



Drinking Water State Revolving Fund



Annual DWSRF Performance Report
State Fiscal Year 2006

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Office of Water and Watersheds
EPA Region 10
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Introduction

The following is a summary of the Drinking Water State Revolving Fund (DWSRF) Program established by the Safe Drinking Water Act (SDWA) Amendments of 1996. It describes the use of appropriated funds by the Region 10 DWSRF program through June 30, 2006.

This report represents the best available information from grant applications, EPA and state reporting systems, discussions with DWSRF personnel, and material excerpted from DWSRF annual reports and state drinking water program newsletters.

Table I: Key Players in Implementation of Region 10 DWSRF Program			
State	Implementing Organization(s)	State Contacts	EPA Contacts
Alaska	Department of Environmental Conservation (ADEC)	Mike Lewis	Rick Green Project Officer
Idaho	Department of Environmental Quality (IDEQ)	Tim Wendland	Rick Green Project Officer
Oregon	Department of Human Services, Drinking Water Program	Roberto Colon-Reyes	Bill Chamberlain Project Officer
	Oregon Economic and Community Development Department (OECDD)	Tom Nelson	
Washington	Department of Health (DOH)	Kristin Bettridge Aleceia Tilley	Margo Partridge Project Officer
	Department of Community, Trade and Economic Development Department (CTED)	Terry Davis	
Regional Office	Office of Water, Drinking Water Unit	Rick Green DWSRF Coordinator	

The success of the DWSRF program in Region 10 depends largely on the efforts of our state partners. We recognize the importance of a healthy partnership with our state partners in carrying out the important mission of helping to ensure the provision of safe drinking water. Since the DWSRF program was introduced in Region 10, members of the EPA Region 10 Drinking Water Unit (DWU) and the DWSRF staff in the four Region 10 states have worked collaboratively to implement the program. In the table above are a few of the key players in this ongoing effort.

Through State Fiscal Year 2006 this team of state and Federal employees has collaborated to provide more than \$497 million in low interest loans to communities for drinking water infrastructure improvements. These loans help community water systems return to, or maintain compliance with drinking water standards. In addition there are many other employees at the local, state, and Region 10 level that help implement various programs funded by the DWSRF Set-Asides. Their efforts have resulted in more than \$78 million in expenditures for set-aside funded activities since program inception.

Background

The Safe Drinking Water Act (SDWA) amendments of 1996 established the Drinking Water State Revolving Fund (DWSRF) program. The DWSRF was designed to assist public water systems with financing the infrastructure costs of achieving or maintaining compliance with SDWA requirements, and to promote public health objectives of the SDWA. The DWSRF is patterned after the highly successful CWSRF program, which, under the Clean Water Act has provided more than \$59 billion in financing nationwide since 1988 for wastewater infrastructure needs. The DWSRF program differs dramatically from the CWSRF in that it allows up to 31% of each capitalization grant to be set aside for State drinking water programs, including Public Water System Supervision (PWSS), source water protection, capacity development, operator certification, and small system technical assistance. The remainder of each grant (as much as 96%, or as little as 69%) is used for drinking water infrastructure loans. Since program inception in 1997 the DWSRF program has provided more than \$11.5 billion nationwide in loans for drinking water infrastructure.

Congress intended that the DWSRF program be fundamentally a program of the States. Therefore, it is our philosophy to give the four Region 10 states as much flexibility as possible to decide program design, and to direct funding toward their most important public health protection needs. This report shows some of the accomplishments made by the Region 10 DWSRF program during State Fiscal Year (SFY) 2006.

