grade. Land adjoining 410 is left to deal with runoff. Assistance is needed. / Enforce existing building laws that exist. / Flooding by the Snoqualmie River and Patterson Creek and the impacts ofn all the development (both future and already built.) / Yes, erosion on Shingle Mill Creek & Jud	*6 - No stormwater regulations in City of Carnation. / Lack of storm drainage in incorporated Carnation. / Only water quality issues that enforcement of the livestock ordinance would deal with. / Livestock. / Watershed stewardship, public education, monitoring and water quality and quantity. / Water contamination from Tom Stewart's cattle ranch. It is the biggest single problem, but he's too politcally powerful for your county department to touch. He passes the County and goes directly to Olympia where I hear he got permission to clear cut and develop a golf course ringed by houses. We already have one course. We are well educated - more than the average. We need policing.*	*5 - Neighbors spraying (herbicides) in ditch areas that have fish in them. / Difficulty in farmers clearing ditches. I'm not concerned about casual users (such as horse lots) but about legitimate commercial farms. / Roadside ditches are choked with grass & brush. Does KC have a ditch cleaning crew? / Farmers ditch problems and permits costs. / Enforcement and requiring people to clean ditches and not to fill them in.*	*3 - Aquifer protection. / Sole source aquifer issues. / Underground aquifers.*	*8 - How much water do we have to manage? / Surface water is not the issue here. / If people are stupid enough to buy or build where it floods every year or every two or three years I think they shouldn't be "rescued." They should relocate. Please keep gov't drainage out of animal issues not duplicate work by different agencies. / Yes, surface water management was and should be part of the budget. / I know there are problems and I worry when the govn't gets involved. / Get rid of free loaders such as 9 members of KC Council and go back to 3 man council. / Disregard for 5 acre minimum lot sizes and fickle politicians who alter zoning laws for money from developers. / Better enforcement of current laws.*	16	*13*

Question 6

Please list any community groups or public opinion leaders with whom you feel we should meet.

Community Groups

Preserve our Islands: (206) 463-7296; City of Carnation; Paul Carkeek (425) 222-5662; Neighborhood associations; Land owners who are involved; Tolt Community Club; Trout Unlimited; Vashon Maury Island Community Council; (Vashon) Land Use Committee; Vashon Maury Island Land Trust; Farmers; Use the ferry system; Seniors who live in Fall City most of their lives and know its history & change patterns.; Local press; King Conservation District should be involved; Chamber of Commerce; League of Women Voters; Water purveyors & local water district; Enumclaw Chamber of Commerce; City of North Bend Council Members; Vashon Island Growers Assoc.; Emma Amid & Vashon Park District; VIGA; Derdowski & "Cedar" County Officials & Proponents; All School Boards in the County would be helpful.;

Question 7 *Do you feel that citizens in your area will be willing to pay for these basic drainage services?*			
YES	NO	?	Blank
41 - yes *Amount should relate to size of property.; If add aquifer protection to pkg!; Want to see more accountability; Only if there's enforcement.; Only if forest production is also responsible.; Only if loop holes developers find are plugged; Don't underfund!; Presently we pay high taxes without receiving services.; Only if directly controls our area.;*	*22- no* *Unless groundwater protected; I would but don't think public will.; Must be directly proportional to value received.; Could be substantial resistance to another fee if significant; Tax up front - not double taxation. What will be double taxed next? Need more info. What is needed in budget? How much does that make taxes?; I want to know what gov'nt will do; SWM in 1970 had on hand two people. KC created one of the biggest tx in KC*	*4 - Maybe* *It will be a tough sell. Depends on what services will be provided. Actual projects v lots of overhead and empire building.; How you assess is critical.; Depends on how you sell the program.*	3

Question 8 How much do you think they will be willing to pay annually? (Please check one)					
$0-30	$31-60	$61-90	$91-120	Comments	Blank
10	11	9	7	*You don't have money for what you are already responsible for. You don't maintain what is already in place. / It depends on how you sell the program. ; Zero. In fact, I'll contribute to any group willing to fight you! Have a nice day!*	4

APPENDIX B

Chapter 3 describes a method for calculating an average impervious area that most accurately represents the residential contribution to stormwater runoff. The method relies on the concept of "effective impervious area" (Alley and Veenhuis, 1983), and has been subsequently incorporated into King County's own hydrologic modeling in order to most accurately predict stormwater runoff. This appendix shows the complete calculation for the adjusted average residential impervious area.

