# Table of Contents

Executive Summary ........................................................................................................... 3  
I. Introduction .................................................................................................................. 7  
  A. Water Generates Revenue For Washington ......................................................... 8  
  B. Less Water, Less Opportunity ............................................................................. 10  
  C. Responding To A Changing World ..................................................................... 11  
II. The Case For A Water Management Fee ................................................................. 12  
  A. What Is The Present System Of Water Management In WA? ............................ 13  
  B. The Public Pays for Water Management ............................................................. 14  
  C. What Does It Cost To Process A Water Right Application? .............................. 17  
  D. What Do We Currently Pay For The Water We Use? ........................................ 18  
  E. What Are The Consequences Of Our Present System? ........................................ 19  
III. What Goals Would Be Served by Instituting a Water Mgt Fee System? .......... 20  
IV. Many States Use Water Fee Systems ..................................................................... 20  
V. What Would Washington’s Water Management Fee Look Like? ....................... 23  
  A. What Are The Benefits Of This New System? .................................................... 25  
  B. How Much Money Could Be Generated by This New System? ....................... 26  
VI. Conclusion ............................................................................................................... 27  
Citations ......................................................................................................................... 28

Photographs and graphics used in this report were provided by:

- Center for Environmental Law & Policy  
- Volunteers Jeremy Eckert, John Lewis and Eric Warner  
- Washington State Department of Ecology  
- University of Washington
Purpose

As competing interests place increasing demands on the state’s limited supply of fresh water, crisis situations are increasingly occurring in various watersheds around Washington. Because the waters of the state belong to the public, the state has an obligation to manage water in a way that protects the integrity of our precious water resources for future generations. Yet, despite the importance of water to the state’s economic and environmental well being, there has never been a stable source of funding for adequate management of this resource.

Taxpayers spent more than $20 million in 2004 to cover the state’s costs of managing our water resources. Yet even the current level of funding for the state agency charged with managing water is unstable and inadequate to properly address the state’s legacy of overappropriated waterways and aquifers, low flows in many rivers and streams, illegal water use, and threatened and endangered fish runs. The water management system as it presently exists is inadequately and inequitably funded, with an antiquated fee structure that selectively favors a few large users.

Ensuring our high quality of life into the future depends on maintaining healthy levels of water flowing in our rivers and streams in order to support healthy ecosystems, thriving fish and wildlife populations, businesses, and recreation.

This report proposes the State of Washington collect a water management fee from water right holders to be used to pay the state’s cost of managing the public’s water. It describes the structure of, and rationale for, this fee system. This fee proposal builds on the existing capabilities, infrastructure, and resources of the Department of Ecology (Ecology), which is the agency tasked with the duty to manage the public’s water on our behalf. The fee proposal is intended to extend and strengthen Ecology’s existing capabilities of data collection, management, regulation and enforcement. It will result in a stable, reliable source of funds...
to be used for effective water management. It will promote efficient water use. It will help secure healthy ecosystems and a healthy economy for future Washingtonians.

**Methodology**
The information in this report was gathered from a variety of sources, including public records, published reports and books, and interviews with agency staff.

**Key Findings**
- Washington residents and businesses depend upon water to sustain our health, retain our agricultural heritage, generate power, support industries, recreational and commercial fishing, boating and other aquatic recreation opportunities, and to beautify our surroundings.

- Municipal and industrial water users consume roughly 8% of the water resources used in Washington. The vast majority of these consumers do not hold individual, state-recorded water rights. Rather, they are customers of a public water system and they pay continuing water use and management fees via their utility bills. Agriculture consumes roughly 92% of the water resources used in Washington. Unlike public water-utility customers, agricultural water users generally hold their own individual water rights and pay no water use or management fees.

- Water that is used in Washington generates some sort of revenue or benefit to the person or entity using it. Water has intrinsic and economic value.

- Washington residents and tourists spend millions of dollars annually on water-related outdoor recreation, which boosts our economy. Beyond generating quantifiable revenue, healthy lakes, rivers and streams contribute to the quality of life that we enjoy in Washington.

- There are environmental costs associated with diminished river flows and declining aquifers, including impacts on wetlands and ecosystems that support fish and other aquatic and non-aquatic plants, animals and birds. These costs result in significant
expenditures for fish habitat and other restoration.

- The operating budget for Ecology’s Water Resources Program for Fiscal Years 2003 through 2005 is $32.1 million. There is no stable, secure funding source to pay for this Program. Rather, taxpayers currently pay roughly 60% of the cost of the Water Resources Program through biennial legislative appropriations of money from the state’s General Fund. This funding is subject to shifting economics and politics.

- For decades Ecology has “over-allocated” water from many streams and rivers by permitting people to take more water than the rivers and aquifers can sustainably provide. As a result, many of Washington’s rivers suffer from extreme low flows and poor water quality, and more than a dozen fish species are now listed as threatened or endangered under the federal Endangered Species Act.

- Ecology lacks the financial resources necessary to fulfill its mandated regulatory, managerial, and enforcement roles.

**Recommendations**

A two-phased water management fee should be implemented as follows:

1) For the first five years, a flat annual fee of $25 per water right is assessed for all water permit, certificate and claim holders. The monies collected during this initial phase will be used by the Department of Ecology’s Water Resources Management Program to create a database of verified water rights.

2) Any party applying for a permit to divert surface waters or withdraw ground water will be subject to an initial application fee of at least $200. This fee will be reviewed every other year by Ecology in light of program needs and will at a minimum keep even with the pace of inflation.

3) Any party applying to change or transfer a water right will be subject to an initial application fee of at least $500. This fee will be reviewed every other year by Ecology in light of program needs and will at a minimum keep even with the pace of inflation.

4) Any party applying for an extension of time to apply water to a beneficial use pursu-
ant to a water permit will be subject to an extension fee of at least $500 per year of re-
quested extension. This fee will be reviewed every other year by Ecology in light of pro-
gram needs and will at a minimum keep even with the pace of inflation.