Table II: Summary Status of Region 10 DWSRF Program

State/FFY	Grant Date	Grant Amount	Set-Asides Reserved				Set-Aside Totals
			Admin. (4% max.)	Tech. Asst. (2% max.)	Prog Mgmt (10% Max)	Local Asst. (15% max.)	
Alaska DWSRF							
AK/97	09/29/97	\$24,138,000	\$1,072,800	\$355,000	\$0	\$59,646	\$1,487,446
AK/98	09/16/98	\$10,022,300	\$293,612	\$0	\$0	\$2,682,000	\$2,975,612
AK/99	09/03/99	\$7,463,800	\$298,552	\$0	\$0	\$0	\$298,552
AK/00	08/07/00	\$7,757,000	\$310,280	\$0	\$0	\$0	\$310,280
AK/01	09/24/01	\$7,789,100	\$311,564	\$0	\$0	\$0	\$311,564
AK/02	09/08/02	\$8,052,500	\$322,100	\$0	\$0	\$0	\$322,100
AK/03	09/04/03	\$8,004,100	\$320,164	\$131,500	\$0	\$0	\$451,664
AK/04	06/06/05	\$8,303,100	\$259,200	\$104,319	\$0	\$475,151	\$838,670
AK/05	03/01/06	\$8,285,500	\$339,420	\$97,872	\$300,000	\$637,133	\$1,374,425
AK Totals		\$89,815,400	\$3,527,692	\$688,691	\$300,000	\$3,853,930	\$8,370,313
Idaho DWSRF							
ID/97	09/22/97	\$14,157,800	\$566,312	\$283,156	\$0	\$1,557,358	\$2,406,826
ID/98	08/04/98	\$7,121,300	\$284,852	\$142,426	\$106,713	\$712,130	\$1,246,121
ID/99	08/03/99	\$7,463,800	\$298,552	\$0	\$746,380	\$746,380	\$1,791,312
ID/00	08/22/00	\$7,757,000	\$310,280	\$155,140	\$775,700	\$1,163,550	\$2,404,670
ID/01	09/01/01	\$7,789,100	\$311,564	\$155,782	\$778,910	\$1,168,365	\$2,414,621
ID/02	09/01/02	\$8,052,500	\$322,100	\$161,050	\$805,250	\$1,207,875	\$2,496,275
ID/03	09/01/03	\$8,004,100	\$320,164	\$160,082	\$800,410	\$1,200,615	\$2,481,271
ID/04	09/01/04	\$8,303,100	\$332,124	\$166,062	\$830,310	\$1,245,465	\$2,573,961
ID/05	09/27/05	\$2,568,505	\$331,420	\$165,710	\$828,550	\$1,242,825	\$2,568,505
ID Totals		\$68,648,700	\$3,077,368	\$1,389,408	\$5,672,223	\$10,244,563	\$20,383,562
Oregon DWSRF							
OR/97	06/19/98	\$18,920,500	\$626,381	\$276,262	\$180,000	\$2,081,326	\$3,163,969
OR/98	01/06/99	\$10,567,800	\$422,712	\$0	\$272,230	\$266,421	\$961,363
OR/99	08/03/99	\$11,076,100	\$443,044	\$0	\$140,198	\$366,097	\$949,339
OR/00	04/05/00	\$11,511,200	\$460,448	\$99	\$611,600	\$1,047,204	\$2,119,351
OR/01	01/02/01	\$11,558,800	\$462,352	\$231,176	\$611,600	\$1,005,747	\$2,310,875
OR/02	08/09/02	\$14,148,900	\$565,956	\$282,978	\$715,068	\$996,873	\$2,560,875
OR/03	07/02/03	\$14,063,800	\$562,552	\$281,276	\$715,068	\$1,325,653	\$2,884,549
OR/04	09/09/04	\$14,559,200	\$587,040	\$293,520	\$479,464	\$1,229,625	\$2,589,649
OR/05	08/06/05	\$14,558,300	\$587,040	\$293,520	\$479,464	\$1,229,625	\$2,589,649
OR/06	06/01/06	\$12,033,800	\$508,413	\$263,886	\$711,714	\$1,209,002	\$2,693,015
OR Totals		\$132,998,400	\$5,225,938	\$1,922,717	\$4,916,406	\$10,757,573	\$22,822,634
Washington DWSRF							
WA/97	05/12/98	\$31,145,900	\$1,245,836	\$622,918	\$3,114,590	\$1,724,295	\$6,707,639
WA/98	04/12/99	\$19,169,100	\$766,764	\$383,382	\$1,916,910	\$500,000	\$3,567,056
WA/99	08/03/99	\$20,091,100	\$803,644	\$401,822	\$2,009,110	\$2,271,100	\$5,485,676
WA/00	09/15/00	\$20,880,400	\$835,216	\$417,608	\$2,088,040	\$3,132,060	\$6,472,924
WA/01	01/23/01	\$20,966,800	\$834,559	\$417,279	\$2,086,397	\$3,129,595	\$6,467,830
WA/02	02/07/03	\$19,872,000	\$794,880	\$397,440	\$1,987,200	\$2,980,800	\$6,160,320
WA/03	02/04/04	\$19,752,600	\$790,104	\$395,052	\$1,975,260	\$2,962,890	\$6,123,306
WA/04	12/02/04	\$20,490,500	\$819,620	\$409,810	\$2,049,050	\$3,073,575	\$6,352,055
WA/05	03/26/06	\$20,447,100	\$817,884	\$408,942	\$2,044,710	\$3,067,065	\$6,338,601
WA Totals		\$192,815,500	\$7,708,507	\$3,854,253	\$19,271,267	\$22,841,380	\$53,675,407
Region 10 Totals		\$484,278,000	\$19,539,505	\$7,855,069	\$30,159,896	\$47,697,446	\$105,251,916

Region 10 DWSRF Program Summary

Through the end of State Fiscal Year (SFY) 2006, more than \$484 million in Federal funds have been provided to Region 10 states for the DWSRF program. Using these funds as well as state match funds and repayments, Region 10 states have offered \$497 million in loans for public water systems serving a total population of just over 6.6 million. In addition, set-aside funds from these grants have been used by Region 10 states to augment existing state drinking water programs to ensure that all customers of public water systems in Region 10 continue to receive clean and safe drinking water. Table II on the preceding page shows the funding by state, as well as the specific breakdowns on how much of each capitalization grant has been reserved for set aside usage. Chart 1 below shows the total grant funds awarded per state.

Chart 1: Region 10 DWSRF Cap Grants Awarded through SFY06

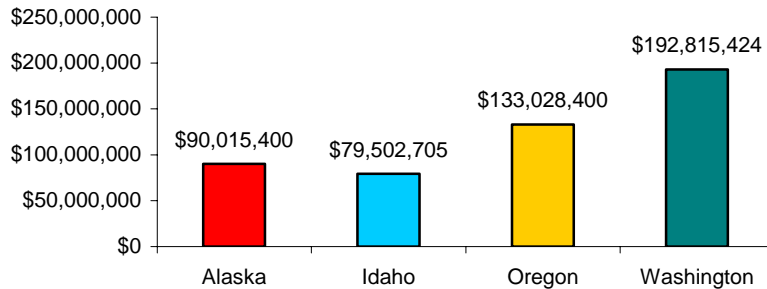
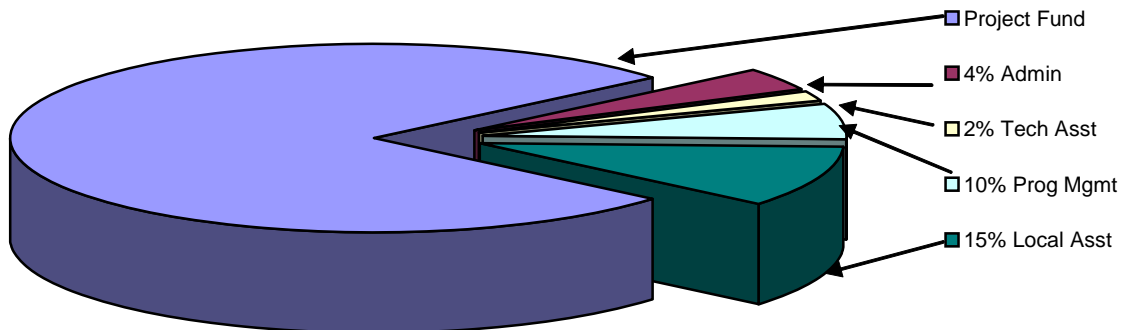


Chart 2: Region 10 DWSRF Distribution by Funding Type



Project Loan Fund

Of the \$495 million in DWSRF grants awarded to states in Region 10 to date, \$385 million (77%) has been placed in the four states' Project Loan Funds for use as

drinking water infrastructure loans (see Chart 2 above). As shown in the two charts below, with these funds plus their own matching funds, through SFY06 Region 10 states have signed 437 loans for projects totaling more than \$497 million. The total population served by public water systems receiving these loans is 6.6 million.