The calculation is based on two equations describing the relationship between "effective" and "total" impervious area for commercial and residential development. They are

$$EIA_{commercial} = 0.94\ TIA$$

$$EIA_{residential} = 0.15\ TIA^{1.41}$$

where both EIA and TIA are expressed as percentages of the total surface area under consideration. (Note that the article reports percentages as whole numbers, so EIA and TIA are actually percentages multiplied by 100.)

Field surveyors measured the impervious area for a sample of residential parcels in both the proposed and existing service areas, and this data is reported on the following pages.

The adjusted residential average impervious acreage was calculated WITH the following steps.

Step 1: Calculate the effective impervious area for each residential parcel.

For each parcel in the samples, the residential effective impervious area was calculated using the following equation, based on the residential equation above:

$$EIA_{residential} = 0.15\ TIA^{1.41}$$

Since EIA and TIA are actually percentages of total area, the equation can be rewritten as

$$\text{Eff Impv Acres} \div \text{Total Acres} = 0.15 \times (\text{Impv Acres} \div \text{Total Acres})^{1.41}$$

Also recall that the authors expressed the percentages as whole number (e.g. 12% = 12 ≠ .12), and incorporating this into the equation reveals

$$100 \times \text{Eff Impv Acres} \div \text{Total Acres} = 0.15 \times (100 \times \text{Impv Acres} \div \text{Total Acres})^{1.41}$$

Solving for Effective impervious area results in

$$\text{Eff Impv Acres} = 0.0015 \times \text{Total Acres} \times (100 \times \text{Impv Acres} \div \text{Total Acres})^{1.41}$$

This equation was then used to calculate the effective impervious area for each parcel, shown in the right-hand column of the data tables in the succeeding pages.

Step 2: Calculate the mean effective impervious area for each sample.

The average effective impervious area was calculated by taking the mean of the effective impervious acreage columns for each sample yields the following results. The mean total impervious area is also reported for comparison.

	Mean Total Impervious Acres	**Mean Effective Impervious Acres**
Proposed Service Area	0.151	0.060
Existing Service Area	0.104	0.060

Step 3: Adjust the residential average to account for commercial EIA.

This final step is done to preserve the appropriate balance between the residential and commercial sectors, so as not to favor the one at the expense of the other. The adjustment is made by dividing the Mean Effective Impervious Area by 0.94, taken from the equation

$$EIA/TIA_{commercial} = 0.94$$

derived from the equation above. The result is then rounded to two decimal places, consistent with the level of accuracy of the field measurements.

	Mean Residential Effective Impervious Acres	**Adjusted Mean Residential Effective Impervious Acres**
Proposed Service Area	0.060	0.06
Existing Service Area	0.060	0.06

RESIDENTIAL SAMPLE: PROPOSED SERVICE AREA

Summary

	Mean	Std Dev	Sample	Population
Total Impervious Acres	0.15	0.12	108	19,933
Effective Impervious Acres	0.06	0.05	108	19,933

	Parcel Number	Total Acres	Total Impervious Acres	Effective Impervious Acres
1	3249500160	0.88	0.15	0.07
2	3626079028	4.93	0.23	0.06
3	4046710410	0.26	0.07	0.04
4	2626079068	1.20	0.09	0.03
5	1626079151	1.73	0.27	0.12
6	1550000230	10.01	0.12	0.02
7	2129700040	3.87	0.08	0.02
8	2129700608	3.57	0.29	0.10
9	3226079048	5.02	0.29	0.09
10	826079067	18.66	0.39	0.08
11	7349800410	0.26	0.12	0.09
12	1126109028	1.17	0.08	0.03
13	205000440	0.76	0.11	0.05
14	1725079052	5.07	0.14	0.03
15	3025079081	1.00	0.18	0.09
16	3025079151	0.91	0.10	0.04
17	3025079061	4.70	0.26	0.08
18	425079066	5.00	0.20	0.05
19	203101532	2.15	0.19	0.07
20	203101523	1.20	0.15	0.06
21	1125079098	2.47	0.33	0.14
22	7325600150	0.29	0.08	0.05
23	8691320040	0.29	0.10	0.06
24	1224069069	4.90	0.34	0.11
25	8731710040	1.12	0.21	0.10
26	8731710100	0.23	0.08	0.05
27	1324079036	0.41	0.06	0.03
28	2324079068	1.27	0.05	0.01
29	2475900655	0.48	0.15	0.09
30	1724079039	1.57	0.13	0.05
31	1324079077	5.35	0.31	0.10
32	1324079045	2.00	0.12	0.04
33	3924500070	0.89	0.25	0.15
34	7802900224	1.48	0.18	0.08
35	9423800045	0.18	0.03	0.02
36	2424410110	0.62	0.09	0.04
37	2824089040	2.77	0.18	0.06
38	2024089095	4.97	0.27	0.08