5) Beginning year six, any party withdrawing surface water or ground water for use
under a water use permit, certificate or claim will be subject to an annual water manage-
ment fee based on the average amount of water actually withdrawn or diverted during the
previous five years as evidenced by metering records. Holders of all water rights for other
than agricultural irrigation water use will be assessed a fee of 1/100 of a cent ($0.0001) per
gallon of water used. Holders of water rights for agricultural irrigation use, when at least
90% of water used is for growing crops or livestock, will be assessed a fee of 1/500 of a
cent ($0.00002) per gallon of water used.

When actual use records are not available, fees will be assessed according to total amount
of water permitted, certificated or claimed. Fees will be reviewed every other year by Ecol-
ogy in light of program needs and will at a minimum keep even with the pace of inflation.
Up to 50% of this fee assessed to any one permit, certificate or claim holder in any calen-
dar year may be credited back to the right holder by Ecology to cover reasonable costs of
qualifying water conservation practices or approved watershed improvement measures
undertaken and completed by the water right holder, for implementation of water conserva-
tion programs for water customers served, or for the initial installation of approved metering
devices.

6) Failure to pay water management fees will be presumptive evidence of intent to
abandon a water right.

7) All monies generated by these water management and increased application fees
shall be fully dedicated to funding the costs incurred by Ecology’s Water Resources Pro-
gram for monitoring, metering, enforcement, and water resource management.

Based on reports by Ecology regarding the current number of water permits, certificates,
and claims, as well as an estimate of the annual number of permit applications and transfer
and change applications that are filed, our proposed water management fee system
could generate approximately $28 million over the first five years, and could thereaf-
ther generate as much as $136 million annually – more than enough to adequately
fund Ecology’s annual operating budget of $32 million.
I. Introduction

The assurance of clean, abundant water is not merely a luxury, but is a fundamental requirement of any civilized society. In fact, water sustains life as we know it. The efficient use of water has been a critical component of successful societies for thousands of years. Conversely, the misuse of water—its inefficient or inequitable allocation—has often placed societies at risk.

Washington residents and businesses depend upon water to sustain our health and our agricultural heritage, generate power, support industry and commercial fishing, and to beautify our surroundings. We use the state’s rivers, streams, and wetlands for a wide array of activities, ranging from kayaking, sports fishing and white-water rafting to swimming, photographing wildlife or simply sitting by a stream and enjoying its peaceful flow. Washington’s flora and fauna also depend upon our shared water resources.

Securing the benefits of Washington’s water resources requires proactive, well funded, and professional water management. The state, however, is failing to address its present and future water needs, in part because the governmental agencies charged with managing water resources go largely under-funded each year. With so many sectors of Washington’s economy dependent upon clean water—such as the technology industry, agriculture, outdoor recreation, and tourism — this negligence threatens to undermine the future growth and stability of Washington’s economy. Investing in water management now will help ensure that we have the clean, flowing water necessary for a sound economy and for future generations to use and enjoy.

Municipal and industrial water users consume roughly 8% of the water resources used in Washington. The vast majority of these—over 4.5 million users (such as urbanites connected to a public water system)—do not hold individual water rights. Rather, they are customers of a public water system and they pay continuing water use and management fees via their utility bills. Agriculture consumes roughly 92% of the water resources used in
Unlike public utility customers, agricultural water users generally hold their own water rights and pay no water use or management fees. For the one-time bargain cost of applying for and receiving a state water right permit (or, in some instances, merely registering an old water right claim), such agricultural users have the privilege of using the public’s water resources—forever—for free. This report is directed primarily toward promoting a fee system whereby the state’s program for managing Washington’s water resources can be more equitably financially supported by the latter category of water consumers—namely, those water right holders who profit from their water right to use the public’s water, but who do not contribute toward the ongoing management of this precious resource.

While it is clearly important to ensure an equitable, efficient system of managing water for present needs, it is also vital that we plan today for tomorrow’s water needs. We must also recognize that there are many difficult challenges to realizing this goal. For example, according to Washington State’s Office of Financial Management, the number of people living in Washington increased by 21% between 1990 and 2000. Estimates for 2030 predict as many as 2.5 million more residents in Washington, bringing our population to 8.45 million. The increase in population, in some cases, has brought with it increased water consumption, while in others, water conservation programs have been successful in meeting demands even in the face of an increasing population.

To achieve proper water management, we must first determine:

1) the quantity of water that is presently being used,
2) the quantity of water that is presently flowing in our rivers and streams,
3) the minimum instream flow levels that must be maintained in our rivers and streams in order to maintain their ecological health and integrity, and
4) the quantity of water that is actually available for future out-of-stream uses.

While much needs to be done to create a functioning water management system based on this information, the implementation of a water management fee system as proposed in this report provides the necessary groundwork to take the first step to address our intensifying water issues.

A. Water Generates Revenue For Washington

Much of the water that is used in Washington generates some sort of revenue or economic benefit to the person or entity using it. Consider all of the industries essential to
Washington’s economy that would not exist without their ability to use water: pulp mills and paper manufacturers, aluminum smelters, food processors, and golf courses, to name just a few. Water suppliers sell water to their customers at varying rates in order to pay for the cost of withdrawing and delivering that water. Industries use water to produce goods that are sold for a profit. Farmers use water to irrigate crops and to care for livestock they ultimately sell. Simply put, Washington’s economy would wither without readily available water.

Whereas economists once viewed water and other environmental resources as a source of raw supplies that had value only after being extracted, today’s economists recognize significant financial value in the preservation of natural resources. Indeed, the recreational and quality-of-life enhancements provided by natural resources translate to staggering financial values, which in some instances far exceed the value that might be derived from resource extraction.

The tourism industry serves as one example of how pristine natural resources generate considerable revenue. Visitors to Washington State made 66.6 million trips during 2003, spending an estimated $11.2 billion, resulting in $3.5 billion in earnings and generating approximately 139,200 jobs. This spending marks a 3.9% growth from the previous year.