Chart 3: Region 10 DWSRF # of Loans by State through SFY 2006

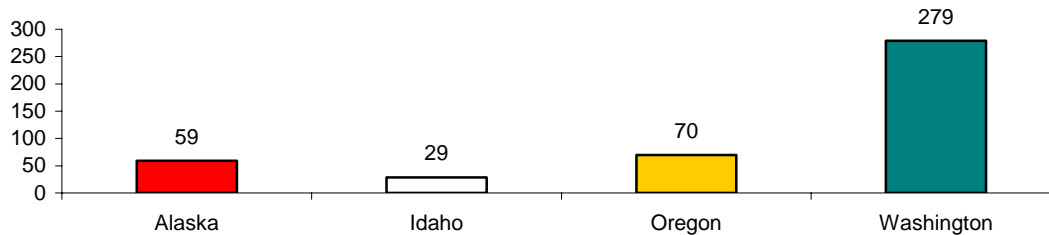
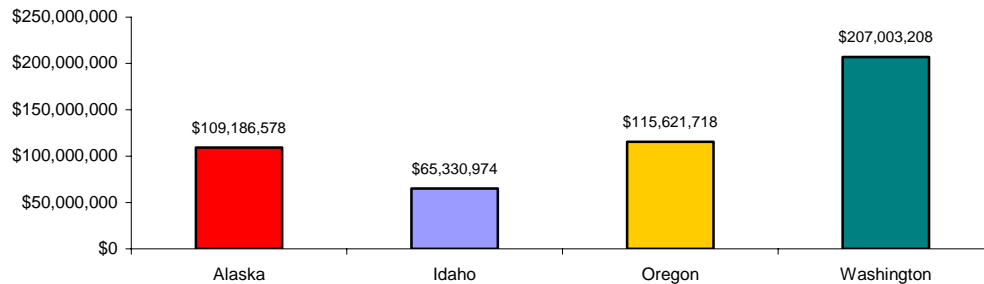


Chart 4: Region 10 DWSRF \$ Amount of Loans by State through SFY 2006



Types of Eligible Projects

The DWSRF can be used to provide loan funding for the following types of projects:

- Planning and design
- Purchase of water systems
- Restructuring / Consolidation
- Land acquisition
- Treatment
- Transmission & distribution
- Source improvements
- Storage
- Security measures
- Water conservation & efficiency

Each project is ranked by criteria developed by the state to determine priority order of funding. Those projects offering the greatest public health benefit receive the highest ranking.

Assistance to Achieve Compliance with Drinking Water Regulations

Much of what the DWSRF program funds can be best defined as preventive measures. For example, replacing transmission lines or adding storage capacity can prevent waterborne illness from occurring, before a community has to resort to an emergency fix, or issue a boil order due to contamination. However, in some cases DWSRF projects directly serve high health risk systems and result in the system returning to compliance with one or more of the SDWA rules. Starting in SFY 2005, EPA and the states began capturing information that shows DWSRF compliance assistance for three categories, (a) helping non-compliant systems achieve compliance, (b) helping compliant systems maintain compliance, and (c) helping compliant systems meet future drinking water requirements.

Below are several charts illustrating the Region 10 DWSRF program's achievements in these categories through SFY 2006. Through this time period, Region 10 states have signed a total of 213 loans in the amount of \$303 million serving a population of approximately 1.1 million for all compliance purposes. The dollar amount of DWSRF compliance assistance represents 61% of the total loan volume for the Region. Nationally the DWSRF program has provided approximately \$8.1 billion for all system compliance purposes, which is 70% of the total loan volume.

Chart 5a: Cumulative DWSRF Loans Assisting Non-Compliant Systems Achieve Compliance (\$)

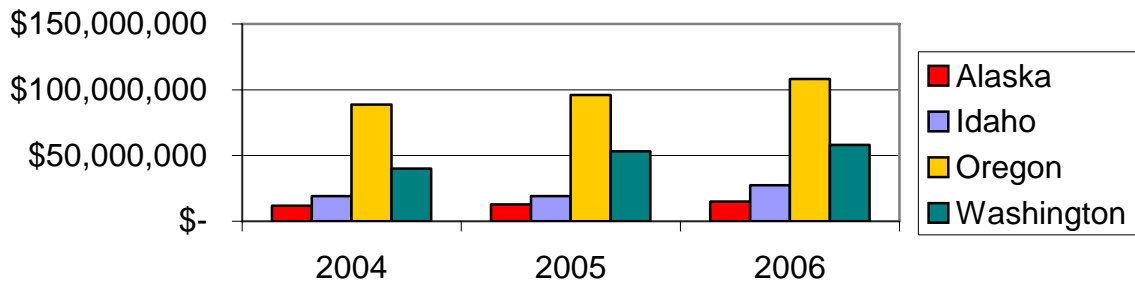


Chart 5b: Cumulative DWSRF Loans Assisting Non-Compliant Systems Achieve Compliance (#)

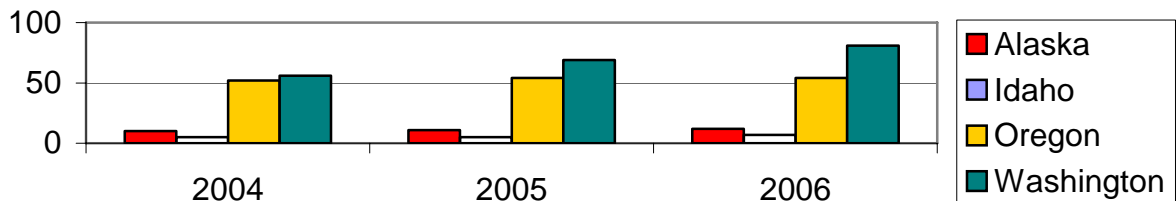


Chart 5c: Cumulative DWSRF Loans Assisting Compliant Systems Maintain Compliance (\$)