	Parcel Number	Total Acres	Total Impervious Acres	Effective Impervious Acres
39	2024089079	5.05	0.19	0.05
40	3424089087	13.26	0.25	0.05
41	5702500350	1.85	0.09	0.03
42	2423029098	6.12	0.12	0.02
43	1823039043	0.57	0.07	0.03
44	6683100110	0.2	0.11	0.09
45	7334501050	0.26	0.15	0.12
46	7334700070	0.23	0.06	0.04
47	9407110620	0.34	0.05	0.02
48	9407100630	0.26	0.04	0.02
49	9407000730	0.20	0.07	0.04
50	9407102600	0.25	0.06	0.03
51	1223089087	1.37	0.13	0.05
52	9510300220	0.81	0.09	0.04
53	2623089065	2.00	0.10	0.03
54	2523089055	2.75	0.14	0.04
55	1523089101	0.52	0.15	0.09
56	1623089095	0.46	0.10	0.05
57	1623089046	0.45	0.08	0.04
58	323089114	2.60	0.18	0.06
59	1151100055	1.15	0.14	0.06
60	7334400890	0.24	0.08	0.05
61	7334401470	0.30	0.12	0.08
62	7334400500	0.45	0.10	0.05
63	1823099023	11.42	0.45	0.12
64	723099031	0.81	0.17	0.09
65	2622029075	0.48	0.02	0.01
66	2322029081	4.77	0.13	0.03
67	7004200150	0.49	0.19	0.12
68	7558800330	0.76	0.10	0.04
69	1722039036	0.42	0.07	0.03
70	792500140	5.77	0.11	0.02
71	1822039234	1.07	0.12	0.05
72	1622039078	0.57	0.19	0.12
73	1822039166	0.15	0.03	0.01
74	1535200245	0.13	0.05	0.04
75	1922039068	0.32	0.09	0.05
76	2022039017	0.42	0.17	0.11
77	2122039103	0.53	0.14	0.08
78	2051200100	0.26	0.06	0.04
79	3022039075	0.65	0.07	0.03
80	622039064	9.00	0.08	0.01
81	2422079029	0.86	0.06	0.02
82	2622079106	0.19	0.07	0.04
83	221029047	0.31	0.04	0.02
84	2891400110	1.57	0.18	0.07
85	2621069005	0.74	0.04	0.01
86	6791400250	0.36	0.06	0.03

	Parcel Number	Total Acres	Total Impervious Acres	Effective Impervious Acres
87	3121079040	4.88	0.30	0.10
88	3121079013	12.45	0.97	0.34
89	1021079015	3.56	0.23	0.07
90	1220059034	0.95	0.13	0.06
91	2820069041	0.67	0.27	0.18
92	2520069053	1.82	0.21	0.08
93	2781320100	0.56	0.11	0.06
94	1820069046	5.25	0.06	0.01
95	1520069028	8.97	0.16	0.03
96	1920069017	10.09	0.12	0.02
97	3420069020	1.28	0.38	0.23
98	120069037	0.82	0.07	0.02
99	720069010	99.75	0.17	0.01
100	561500010	1.00	0.16	0.08
101	1430069022	1.17	0.17	0.08
102	1220069070	0.92	0.05	0.01
103	1220069080	10.28	0.14	0.02
104	1420069093	10	0.41	0.11
105	2468800020	0.53	0.10	0.05
106	2617000030	0.12	0.07	0.06
107	720079032	0.48	0.09	0.04
108	619079058	8.02	0.12	0.02

RESIDENTIAL SAMPLE: EXISTING SERVICE AREA

Summary

	Mean	Std Dev	Sample	Population
Total Impervious Acres	0.10	0.06	123	108,252
Effective Impervious Acres	0.06	0.03	123	108,252