Because Washington is a temporary home for numerous migratory bird species, is a showcase for three national parks, and includes some of the most diverse populations of salmon, trout and warm water fish in the nation, it is not surprising that wildlife watching and sport fishing generates an influx of cash and jobs in the Evergreen State. Wildlife watching, a joy experienced by more than 2.5 million people in Washington each year, results in annual dividends exceeding $980 million. Fishers’ receipts mirror that of wildlife watchers, totaling nearly $854 million in Washington during 2001, placing Washington first in the Northwest and eighth in the nation, for total sport fishing revenues. The millions of dollars spent on water-related outdoor recreation support thousands of local business that provide lodging, fuel, food and boats for tourists.

Without rivers and streams for people to visit and enjoy, this tourism revenue would diminish. According to a survey prepared for the Washington State Tourism Division, half of the
overnight trips made by Washington residents in 1997 directly involved Washington’s water resources, with 11% of such trips involving freshwater fishing; 10% involving canoeing, rafting, or kayaking; 9% involving motor boating or water skiing; and 22% involving swimming.\(^{11}\) Hiking and camping, which both typically depend on access to water, were featured in 65% of these vacations.\(^{12}\) Washington’s financial success in this field is inextricably linked to the water flowing through the state and the species that are dependent upon well-managed natural resources.

Beyond generating quantifiable revenue, healthy lakes, rivers and streams contribute to the quality of life that we enjoy in Washington. Major corporations, such as Microsoft, use the state’s natural beauty and resources as a major recruitment tool to attract the best talent from around the world.\(^{13}\) According to Richard Florida, Heinz Professor of Economic Development at Carnegie Mellon University, and author of the best-selling book, *The Rise of the Creative Class: And How It’s Transforming Work, Leisure Community and Everyday Life*, there is a significant relationship between environmental quality and recreational amenities, the concentration of high technology industry, and the willingness of workers to relocate.\(^{14}\) He cites a series of surveys that illustrate the quality of life in a community is critically important to attracting people to a new job, and that environmental quality and natural amenities are among the most important factors in the location of high technology businesses.\(^{15}\) From this study, it becomes apparent that properly managing Washington’s water is an investment in the environment, in maintaining our quality of life, and in the continued vitality of business in Washington.

### B. Less Water, Less Opportunity

Any economic value placed on water in rivers and streams must also take into account the costs that accrue when these water resources become depleted. Unfortunately, removing water from rivers and streams does not merely cause them to “shrink,” it creates far-reaching environmental and societal problems that are at best, expensive, and at worst, impossible to fix.\(^{16}\)

Indirect societal costs of diminished stream flows include the cost of lost recreation and tourism opportunities for sport fishing, boating, canoeing, rafting, hunting, bird-watching, camping, hiking and sight-seeing.\(^{17}\) These losses could be significant considering tourism is Washington’s third largest industry, worth $11.2 billion a year.
Besides these lost recreation and tourism opportunities, losses are also likely to occur in other economic sectors such as in the commercial fishing industry, and in the utility industry, where higher wastewater treatment costs will result due to loss of adequate instream flows. Degraded streams will also contribute to an overall lower quality of life in Washington, and will make it more difficult to retain existing companies and attract new businesses and workers to our state.

Environmental costs of diminished flows include impacts on wetlands and ecosystems that support fish and other aquatic and non-aquatic plants, animals and birds. Although low instream flows have many impacts on fish habitat, one gets a sense of the magnitude of those impacts by considering the cost of habitat restoration. Since 2000, approximately $214 million has been spent on nearly 600 salmon habitat restoration projects by the Washington Salmon Recovery Funding Board alone.\(^\text{18}\)

\section*{C. Responding To A Changing World}

Another crucial factor that must be recognized and addressed as we manage our water resources is climate change. While the exact nature, rate and magnitude of climate change in Washington State is difficult to predict, there is strong scientific consensus that it has already begun to affect our region dramatically. For example, the onset of spring snow melt in the Washington Cascades has progressively come earlier in the year; it now begins nearly three weeks earlier than it did in 1950.\(^\text{19}\) This phenomenon is likely to result in a mosaic of future change in the rivers throughout our state, manifested by shifts in the timing and range of flows, as well as in the total yearly discharge.

\begin{itemize}
\item Increased severity of flooding in the winter and spring and of water shortages in late summer and fall;
\item Lowered flows as a result of water shortages in the summer in the Columbia River and other major Washington river systems, significantly reducing water available for
\end{itemize}
irrigation, endangered salmon, and hydropower production; and
- Increased landslides as a result of winter flooding.\textsuperscript{20}

A recent analysis of the effects of climate change on our nation's economy resulted in two significant conclusions\textsuperscript{21}:

1) the Pacific Northwest (Washington, Oregon, Western Idaho) is the region most sensitive to changes in water use as a result of climate change, and

2) climatically-induced changes in surface runoff could result in losses in the agricultural sector to be as high as $1 billion (1998 USD) and as high as $4.7 billion in the hydropower sector across the region.

Climate change, population growth, urbanization, and shifts in the nature and location of land and water use by agriculture, industry and public utilities all have the potential to contribute to increasing demands on our rivers and streams. The struggle to provide a sustainable supply of water for this increasing population, as well as to provide opportunities for recreation and habitat for fish and wildlife will only intensify over time as more people move to Washington.

The potentially devastating impact of climate change makes scientifically-based water management a necessity. Because of the likely climate changes to come, and the increased pressures on our water resources, we must position ourselves now to address the increasing demand and competition for a limited resource. Proper water management now is a prerequisite for ensuring stable water supplies in the future. Stable, adequate funding for water management is a necessity that has been too long overlooked.

II. The Case For A Water Management Fee In Washington

As previously illustrated, Washington requires the assurance of abundant, clean, reliable water for a wide variety of needs. Ensuring our high quality of life into the future depends on maintaining healthy levels of water flowing in our rivers and streams in order to support healthy ecosystems, thriving fish and wildlife populations, businesses, and recreation.
However, the present system of water management in Washington does not and can not adequately address these needs, in part because of inadequate funding.