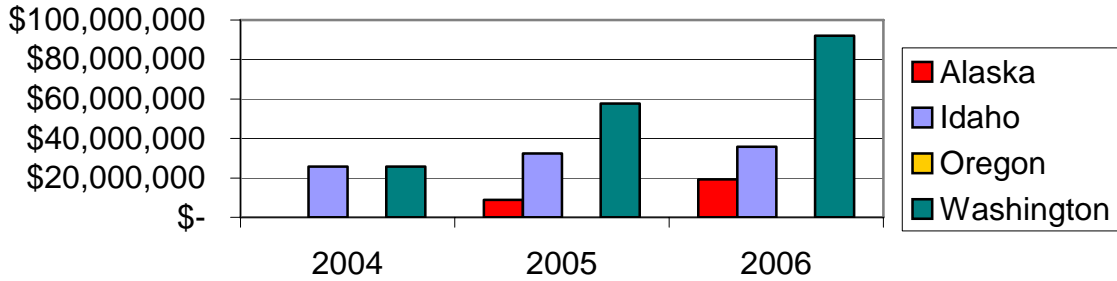


Chart 5d: Cumulative DWSRF Loans Assisting Compliant Systems Maintain Compliance (#)

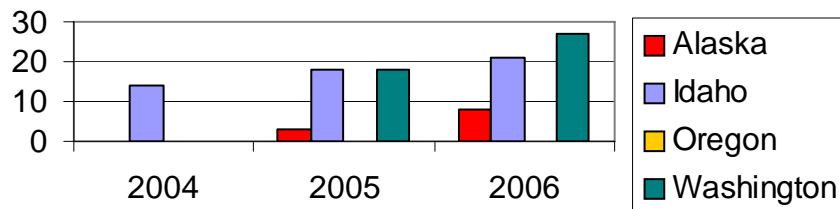


Chart 5e: Cumulative DWSRF Loans Assisting Compliant Systems Meet Future Requirements (\$)

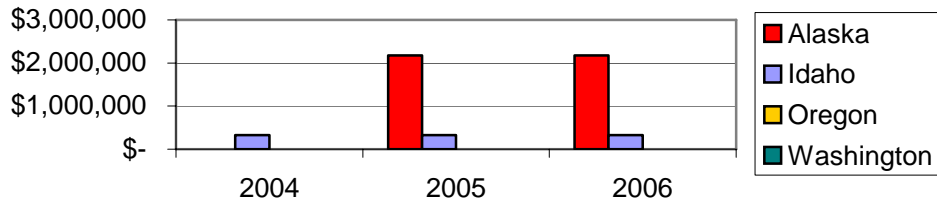
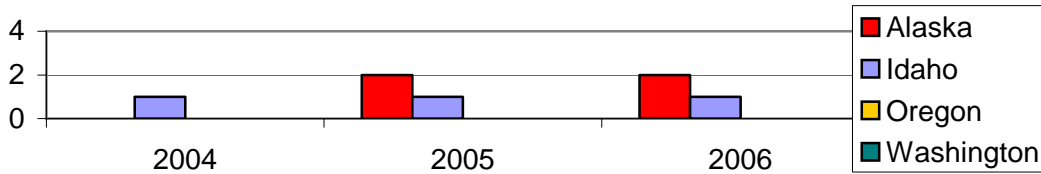


Chart 5f: Cumulative DWSRF Loans Assisting Compliant Systems Meeting Future Requirements (#)



Loans to Small Systems

One of the primary purposes of the enabling legislation for the DWSRF program was to make affordable infrastructure funding available to the small systems likely to be hardest hit by the cost of complying with SDWA requirements. Each state is required to provide a minimum of 15% in loan funding each year to such systems. Charts 6 and 7 show the results for each state in providing this type of funding. To date, most of the funding in each state (a combined 68% for the Region) has gone to systems serving a population under 10,000.

Chart 6: Region 10 DWSRF # of Loans for Small Systems

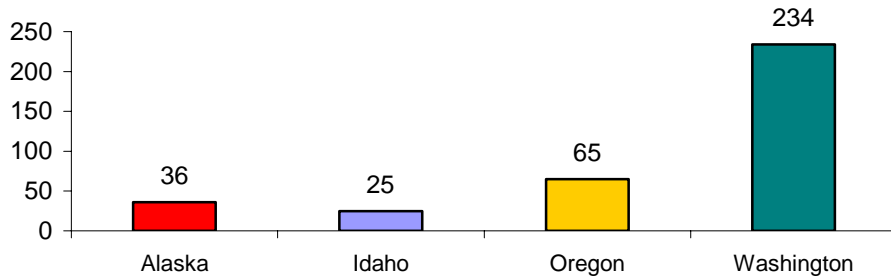
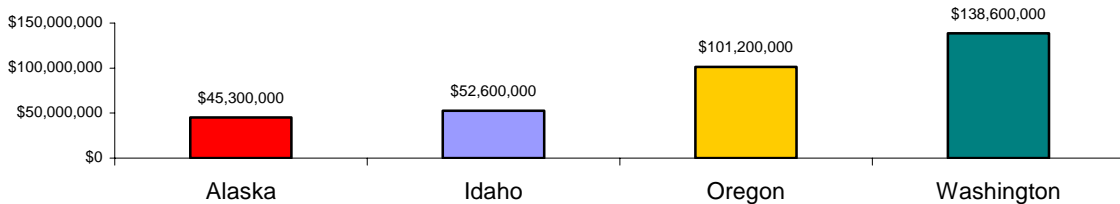


Chart 7: Region 10 DWSRF \$ in Loans for Small Systems



Assistance to Private Systems

Another objective of the DWSRF is to provide funding for privately owned public water systems. The two charts which follow illustrate the success that some states in the Region, in particular Washington, are having in providing low interest loans to privately owned drinking water systems. Nationally, and in this Region as well, some states had previously prohibited funding privately owned water systems. However, through SFY2006 the four Region 10 states had signed 120 loans with privately owned water systems in the amount of \$56 million.