	Parcel Number	Total Acres	Total Impervious Acres	Effective Impervious Acres
1	1974400040	0.22	0.08	0.05
2	3761100246	0.42	0.17	0.11
3	6396000013	0.13	0.09	0.07
4	3840705620	0.29	0.13	0.09
5	2540800020	0.19	0.09	0.07
6	8677900285	0.29	0.09	0.05
7	3211200460	0.23	0.04	0.02
8	1112700100	0.20	0.09	0.06
9	3581100050	0.17	0.07	0.05
10	6675500173	0.17	0.10	0.09
11	3585210380	0.20	0.05	0.03
12	5145100330	0.17	0.07	0.04
13	5649000070	0.24	0.07	0.04
14	1387300960	0.18	0.08	0.05
15	1387300090	0.20	0.08	0.06
16	1036100010	0.21	0.08	0.06
17	2558670050	0.19	0.10	0.08
18	2558640210	0.18	0.07	0.04
19	7955060160	0.11	0.08	0.07
20	6204200590	0.13	0.07	0.05
21	4055700286	0.34	0.17	0.12
22	3761700105	0.26	0.19	0.16
23	4055701485	0.38	0.16	0.11
24	2203800485	0.28	0.14	0.11
25	2200500020	0.24	0.07	0.04
26	3999200710	0.23	0.09	0.06
27	9253900380	0.30	0.12	0.09
28	8043700420	0.20	0.11	0.08
29	1444800110	0.23	0.11	0.08
30	426069072	1.01	0.32	0.20
31	3326069050	1.87	0.33	0.16
32	1775930210	0.18	0.06	0.04
33	1926069035	4.35	0.17	0.04
34	4188000530	0.53	0.13	0.07
35	3404700089	2.92	0.17	0.05
36	2781630100	1.30	0.10	0.03
37	1526059069	4.77	0.11	0.02
38	1115750180	0.81	0.14	0.07

	Parcel Number	Total Acres	Total Impervious Acres	Effective Impervious Acres
39	2944010240	0.45	0.14	0.09
40	8807810830	0.34	0.07	0.04
41	8807800170	0.30	0.13	0.09
42	1150001380	0.43	0.09	0.05
43	6446200205	0.56	0.09	0.04
44	6446000135	0.62	0.14	0.08
45	2424059057	5.69	0.31	0.09
46	1628700130	9.78	0.19	0.04
47	925069182	1.03	0.32	0.19
48	7812800720	0.13	0.08	0.06
49	2641800035	0.20	0.06	0.04
50	7889600605	0.14	0.06	0.04
51	7689600495	0.17	0.08	0.06
52	3163600195	0.15	0.07	0.05
53	7973202140	0.42	0.07	0.03
54	1591000010	0.15	0.08	0.06
55	6620400540	0.18	0.09	0.07
56	133000185	0.23	0.05	0.03
57	1423049045	0.64	0.09	0.04
58	985001276	0.17	0.04	0.03
59	923049148	0.08	0.07	0.07
60	6619900030	0.21	0.08	0.05
61	2923500520	0.20	0.09	0.06
62	2923500240	0.21	0.08	0.06
63	5423010530	0.17	0.07	0.05
64	3276920230	0.81	0.11	0.05
65	224069042	0.94	0.16	0.07
66	6790950020	1.07	0.15	0.06
67	305000460	0.12	0.07	0.05
68	305000210	0.12	0.07	0.06
69	2806000660	0.15	0.08	0.06
70	8078380340	0.18	0.07	0.05
71	7525530680	0.24	0.11	0.08
72	1795920300	0.17	0.07	0.05
73	3876300550	0.19	0.06	0.04
74	3288100370	0.18	0.08	0.05
75	2126059254	0.21	0.07	0.05
76	3578110220	0.17	0.05	0.03
77	1526059069	4.77	0.09	0.02
78	9477200980	0.20	0.06	0.04
79	200800470	0.17	0.07	0.05
80	8123710170	0.21	0.08	0.05
81	9206200180	0.22	0.05	0.03
82	8143000550	0.16	0.08	0.06
83	8651720160	0.27	0.07	0.04
84	8651720430	0.19	0.07	0.04
85	8663260150	0.16	0.06	0.04
86	4054500550	0.83	0.11	0.05