The Department of Ecology (Ecology), the state agency charged with managing the state’s water, lacks the resources necessary to fulfill the regulatory, managerial, and enforcement roles mandated by state law. Without proper funding, water laws are not enforced, exacerbating our ecologically disastrous legacy of over-allocating water resources. It is therefore vital that a stable source of funding be established that not only pays the cost of a properly functioning water management system, but also provides incentives to use water more efficiently.

A. What Is The Present System Of Water Management In Washington?

The waters of this state belong to the public. Ecology serves as the trustee of our water and has been assigned the responsibility to manage water resources on the behalf of all Washington citizens. It does so through its Water Resources Program, which is responsible for:

- Managing water rights
- Assessing, setting and achieving minimum flows for rivers and streams
- Licensing and regulating the drilling of water wells
- Assisting with adjudication of water rights (court determinations of who has a valid right to use a specified amount of water from a given river or stream)
- Preparing for and responding to drought and climate change
- Overseeing the safety of Washington’s dams
- Assisting 42 local watershed planning efforts to develop water management plans
- Enforcing against waste and illegal water use and ensuring compliance with Washington’s water laws
- Supporting efficient water use
- Compiling and providing water resources data and information

Fulfilling these duties has proved to be difficult for Ecology. One-quarter of the state’s 62 watersheds do not have enough water to meet the needs of both people and fish. In these watersheds, we have already over-tapped, or “over-allocated” our water by giving people the right to take more water than the rivers and aquifers can sustainably provide. As a result, many of Washington’s rivers suffer from extreme low flows and poor water
quality. As a direct result of these low flows, more than a dozen fish species are now listed as threatened or endangered under the federal Endangered Species Act. This historical legacy of over-allocating Washington’s water resources challenges efforts to protect and restore stream flows and significantly hinders the development of water management plans.

A fundamental starting point for managing water is to understand how much is being consumed. "To effectively manage water supplies we’ve got to know how water is actually being used," said Joe Stohr, program manager for Ecology’s Water Resources Program. "With this knowledge, we can better protect people’s water rights and help ensure there is water available for fish." However, in violation of a 1993 law requiring most water use to be metered, the majority of water used in Washington is NOT metered. The Legislature made available $3.4 million in 2002 for grants to pay up to 85% of a water user’s cost of purchasing and installing a meter. However, only a small percentage of that money has actually been spent for its intended purpose, due to a lack of requests for the grants and opposition from agricultural water users to measure and report their water use.

B. The Public Pays for Water Management

The most recent operating budget for Ecology’s Water Resources Program for Fiscal Years 2003 through 2005 is $32.1 million. Of the total 141.1 employees in this Program, 62.8 full-time employees administer water rights, including making water permit and water right transfer/change decisions. This activity accounts for 35% of the overall Water Resources budget, at $11.39 million (see Figure 1). In contrast, 7.3 full-time employees are dedicated to water resources compliance efforts and 9.4 employees are dedicated to assessing, setting and achieving instream flows. These two programs combined receive roughly $3.95 million, or 13% of the total Water Resources budget.

Considering water is being used by nearly 1 million water rights holders (166,560 claims, 52,573 permits and certificates, and more than 750,000 exempt wells) throughout the state, 17 staff working to protect stream flows and stop illegal use is a small drop in a very large bucket of needed effort. Yet the state continues to issue new water rights without fully understanding the extent of their impact on existing water rights.

Ecology’s Water Resources Program is not self-supporting; rather, it is funded primarily through allocations made by the State Legislature from the General Fund. The Water
Resources Program contributes relatively scant revenue to the General Fund (about $40,000 per biennium from water right fees and penalties, and about $80,000 per biennium from dam safety fees). Of all Ecology’s programs, its Water Resources Program is funded to a greater percentage by the General Fund than any other program. Therefore, the budget for water resource management is subject not only to overall statewide budget trends, but shifting political whims. As a result, the Water Resources Program has experienced drastic shifts in funding and staffing over time. For example, between 1997 and 2005 (encompassing four biennial budget cycles), the percent of Ecology’s Water Resources Programs budget funded by the General Fund dropped from 81% to 60%, reflecting increased competition from other state programs. This means that many ongoing water management programs, such as issuing and managing water permits, are increasingly
reliant on funds allocated for short-term, dedicated uses. This type of fiscal management can only result in shortchanging both types of programs.

Currently, the only fees paid toward water resource management are application and permit fees for new water right permits and transfers or changes to existing water rights. In 1917, when the State of Washington first required prospective users to obtain a permit before withdrawing water, permit applicants were charged a $10 application fee.\textsuperscript{40} This fee structure, originally intended to cover the costs of water rights administration, has changed only modestly since 1917. Water right application fees return to the State General Fund.\textsuperscript{41} Ecology estimates these fees pay for only ½ of 1% (1/2%) of the actual cost of processing water rights.\textsuperscript{42}

\textbf{Figure 2: Example Water Right Fees in Washington State (CFS - Cubic Feet Per Second)}

<table>
<thead>
<tr>
<th>Example Uses and Volumes (New or Change)</th>
<th>Current Fees</th>
<th>Cost per CFS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small use (domestic, garden, barn @ 0.1 cfs)</td>
<td>$20</td>
<td>$200</td>
</tr>
<tr>
<td>Medium size use (100 acre orchard or small water system @ 2 cfs)</td>
<td>$55</td>
<td>$27.50</td>
</tr>
<tr>
<td>Large use (municipal, industry or irrigation system @ 100 cfs)</td>
<td>$605</td>
<td>$6.05</td>
</tr>
<tr>
<td>Very Large use (municipal, industry or irrigation system @ 175 cfs)</td>
<td>$1,055</td>
<td>$6.03</td>
</tr>
</tbody>
</table>