Chart 8: Region 10 DWSRF # of Loans for Private Systems

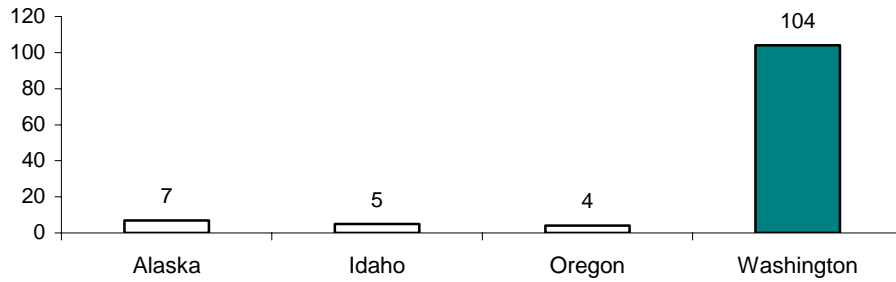
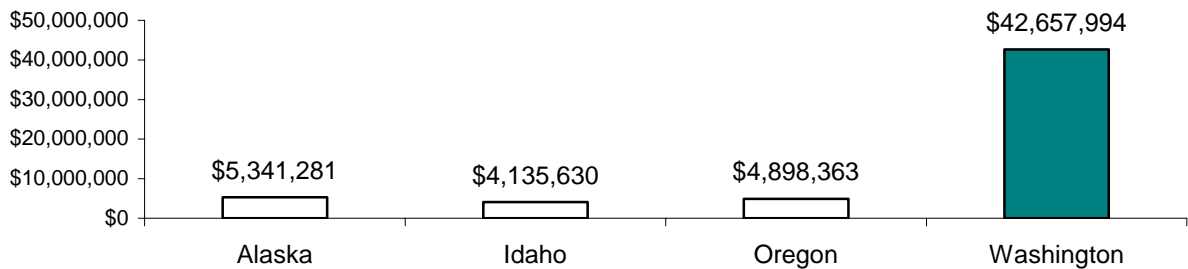


Chart 9: Region 10 DWSRF \$ Amount Loans for Private Systems

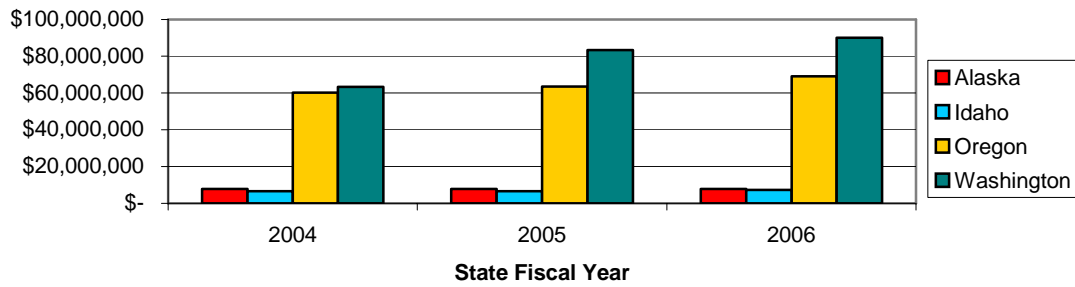


Assistance to Disadvantaged Systems

Another very important objective of the DWSRF is to provide funding to public water systems that cannot afford standard DWSRF financing, much less conventional financing. For such systems, the provisions of the Drinking Water State Revolving Fund allow for interest rates as low as 0%, loan terms up to 30 years, and forgiveness of some of the loan principal. Each state determines its own disadvantaged assistance program, generally using criteria similar to that employed by other Federal assistance programs. The following charts illustrate the success that Region 10 states have experienced in providing this sort of funding.

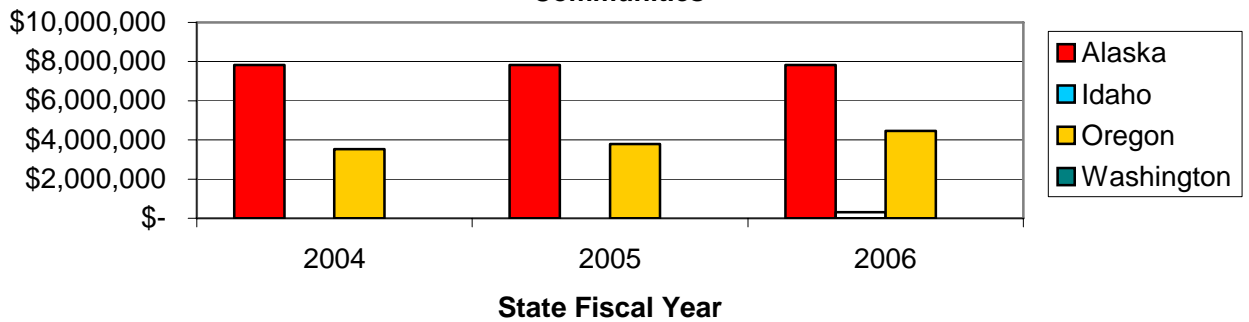
As seen in the chart below, every state in Region 10 has now provided at least some form of disadvantaged assistance.

Chart 10a: Cumulative Assistance to Disadvantaged Communities



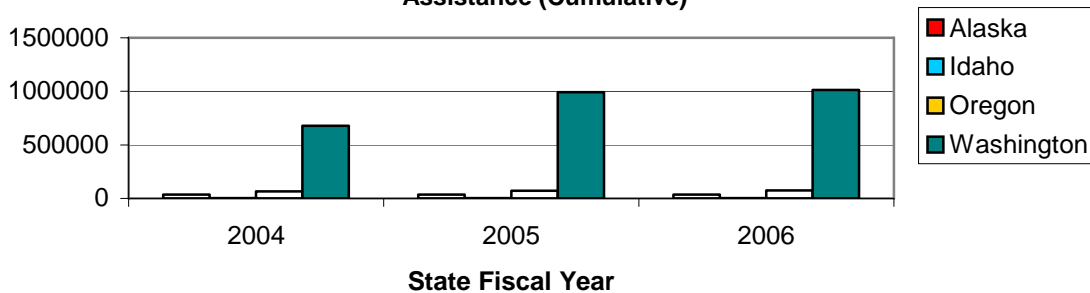
In Chart 10b below, one can see that three of the four states in Region 10 have provided principal forgiveness as part of loans. In the first year of the program Alaska provided a large amount of this type of financing, but nothing since then. Oregon has provided small amounts of principal forgiveness each year beginning in SFY 1999. During SFY 2006 Idaho provided this type of assistance for the first time. At this time Washington does provide principal forgiveness.