	Parcel Number	Total Acres	Total Impervious Acres	Effective Impervious Acres
87	1243100127	0.44	0.10	0.05
88	1628700130	9.78	0.08	0.01
89	1137301290	0.87	0.12	0.05
90	1726069102	0.34	0.07	0.04
91	1775800910	0.31	0.15	0.11
92	826069226	3.70	0.24	0.08
93	1853000280	1.08	0.25	0.14
94	8155850060	0.35	0.09	0.05
95	8078460150	0.18	0.05	0.03
96	3225069241	0.45	0.18	0.12
97	1473150030	0.48	0.10	0.05
98	1525069021	4.92	0.15	0.04
99	8651480320	0.25	0.08	0.05
100	8651480460	0.22	0.08	0.05
101	8651500760	0.31	0.13	0.09
102	1025069222	0.92	0.14	0.06
103	2625069070	2.78	0.17	0.05
104	3425069009	20.76	0.20	0.03
105	1939120130	0.24	0.07	0.04
106	1785400720	0.32	0.05	0.03
107	8677300140	0.30	0.07	0.04
108	3575300020	0.10	0.04	0.03
109	3575302930	0.23	0.05	0.03
110	1954400130	0.15	0.04	0.02
111	8078400190	0.19	0.04	0.02
112	8078450260	0.15	0.05	0.03
113	7504020870	0.27	0.10	0.07
114	1240700031	1.02	0.06	0.02
115	8078380340	0.19	0.06	0.04
116	1124069077	0.96	0.09	0.03
117	3904920110	0.24	0.08	0.05
118	3904940710	0.20	0.09	0.06
119	3904920310	0.10	0.06	0.05
120	7527200460	0.71	0.25	0.16
121	1149900040	0.18	0.09	0.07
122	6791100010	0.57	0.15	0.09
123	6790990060	0.20	0.08	0.06

APPENDIX C

COMMUNICATIONS & PUBLIC OUTREACH PLAN

"Protecting our rural waterways, farms & forests."

This chapter describes the process that will be used to inform the appropriate audiences, listed below, about the contents and implications of this proposal. Included in this chapter is a summary of the goals of the communication effort, the key messages that will be expressed, and the methods and tools that will be used to convey those messages. This communications effort will take place in the fall of 1999.

GOAL

To educate eastern King County and Vashon-Maury Island citizens about the Rural Drainage and Water Quality Proposal, so that:

- When it's under consideration by the Metropolitan King County Council, members will be able to consider its merits, knowing that a comprehensive public outreach plan has taken place.
- Citizens understand why the Rural Drainage and Water Quality Proposal is needed, how much they will pay for it, and what it will accomplish.
- Citizen feedback is incorporated into the final proposal.

STAKEHOLDERS

In the effort to publicize the report, it will be essential to inform those members of the public that will be the most affected by it, should it be adopted. This translates to all of the potential ratepayers in the proposed surface water management service area. All of the groups that met with King County staff during the development of the proposal will be included in this communications process. All meetings will also be widely advertised to the general public.

- Eastern King County and Vashon-Maury Island citizens that reside in unincorporated parts of King County = potential ratepayers
- Large eastern King County and Vashon-Maury Island landowners from the agricultural, builder / developer and forest land owner community
- Unincorporated towns with concentrations of impervious surface (Fall City, Hobart & Preston)

- Members of the media: reporters & editorial board writers
- Environmental groups
- Flood Control Zone and Water District Commissioners and members

KEY MESSAGES

Key messages are a distillation of the most essential elements of the proposal into concise, easily comprehensible ideas. They will be used to convey the need for, and implications of, the Rural Drainage and Water Quality Proposal.

- This proposal provides the foundation for salmon restoration efforts. For example, a washout up-stream could demolish downstream restoration efforts. Surface water management services actively manage the integrity and capacity of natural and constructed drainage systems.
- Citizens' fee dollars will lessen the impacts of growth and development -- no matter who's at fault. King County is here not to point fingers, but to manage natural resources.
- Citizens' fee dollars will be spent wisely. King County values public input and will return next year to hear your thoughts about our progress. The County aims to be accountable.
- The Rural Drainage and Water Quality Proposal will help maintain the health, property and quality of rural area lands and lifestyles. It will solve flooding problems, keep water clean and help rural farmers and residents.
- This proposal responds to citizens' demands through elements that involve increased enforcement of existing ordinances, ground water plan implementation on Vashon, and citizen accountability through a Rural Liasion.

METHODS

King County Internal & Intergovernmental Communications Activities

1) Intergovernmental relations with rural area municipalities

Communicating with small rural area municipalities about the proposal is important because they are responsive to, and have established networks with, citizens outside their boundaries to whom this fee would apply. Moreover, it is important for these local governments to be aware of the King County Executive's intentions to establish surface water management throughout the County. Councilmembers, City Managers, Mayors, and Public Works Directors of the rural area municipalities of Carnation, Black Diamond, Duvall, Enumclaw, North Bend, Snoqualmie, and Skykomish will be informed of the

Rural Drainage and Water Quality Proposal and the timeline for its implementation.