Despite such heavy reliance on public money to fund water management, the Legislature has not significantly increased water permit application fees since 1917. Although the Legislature in 1993 recognized that “a water right confers significant economic benefits to [a] water right holder” and that “since water rights are of significant value, water right applicants should contribute more to the cost of administration of the water rights program[,]” it also concluded, interestingly, that “an abrupt increase in water rights fees could be disruptive to water rights holders and applicants.”\textsuperscript{43}

The Legislature in 2004 created a task force and directed it to “develop proposals for and recommend several options for funding the state’s water resource programs, including both operating programs and capital costs for water program implementation.”\textsuperscript{44} Despite a directive from the Legislature, and notwithstanding engaging in nine facilitated meetings between August and December 2004, \textbf{this task force failed to present any options or recommendations for future funding}.\textsuperscript{45}
Therefore, despite increasing costs to administer the Water Resources Program, and decreasing funding from the General Fund to do so, the direct beneficiaries of the program — those who enjoy free use of the public’s water — will likely continue to pay nothing toward the state’s cost of managing this precious resource unless state policy makers come to grips with solving this critical problem.

C. What Does It Cost To Process Water Right Applications?

The taxpayers’ cost to process a water right application under the present water management system is estimated by Ecology to be $3,350 for Conservancy Board processing, $7,435 for Ecology processing, and $0 if an applicant chooses to pay for expedited cost reimbursement, contractor processing. Conversely, the cost to the applicant for these
three procedures is estimated to be $605, $55, and $21,800, respectively. Ecology estimates the average actual total costs per application to be: $3,955 (Conservancy Board), $7,490 (Ecology), and $15,700 (cost reimbursement contractor). See Figures 3-4.

The difference among these systems is due to the nature of the work required (the cost reimbursement contractor method must first process all outstanding senior applications from the same water source), the availability of non-paid volunteer time (as is the case with Water Conservancy Boards), and Ecology staff cost differential. The per-hour rate for Cost Reimbursement contactors (estimated at $110 per hour) is more than twice that of Ecology staff (estimated at $50 per hour including salary, benefits, space, equipment, travel, training, etc.).

Clearly, there is great inequity between the cost to taxpayers, the cost to the applicant, and the total cost of processing water rights applications under these three methods. The public would be better served if a greater portion of the actual costs were borne by the beneficiaries of the program—the water right holders who enjoy free use of the public’s water.

D. What Do We Currently Pay For The Water We Use?

People and businesses that hold individual rights to use water have paid the nominal cost associated with the application (in most cases, not much more than $10), and pay energy and equipment costs associated with pumping water from a river or aquifer. However, once a permit is granted they pay nothing for the water actually used or the environmental or societal costs of using that water.

Persons receiving their water from a public water supply system may be accustomed to regularly paying water bills, but there are no requirements in Washington law that water rates be standardized, or that customers pay anything more than the cost of delivering water. Consequently, there are a variety of rate structures used to assess costs from ratepayers, some of which promote the inefficient use of water. Some water suppliers charge a fixed fee (or flat rate) that is not dependent on the amount of water used. Others charge larger consumers a higher rate (an increasing or inclining block rate), which encourages efficient water use and discourages wasteful uses. Some
charge less per increment of water as usage increases (a declining block rate). Water systems also frequently charge commercial, industrial and agricultural users less than domestic users.

Following are some examples of the rates paid by different types of users for 100 cubic feet (ccf; one ccf = 748 gallons) of water:

- Spokane residence May and June 2004: $7.51 per month plus 64¢ per ccf (approx. $1.11/ccf)
- Tacoma residence June through September 2004: $10.95 per month, plus $.894 per ccf for the first 500 cubic feet of water, and $1.10 for each ccf thereafter (approx. $2.70 per ccf)
- Exempt well: $0 for up to 6.7 ccf/5,000 gal/day.
- An unnamed paper manufacturer in Tacoma paid $2,714,783 in 2002 for 7,596,557 ccf (approx. $0.36 per ccf)
- The Port of Seattle, including Sea-Tac Airport, paid $1,051,815 in 2002 for 516,457 ccf ($2.03 per ccf)
- Customer of Roza Irrigation District in the Yakima Valley in 2003: $90 per acre (approx. $0.20 per ccf)
- Customer of Sunnyside Valley Irrigation District in Yakima and Benton Counties: $57.50 to $65.75 per acre for up to three acre/feet per year ($0.044 to $0.050 per ccf)
- Individual irrigator holding a water right: $0

E. What Are The Consequences Of Our Present System?

Under the current system, there is little financial incentive to use water efficiently. As a result, water is often used inefficiently or wasted, and public values, particularly instream values, are ignored, often because they are undervalued. Water resources will continue to be wasted until water use is priced in a way that requires people pay according to the amount of water they use.

Taxpayers spent more than $20 million in 2004 to cover the state’s costs of “managing” our water resources. Yet even the current level of funding for Ecology’s Water Resources Program is inadequate to properly address the state’s legacy of over-appropriated waterways and aquifers, low flows in many rivers and streams, illegal water use, and threatened and endangered fish runs. The water management system as it presently exists is un-
stable, inadequately and inequitably funded, with an antiquated fee structure that selectively favors a few large users.

III. What Goals Would Be Served By Instituting A Water Management Fee System?

In order to better serve the needs of all who depend on reliable, clean instream flows, our proposed revised system would generate funds that would be collected by and used to sufficiently fund Ecology’s Water Resources Program. CELP recommends these funds be used specifically to accomplish the following:

- Verify the estimated 219,000 existing water claims, permits and certificates in order to ascertain how much water is actually being used compared to what can be legally used;
- Create a publicly-accessible, accurate database of existing water rights, water use information, and real-time instream flow information;
- Set instream flows in all mainstem rivers and key tributaries in Washington
- Implement metering statewide;
- Gauge rivers and key tributaries to know how much water is in streams;
- Buy or lease valid water rights so water can be left in streams and rivers to be used for instream purposes, such as improving water quality, providing fish and wildlife habitat, and public use and enjoyment;
- Enforce against wasted and illegal water use;
- Upgrade inefficient water systems, both municipal and agricultural; and
- Provide incentives to use water more efficiently.