Chart 10b: Cumulative Principal Forgiveness Provided to Disadvantaged Communities



As can be seen in Chart 10c below, Washington, while not using principal forgiveness, has served by far the largest population with disadvantaged assistance. The total population served to date with this type of assistance in Region 10 is 1,128,535.

Chart 10c: Population Served in Disadvantaged Communities Receiving Assistance (Cumulative)



Disadvantaged Assistance Compared to Congressional Earmarks

Frequently communities will bypass the DWSRF program and go to their local member of Congress to request a special appropriation grant or earmark. While this is a legitimate funding source, the following table shows that this funding mechanism, while a “grant” program and not a revolving loan fund, may not always come with the lowest cost.

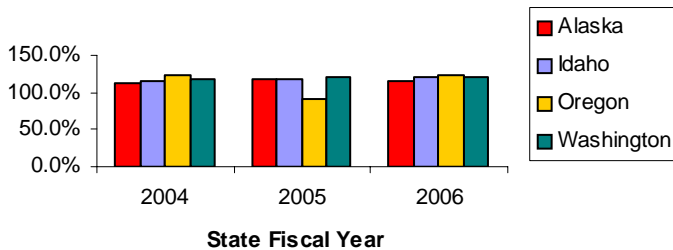
In this example, a small financially challenged public water system in Idaho with 300 service connections needs to borrow \$500,000 to finance a drinking water infrastructure project to comply with SDWA. The community is searching for funding and is trying to decide if they should apply for an earmark for 55% of the project costs, or a DWSRF disadvantaged assistance loan for 100% of the project costs. As scenario #1 in the table below shows, the cost would actually be **higher** to receive a congressional earmark, than it would be to receive a DWSRF loan with disadvantaged assistance. That is because up to half of the disadvantaged assistance loan (shown in scenario #2) could be forgiven, while the other half could be offered at 0% interest for up to 30 years. Even if this community does not qualify for disadvantaged assistance, they could reduce the cost of borrowing for the match of a special appropriation grant by using a DWSRF loan (scenario #3).

Table III: Comparison Between Earmark and DWSRF Disadvantaged Assistance Loan		
Scenario #1	Federal funds	Match required
Earmark	\$ 275,000	\$ 225,000
Terms of assistance: each earmark grant requires a 45% local match. In SFY 2006, if this match had been borrowed from the private sector rate would have been approximately 4.3%		
At these terms the debt service payment for each of the 300 ratepayers would be about \$56 per year for 20 years		
Scenario #2	Federal funds-loan	Federal funds-forgiven
DWSRF disadvantaged loan	\$ 250,000	\$ 250,000
Terms of assistance: for a disadvantaged loan, up to 50% of the loan can be forgiven. Thus in this case the community would only have to repay half of the loan amount. The remainder could be repaid for a term as long as 30 years at 0% interest.		
At these terms the debt service payment for each of the 300 ratepayers would be \$28 per year for 30 years		
Scenario #3	Earmark funds	DWSRF funds for match
Earmark plus DWSRF funds	\$ 275,000	\$ 225,000
Terms of assistance: for a conventional DWSRF loan to pay the 45% match for an earmark grant, the terms would have been 20 years at 2%		
At these terms the debt service payment for each of the 300 ratepayers would be \$45 per year for 20 years		

Financial Measures

The DWSRF uses a set of financial and programmatic measures to determine progress. These measures are (a) Return on Federal Investment, (b) Assistance Provided as a % of Funds Available [Fund Utilization Rate], (c) Loan Disbursements as a % of Assistance Provided, (d) Net Return/(Loss) after Repaying Match Bonds and Forgiving Principal, (e) Net Return on Contributed Capital, and (f) Set-Aside Spending Rate. The results for each measure, and a brief discussion can be found in the section that follows.

Chart 11a: Return on Federal Investment



The Return on Federal Investment measure is calculated by dividing the funds disbursed by the states for DWSRF loans by the Federal cash draws to reimburse states for the loan disbursements. In general, the ROFI should be around 120% because states must provide a 20 cent match for each one dollar of Federal investment. As shown in the chart on the left, through this period three of the four states met this measure. To put the concept in a more real sense, this measure shows how much more the DWSRF has purchased based on each Federal dollar “invested.”

The next measure shown in the chart on the right (and also known as the Fund Utilization Rate) is included in EPA’s Strategic Plan, Implementation of Drinking Water Standards, Goal 2, Measure #5. It is calculated by dividing the total dollar amount of DWSRF loans by the total amount of funds available for loans. The Region 10 DWSRF exceeded the national target for SFY 2006 with a very respectable return of 92%, which lead the nation. This measure demonstrates each state’s efficiency at lending the money that is available for loans. Depending on how aggressive a state’s cash flow strategy is, this measure can exceed 100%. For SFY 2006 no Region 10 states had a ratio exceeding 100%. But two of the four states (Alaska and Washington) exceeded 90%.

Chart 11b: Assistance Provided as a % of Funds Available

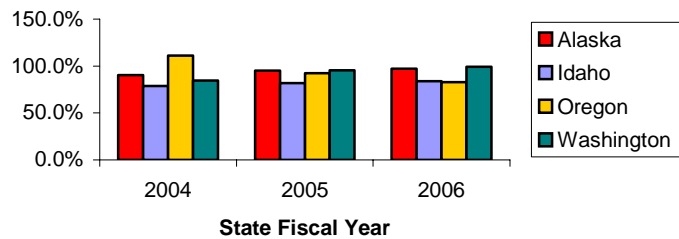
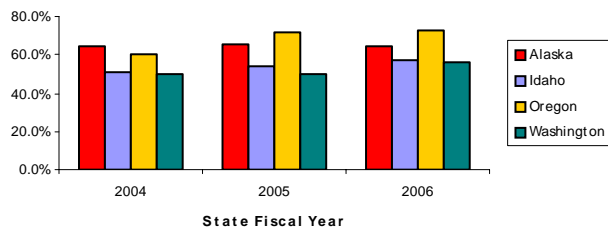


Chart 11c: Loan Disbursements as a % of Assistance Provided



The next measure, illustrated in Chart 11c, shows the speed at which funds from signed loans are disbursed to systems. What this actually represents is the pace of DWSRF project construction because loan disbursements follow construction activities. It is calculated by dividing the total loan disbursements by the total dollar amount of signed loans. Using Oregon as an example, for SFY2006, the data indicates a ratio of 73%. This means that Oregon had disbursed 73 cents of every loan dollar of signed DWSRF loan funds to borrowers.