2) Briefings to the Muckleshoot and Tulalip tribes

The Muckleshoot and Tulalip tribes take a very active role in salmon recovery, habitat management, and land use issues. Meetings with tribal representatives are being coordinated by the tribal liaison in the Endangered Species Act Policy Coordination Office.

3) Councilmember field trip

This event will be scheduled in late October or early November with Metropolitan King County Councilmembers and the Executive. The purpose of the trip will be to visit rural area problem sites that would be addressed by the Rural Drainage and Water Quality Proposal. Rural area community groups and the media will also be invited.

4) Presentations to Watershed Forums / WRIAs & Regional Advisory Committee

Brief presentations on the Rural Drainage and Water Quality Proposal will be made to the Watershed Forums, the Water Resource Inventory Area (WRIA) Steering Committees and to the Regional Funding Advisory Committee to keep them informed.

5) Presentations to the Unincorporated Area Councils

During Executive Gary Locke's administration, councils representing the concerns of King County's unincorporated areas were convened. Of the five Unincorporated Area Councils (UACs) in existence, only Vashon-Maury Island has substantial jurisdiction over affected rural lands. (During the initial outreach process, a meeting was held with the Four Creeks UAC. This group had minimal interest since only a dozen or so property owners within their jurisdiction would be affected.)

On Vashon-Maury Island, meetings with the UAC's Natural Resouce and Land Use Committee have occurred twice and a third meeting is scheduled for late September. A meeting with the general membership of the UAC is expected to take place in October.

Meetings with the newly created Bear Creek and Sno Pass UACs will take place this fall.

6) Internal WLR Division/DNR employee briefing

A second meeting to brief all WLR Division and Department of Natural Resources employees on the Rural Drainage and Water Quality Proposal will be held in October or early November.

External Communications Activities & Tools

1) One-on-one meetings with key stakeholders

One-on-one meetings with key environmental group leaders, developers, farmers, and real estate professionals will take place to update them on the status of the proposal and how it will affect them. A report synthesizing these communications will be distributed to the

Metropolitan King County Council and the Executive's office.

2) Web page

Existing WLR Division web pages will be augmented with Rural Drainage and Water Quality Proposal pages. The King County Executive, Department of Natural Resources, and WLR Division home pages will contain "hot item" links to the Rural Drainage and Water Quality Proposal pages.

3) Materials for WLR Division/DNR Newsletters & Public Communications

Short informative articles will be distributed for publication in the "Downstream News" and other publications. Communications materials about the Rural Drainage and Water Quality Proposal will be available for distribution.

4) Other Councilmembers deliver Rural Drainage and Water Quality Proposal at constituent meetings

Materials and logistical support will be offered to Councilmembers and their staff in order to communicate with their constituencies. Councilmember newsletters, web pages, and town hall meetings are all avenues for information distribution.

5) Continuing communications with rural area community service and neighborhood groups, chambers of commerce, and environmental groups

A copy of the final Rural Drainage and Water Quality Proposal will be sent in late September to the community service and neighborhood groups with whom County staff members met during the initial outreach process. The public meeting schedule and web site information will also be provided.

6) Four public meetings: Vashon-Maury Island, Duvall, Snoqualmie, & Enumclaw

Four public meetings to inform the general public about the Rural Drainage and Water Quality Proposal and to generate comment will be held in October and early November. Two to three weeks prior, advertisements announcing locations and times will appear in local periodicals. Invitations will be sent to the community group and opinion leaders already contacted.

7) Participation in King County's other rural area public processes

WLR Division staff members will participate in, or provide materials for King County's other public rural area meetings including Budget, Comprehensive Plan, and Site Alterations Code meetings.

8) Media: Submit op-ed articles to editorial boards,

The Rural Drainage and Water Quality Proposal will be represented in communications with editorial boards. An appropriately knowledgable individual will author an op-ed submittal for small, rural community periodicals, the Seattle Post-Intelligencer, Seattle Times and South County Journal.

9) Suggest citizen participation during Executive Sims weekly radio show on KUOW

Executive Sims participates in a weekly radio show during which he responds to calls from the public. Callers phone in with questions and concerns on a variety of topics. Rural area citizens will be made aware of this medium to voice their views.