IV. Many States Use Water Fee Systems

There are numerous precedents throughout the United States for establishing a system of water management fees...it is time for Washington to follow the lead of these progressive states.
water management fees, including a variety of combinations of initial application fees, yearly and seasonal use fees, flat and graduated block fees, fees associated with changes in the original permit, and penalties. These fees provide direct funding for the administration of the permitting, enforcement, and monitoring programs. In addition, these fee structures also promote conservation. It is time for Washington to follow the lead of these progressive states.

**Minnesota** assesses an annual fee based on the volume of water used. A Minnesota water permit holder pays a minimum of $101 annually for any volume of water used up to 50 million gallons. An additional $3.00 per million gallons is assessed for water used between 50 and 100 million gallons per year; $3.50 per gallon is assessed if the volume appropriated is between 100 and 150 million gallons annually, and so on up to a maximum rate.\(^{58}\) As in all other states with some sort of volumetrically-based annual fee, the Minnesota water user pays an amount indexed to the degree that their water use strains the water resources of that state.

**Arizona** requires payment of an annual groundwater withdrawal fee, which is established every year by the Director of the Arizona Department of Water Resources, and that cannot exceed $5 per acre foot in active management areas such as Tucson and Phoenix.\(^ {59}\) In particular, the annual fee is flexible; rates vary from region to region and year to year in response to changing water availability, water use patterns, as well as to varying administrative needs of the Department of Water Resources.\(^ {60}\) Fees collected go to the Arizona General Fund and toward Arizona’s water banking purposes.\(^ {61}\) Temporary groundwater permits can be issued for up to five years.\(^ {62}\) Charges for the temporary permits increase from $25 per acre-foot of groundwater for the first year, to $400 per acre-foot for the fifth year.\(^ {63}\)

**Oregon** assesses a one-time base fee of $300 for applications for groundwater or surface water withdrawals, along with an additional volumetric application fee tied to the amount requested.\(^ {64}\) An additional $250 is charged to record a water right permit.\(^ {65}\) In addition, Oregon adopted a comprehensive schedule of charges for a variety of other administrative actions. Notably, all moneys received under this system are deposited in the Water Resources Department Water Right Operating Fund, rather than the state general fund.\(^ {66}\)

**Idaho** assesses volumetrically-based application fees, ranging from a minimum of $100 for under 0.20 cfs, to $6,610 for withdrawals of 500 cfs or more, with additional charges as-
sessed for blocks of water appropriated above that level.\textsuperscript{67} Fees also exist for a wide range of other administrative actions, such as applications for water right amendments or extensions of time to use water.\textsuperscript{68} All fees received by the Idaho Department of Water Resources are deposited into a “water administration account.”\textsuperscript{69}

**California** enacted a new annually-amended fee structure in 2003 that is intended to fully fund its water rights management. Californians currently pay an application fee of $1,000 plus $15 for each acre foot the applicant seeks to divert in excess of 10 acre feet, with total application fees not to exceed $400,000.\textsuperscript{70} Applicants for a change to an existing water permit pay $1,000 (and in some cases $2,000) plus an additional $0.30 for each acre foot in excess of 10 acre feet to be used, for a total fee not exceed $5,000.\textsuperscript{71} Furthermore, California assesses a fee of $1,000 for an extension of time to put water to use under a permit.\textsuperscript{72} In addition, California water right holders must pay a minimum annual fee of $100, plus, for amounts greater than 10 acre feet, must pay $0.025 for each acre foot used in excess of 10 acre feet.\textsuperscript{73} The comparative water fee study illustrated above is summarized in Figure 5 below.

**Figure 5: Example State Application/Permit Fees for Water Usage and Deposit Information**

<table>
<thead>
<tr>
<th>State</th>
<th>Application/Permit Fee</th>
<th>Fee for water usage</th>
<th>Fee is deposited into</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td>Generally around $75</td>
<td>$101 annually, and up; Fee depends upon volume used</td>
<td>Minnesota’s General Fund</td>
</tr>
<tr>
<td>Arizona</td>
<td>Water storage permit application $250 ; Water storage permit $100</td>
<td>Not greater than $5 annually per acre foot of groundwater</td>
<td>Arizona General Fund and Arizona’s water banking program</td>
</tr>
<tr>
<td>Oregon</td>
<td>$300, in addition to a $250 permit recording fee, plus a volumetric fee of $200 for first second foot, $100 for each additional second foot</td>
<td></td>
<td>Water Resources Department Water Right Operating Fund</td>
</tr>
<tr>
<td>Idaho</td>
<td>$100-$6,610, depending upon volume used</td>
<td></td>
<td>Water administration account</td>
</tr>
<tr>
<td>California</td>
<td>$1000 plus $15/acre foot in excess of 10 acre feet, maximum of $400,000</td>
<td>$100 plus $.025 per acre foot in excess of 10 acre feet</td>
<td>Water Rights Fund</td>
</tr>
</tbody>
</table>

As discussed earlier, Washington water right holders pay minimal application fees, and after securing a water right, pay nothing for the water used. However, Washington water
laws provide at least one use-based fee example: power license fees. Power fees are paid annually by anyone "claiming the right to the use of water...for power development" and are based on the theoretical horsepower of a power plant.

Lastly, the Washington Department of Health (DOH) provides a fee framework worth considering. Most entities that supply water for public use must submit a water system plan that describes the services provided and gives detailed information about projected water use and water supplies. The DOH imposes a fee system for reviewing and approving these plans and associated project reports and construction documents. Fees range from $134 to review a water system plan for fewer than 15 connections, to $5,305 for water system plan review for 10,000 or more connections. Additionally, DOH collects a 25¢ per connection charge from public water suppliers to fund activities of the DOH Office of Drinking Water in developing and implementing conservation rules.

We have drawn on the strengths of these fee systems, as well as on the thoughtful comments of numerous committed members of the Washington water community in both the public and private sectors, to develop a recommended water management fee structure for Washington.