The measure shown in Chart 11d demonstrates how state DWSRF programs are maintaining their invested or contributed capital. A value that is positive indicates that fund revenues are at least meeting fund expenses. For example, the positive outlier state, Washington, shows a positive net return for SFY2006 of more than \$12.8 million. This indicates the state's DWSRF program is generating that much in additional funds for use as loans. Another outlier state, Alaska, shows a negative value of more than \$6.8 million for the same time period. This may appear unattractive in a strictly financial/business sense. However, it simply reflects the programmatic decision by that state's DWSRF program to provide a large amount of principal forgiveness (i.e., grants) early in the program to accommodate affordability issues.

Chart 11d: Net Return/(Loss) after Repaying Match Bonds and Forgiving Principal

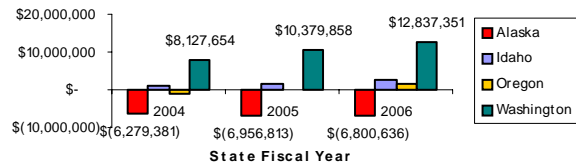


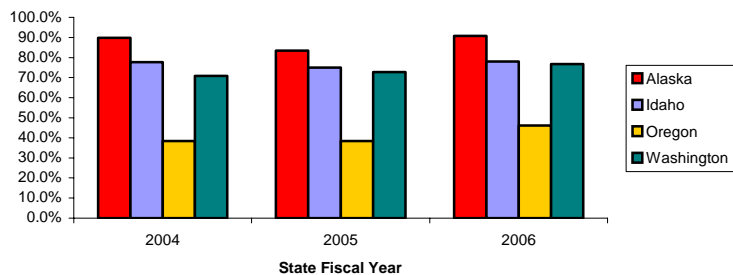
Chart 11e: Net Return on Contributed Capital



Similar to the previous measure, this measure (Chart 11e) compares the net return of the DWSRF to the dollar amount of contributed funds. It is calculated by dividing the net return by total contributed capital. In SFY 2006 Washington's net return was 9.8%. During the same period Alaska showed a negative value, due again to the principal forgiveness decision.

The final measure (Chart 11f) shows how quickly the set-aside funds reserved by each state are being utilized. It is calculated by dividing the total amount of set-asides awarded by the total amount of set-asides expended. For example, in SFY 2006, Alaska's set-aside spending rate is 91%. This indicates that for every set-aside dollar awarded to that point, Alaska had spent 91 cents.

Chart 11f: Set-Aside Spending Rate



Region 10 DWSRF Loan Program Highlights

Alaska

Since program inception the ADWF has issued a total of 59 loans to assist Alaska communities with providing clean and safe drinking water. Following are descriptions and photos of nine of these projects funded in SFY 2006. For these projects the ADWF provided a total of \$15 million in below-market rate loan funding. As a result of the grant subsidies offered by the ADWF, the 357,069 citizens served by public water systems in these communities will save a total of \$3.1 million in reduced finance charges.

College Utilities Corporation (Fairbanks), Sherwood Forest Phase I

On February 8, 2006 College Utilities Corporation signed a loan increase for \$83,304 for a new total loan amount of \$1,023,971 to install nearly 14,000 feet of 8-inch water main. This project is necessary to provide safe potable water to an area of this community currently served by private wells with high arsenic levels. The loan terms, 2.5% for 20 years, will save the ratepayers in this community more than \$213,020 in finance charges.

College Utilities Corporation (Fairbanks), Broadmoor Addition Water Mains Project

On May 11, 2006 College Utilities Corporation signed a loan for \$708,582 to install nearly 9,000 feet of ductile iron pipe in the Broadmoor area of Fairbanks. The project was needed to provide 71 residential lots (42 of which are served by private wells) with a high quality water supply. Because the water table is high in this area, private wells are susceptible to contamination from onsite septic systems and ground water runoff. The terms of the loan, 20 years at 2.5%, will save ratepayers in this community approximately \$147,409 in finance charges.

Municipality of Anchorage, Girdwood Water Improvements, Phase I, I, and III

On June 12, 2006 the Municipality of Anchorage signed a loan increase for \$500,000, for a new total loan amount of \$2,135,300 for a project to design, rehabilitate, and improve existing public water system and distribution facilities for the Girdwood Valley. A chief reason for the project was the close proximity of the water system to a landfill. The terms of the loan, 20 years at 2.5%, will save ratepayers approximately \$444,215 in finance charges.

Municipality of Anchorage, Sullivan/Ben Boeke Water Project

On June 27, 2006 the Municipality of Anchorage signed a loan for \$4 million for a project to replace with 10 inch High Density Polyethylene (HDPE) pipe approximately 1,000 feet of 6-inch cast iron, and 1,600 feet of 8-inch ductile iron pipe within the Chester Creek Sports Complex area. The reason for the project is because the existing pipe is corroded, which allows the potential for contamination of the public water supply. The terms of the loan, 20 years at 2.5%, will save Anchorage ratepayers approximately \$832,136 in finance charges.

City of Wasilla, Settlers Bay Mile 8 Tank Improvements

On July 29, 2005 the Mile 8 Utility, LLC signed a \$750,000 loan for a project to construct a 600,000 gallon water storage tank, install chlorination on a well, and construct back-up pumps for two wells to supply water for the Settlers Bay area near Wasilla. The loan was subsequently increased on October 18, 2005 by \$600,000 for a new loan total of \$1,350,000. The loan terms of 20 years at 2.5% interest will save ratepayers in this community approximately \$280,846 in finance charges. The project was needed to provide sufficient water capacity for this part of the community.