V. What Would WA’s Water Management Fee Look Like?

A water management fee should generate a reliable revenue source that allows for a significantly more comprehensive, uniform, and equitable system of water management. Separation of water management funding from politics is an essential component of an effective water management system. A self-sustaining water management funding system assures its long-term viability by freeing it from the vacillating budgetary and political whims of the Legislature and Governor.

We recommend that a new water management fee system be adopted in two stages. For the first five years, we propose that a flat fee of $25 be assessed from all water permit, claim or certificate holders. In addition, application fees for permits, transfers and changes, and extensions increase as indicated below. The monies collected during this initial phase will be placed into a fund that will support the creation of a database that will address one of the major shortcomings of our present state of affairs — woefully inadequate, out-of-date information about how much water is being used by whom. The Department of Revenue estimated in 2004 that the cost to implement a fee collection system would be $1.7 million, which would in part fund a separate computer system and administration program.
fortunately, Ecology is not confident it has accurate information about the identity of water rights holders, and some of the $1.7 million would be needed to ground-truth Ecology’s current records. A newly-created water-right database will be the basis for the second phase of the new system, which assesses an annual volumetric water management fee from all water permit, certificate and claim holders.

The water management fee system has the following components:

1) For the first five years, an annual flat fee of $25 per water right is assessed for all water permit, certificate and claim holders. The monies collected during this initial phase will be used by the Department of Ecology’s Water Resources Management Program to create a database of verified water rights.

2) Any party applying for a permit to divert surface waters or withdraw ground water will be subject to an initial application fee of at least $200. This fee will be reviewed every other year by Ecology in light of program needs and will at a minimum keep even with the pace of inflation.

3) Any party applying to change or transfer a water right will be subject to an application fee of at least $500. This fee will be reviewed every other year by Ecology in light of program needs and will at a minimum keep even with the pace of inflation.

4) Any party applying for an extension of time to apply water to a beneficial use pursuant to a water permit will be subject to an extension fee of at least $500 per year of requested extension. This fee will be reviewed every other year by Ecology in light of program needs and will at a minimum keep even with the pace of inflation.

5) Beginning year six, any party withdrawing surface water or ground water for use under a water use permit, certificate or claim will be subject to an annual water management fee based on the average amount of water actually withdrawn or diverted during the previous five years as evidenced by metering records. Holders of all water rights for other than agricultural irrigation water use will be assessed a fee of 1/100 of a cent ($0.0001) per gallon of water used.
Holders of water rights for agricultural irrigation use, when at least 90% of water used is for growing crops or livestock, will be assessed a fee of $0.00002 per gallon of water used. When actual use records are not available, fees will be assessed according to total amount of water permitted, certificated or claimed.

Fees will be reviewed every other year by DOE in light of program needs and will at a minimum keep even with the pace of inflation. Up to 50% of the annual volumetric fee assessed to any one permit, certificate or claim holder in any calendar year may be credited back to the right holder by Ecology to cover reasonable costs of qualifying water conservation practices or approved watershed improvement measures undertaken and completed by the right holder, for implementation of water conservation programs for water customers served, or for the initial installation of approved metering devices.

6) Failure to pay water management fees will be presumptive evidence of intent to abandon a water right.

7) All monies generated by these water management and increased application fees shall be fully dedicated to funding the costs incurred by Ecology’s Water Resources Program for monitoring, metering, enforcement, and water resource management.

A. What Are The Benefits Of This New System?

The water management fee structure that we propose has the specific goal of generating consistent, reliable funds dedicated solely to the Water Resources Program of the Washington State Department of Ecology. This structure includes not only updated permit, transfer and extension application fees, but also yearly fees that will be volumetrically based; that is, the greater demand the user places on the environment – the commons shared by all of Washington’s residents – the greater the financial burden borne by the user. In addition to ensuring the continued viability and effectiveness of the Water Resources Program, this management fee is also structured to promote both metering and conservation.

Complete and accurate metering records are vital to understanding how our water resources are actually being utilized; this information is absolutely necessary for making truly meaningful policy and management decisions.
It is also vital in developing policies to promote better conservation of our water resources given the increased demands that will result from continued population growth and the uncertainties represented by climate change. This need is partially addressed by allowing up to 50% of the yearly user fees to be devoted to installing meters and/or adopting approved conservation measures.

B. How Much Money Could Be Generated By This New System?

Because of the poor state of our present database of water rights in Washington, we do not have a precise idea how much revenue is likely to actually be generated under this system. However, Ecology reports that its records show there are 166,649 water right claims, 3,230 water permits and 49,344 water right certificates. Based on this report, assessing a flat rate of $25 per claim, permit and certificate for the first five years of our proposed management fee system, would generate an estimated $5,480,575 annually. Additionally, based on the numbers of new permit applications (155) and transfer and change applications (258) filed in 2004, we estimate $160,000 could be generated annually from increasing these application fees. Accordingly, approximately $28 million could be generated from imposing this fee system for the first five years. This figure does not consider potential revenue from extension applications, since Ecology has no data indicating how many such extensions are granted annually.

Estimates for revenue generated from assessing an annual volumetric fee is even more speculative. Ecology does not have data that indicates how much water can legally be used in Washington, let alone how much water actually is being used. However, one study does give an indication of the potential returns. Based on 1995 data, the Washington Department of Natural Resources estimated that total daily water use in Washington was 8.86 billion gallons/day, which translates into 3.2 trillion gallons/year. If, for example, 72% (2.3 trillion gals/year) of this water is used by agriculture, and 28% (900 billion gals/year) is used by non agricultural diversions, then applying our proposed rate structure ($0.00002/gal for agricultural use and $0.0001/gal for non-agricultural use), and assuming 100% reporting and compliance, the revenue generated from the water management fee assessed beginning in year six could be $46 million/year from agricultural users, and $90 million/year from non-agricultural users, for a total (hypothetical max) of $136 million yearly.
VI. Conclusion

The struggle to provide a sustainable supply of water for people, industry, and agriculture, to provide opportunities for recreation, and to provide habitat for fish and wildlife will only intensify as more people move to Washington. Despite the importance of water to the state’s economic and environmental well being, there has never been a stable source of funding for adequate management of this resource. Washingtonians are living with the legacy of poor water management: “over-allocated” rivers and streams that now suffer from extreme low flows and poor water quality, and more than a dozen fish species are now listed as threatened or endangered under the federal Endangered Species Act.

In order to ensure a healthy environment and healthy economy for future generations, we must take steps now to fund an appropriate and effective water management system. Washington can no longer afford to rely on its antiquated water permit fee system and fluctuating funding for Ecology’s Water Resources Program. We should draw on progressive examples of other states and adopt a water management fee system that not only adequately funds water management, but also brings us into 21st century thinking about how to value and sustain our precious water resources.
Citations

1 U.S. Geological Survey, 1998, Circular 1200, “Estimated Water Use in the United States.” For purposes of these statistics, it is important to distinguish between consumptive and non-consumptive water rights and water use. Hydroelectric power producers, for example, hold water rights for use in generating electricity. Such water use is considered non-consumptive because the water is contemporaneously returned to the river or stream from which it was taken. None is taken up by crops, or diverted for consumption elsewhere. When factoring such non-consumptive water rights into a summary of all permitted water uses, however, agricultural water rights account for 74% of Washington’s overall water withdrawals.


4 Seattle Public Utilities provides an example: “Consumption today is below what it was in 1980, despite the fact that the population served has grown by more than 20% since that time. Current water demand in the SPU service area is estimated to be more than 30 mgd less than projected without conservation. By encouraging sustainable improvements in resource efficiency without negative impacts on lifestyles or the economy, water consumption per capita has fallen by over 20% in the SPU service area since 1990.” Seattle Public Utilities’ Ten Year Conservation Program Plan (2002), p. 2.


7 Ibid, V.


9 Id.

10 Id.


12 Id.

13 CELP volunteer, Jeremy Eckert's informal personal interview with Doug Schindler, Director of Field Programs for the Mountain to Sound Greenway Trust, 2/04.


15 Id. at 17.

16 Power, T.M. Economic well-being and environmental protection in the Pacific Northwest:


22 RCW 90.03.010.

23 RCW 43.21A.020; RCW 90.03.010.


28 Id.

29 Several environmental groups, including CELP, successfully brought a lawsuit to compel Ecology to enforce a 1993 statute that requires metering of all new surface water diversions, all diversions from waters where salmon stocks are depressed or critical as determined by the Department of Fish and Wildlife, and all diversions of 1 cubic foot per second or more. RCW 90.03.360. In March 2001, the Thurston County Superior Court ordered Ecology to achieve, by March 2003, metering of 80 percent of water use in each of 16 critical watersheds (Nooksack, Snohomish, Cedar-Sammamish, Duwamish-Green, Puyallup-White, Chambers-Clover, Quilcene-Snow, Elwha-Dungeness, Walla Walla, Middle Snake, Lower Yakima, Naches, Upper Yakima, Wenatchee, Methow, and Okanogan). As of the date of this publication in 2005, Ecology has been unable to demonstrate to CELP that it is in full compliance with this court order, let alone the metering statute.


31 Id. at 10.

32 Id. at 10 and 13.

33 Id. at 10.

34 Id. at 10 and 13.


RCW 90.03.470.


RCW 90.03.470, Findings 1993.


Water Conservancy Boards were authorized by the Legislature in 1997 to assist Ecology with the backlog of transfer and change applications. They are county- or locally-appointed boards of at least three individuals authorized to make preliminary determinations on water right transfers and changes. Ecology has 45 days to affirm, modify, or reverse these Boards’ decisions. (RCW 90.80.055 or .070).

In 2000, the Legislature authorized a cost reimbursement process, whereby water right applicants can pay to have their applications expedited. They must pay the cost of processing their own application, as well as all other pending applications from the same source of water filed before theirs. RCW 90.03.265.

Conservancy Boards are authorized to charge fees to process water changes and transfers. Charges vary from $250 to $1,450; most are between $400 and $650 per application. RCW 90.80.060.


Id.


Correspondence from Tacoma Water to CELP, dated August 18, 2003.

Correspondence from Seattle Public Utilities to CELP, dated August 23, 2003.

Correspondence from Roza Irrigation District to CELP, dated March 7, 2003.

Correspondence from Sunnyside Valley Irrigation District to CELP dated March 10, 2003.

Minnesota Statutes, Section 103G.271, subdivision .6

ARS 45-611.

ARS 45-611, 612.

ARS 45-612, 45-614 and ARS 45-611 subsection C.

ARS 45-133.

ARS 45-133.

ORS 536.050(1)(a).
ORS 536.050(1)(b).
ORS 536.050(5).
Idaho Code § 42-221(A).
Idaho Statute 42-221(B)-(L).
Idaho Statute 42-221(N).
California Code of Regulations 23.3.5 Section 1062.
Id.
Id.
California Code of Regulations 23.3.5 Section 1066.
See, RCW 90.16.050.
Id.
Id.
Id.
Id.
Id.
Id.
Letter dated 1/28/04 from Anne Solwick, Project Counsel to the Washington Department of Revenue, to Representatives Kelli Linville and Sam Hunt, regarding a water right fee proposed in House Bill 2393.
CELP acknowledges that even though agricultural water use represents 92% of the total water used in Washington, (see FN #1, supra) there is a significant difference in the proposed rates to be assessed from agricultural water users and other water users. However, we believe it is currently not politically feasible to institute a more equitable fee structure.
Id. at 2 & 3.
Look for “Water Is Worth It” on the web at www.celp.org/waterisworthit.html

CELP extends a generous Thank You to the Mountaineers Foundation and the Washington Foundation for the Environment for the financial support that made this report possible.

2400 N. 45th Street Suite 101 Seattle, WA 98103
Website: www.celp.org (206) 223-8454 (206)223-8464 fax

This report was designed and edited by volunteer Carrie Salters.