Municipality of Anchorage, Pressure Zone 411 Water Intertie Upgrade

On June 12, 2006 the Municipality of Anchorage signed a \$2 million loan for a project to connect an existing 10 million gallon reservoir with an existing water transmission main. The project when completed will allow the system to vary sources of water supplying the south and west parts of Anchorage, which will increase the flows and reliability in this lower pressure zone. The loan terms of 2.5% interest for 20 years will save ratepayers in Anchorage approximately \$416,068 in finance charges.



City of Palmer, SW Water Main Extension Project

On September 15, 2005 the City of Palmer signed a loan for \$1,150,000 to help finance the extension of public drinking water service to the 75 bed Matanuska Valley Medical Center and several area subdivisions. The project will entail construction of over 32,000 feet of water main, fire hydrants, and various valves and appurtenances. The loan was signed at the rate of 2.5% for 20 years, which will save ratepayers in this community \$162,682 in finance charges.

City of Ketchikan, Tongass Avenue Phase I Water Main Replacement Project



The City of Ketchikan signed a \$2.1 million loan on May 2, 2006 to replace 5,000 lineal feet of water main. The project is needed to replace pipes that have deteriorated and could allow the introduction of contaminants into the public water supply. The loan terms were 2.5% for 20 years, which will save ratepayers in this community more than \$436,000 in financing charges. Pictured on the left is a stretch of pipe prior to installation; below is the pipe fusing machine.



City of Sitka, Harbor Water Distribution System

On April 3, 2006, the City of Sitka signed a loan increase for \$580,000 (for a new loan total of \$1 million) to fund the repair and replacement of the existing water distribution system in Sitka Harbor. This project will replace water distribution lines that are failing. The loan terms (20 years at 2.5%) will save the community \$208,034 in finance charges.

Idaho

During SFY 2006 the Idaho DWSRF issued five loans for a total of \$11,016,000 to help Idahoan communities provide clean and safe drinking water. The reduced interest rates offered to these five projects will save ratepayers in these Idaho communities nearly \$2.1 million in finance charges over the life of the loans. Following are descriptions and photos of the projects funded in SFY 2006.

City of Bonners Ferry, Water System Improvements

The City of Bonners Ferry signed a loan for \$1,533,000 on March 7, 2006 to fund construction of a 500,000 gallon water storage tank, chlorine contact chamber, and distribution system improvements. The loan was signed at 3.25% for a 20 year term, which will save ratepayers \$210,000 in finance charges. The project was needed to address issues with water storage capacity, low pressure problems, and fire flow.

City of Burley, New Municipal Well Installation Project

The City of Burley signed a DWSRF loan for \$2,400,000 on September 6, 2005. These funds will be used to design and construct a new well, booster station and storage facility. The terms of this loan, 3.25% for 20 years, will save Burley ratepayers \$329,000 in finance charges over the life of the loan. The project was needed to address issues with insufficient system pressure.



City of Castleford, Water System Improvements and Arsenic Abatement

The City of Castleford signed a DWSRF disadvantaged assistance loan for \$606,000 on June 30, 2006. Because Castleford qualified for this type of assistance, the community received the special interest rate of 0%, an extended term of 30 years, and up to 50% of the loan principal is eligible to be forgiven. The loan funds, along with additional grant funds, will be used to install a new well and storage tank, rehabilitate water lines, and construct arsenic treatment facilities. The project is needed due to the new arsenic standard of 10 parts per billion, a need to also treat for nitrates and radiological elements, and low pressure in the entire system. Pictured at right (top) is the pilot test control system, and on the bottom shows three different arsenic treatment media being tested.



Central Shoshone County Water District, Wardner Tank Project and Enaville Well Improvements



In May 5, 2006, the Central Shoshone County Water District signed a DWSRF loan for \$6 million for replacement of pumps and piping, construction of the Wardner tank project, metering and leak detection, and construction of a water filtration plant at Enaville Well. The filtration system was required to comply with the Surface Water Treatment Rule (SWTR), because the Enaville Well had been determined to be receiving Ground Water Under the Direct Influence (GWUDI) of surface water. Under the SWTR, water from such a source must be treated the same as surface water, and thus filtered. The filtration portion of the project received IDEQ's special rate of 2% for SDWA-required projects. The remainder of the project received the standard loan rate of 3.25%. The resultant blended rate of 2.56% for a term of 20 years, will save CSCWD ratepayers more than \$1.3 million in finance charges. Pictured on top left is a new pump; on bottom left is a new pump house.

City of Chubbuck, Rehabilitation of Storage Reservoir

The City of Chubbuck signed a DWSRF loan for \$510,000 in September 14, 2005. The terms of this loan, 3.25% for 20 years, will save ratepayers in this community approximately \$70,000 in finance charges. The loan will fund the rehab of an existing drinking water reservoir. An underwater inspection of this tank in 2002 revealed cracks that require repair.

Oregon



Through the end of SFY 2006 the Oregon SDWRLF has issued a total of 75 loans that help communities in Oregon provide clean and safe drinking water. Descriptions of eight of these projects, for which the Oregon SDWRLF provided a total of \$12.2 million in loan financing, can be found below. Because the interest rates charged for DWSRF loans are grant-subsidized, there is a substantial savings compared to financing at state market rates. For these loan projects savings of approximately \$4 million will be realized over the life of the loans.

Luckiamute Domestic Water Cooperative, Replace Water System main and Transmission Line (#S06004)

The Luckiamute Domestic Water Cooperative signed a loan for \$1,048,800 to finance a water main transmission line replacement. The medium/small system, located in Polk County, serves about 2600 people with 994 service connections. The project includes replacement of the main service line.

City of Depoe Bay, New 120,000 Storage Tank and SCADA system improvements (#S06005)

The City of Depoe Bay signed a loan for \$1,602,000 to finance construction of a new 120,000 gallon water storage tank and improvements to their SCADA system. This small system, located in Lincoln County, serves about 1,060 people with 800 service connections. The project includes building a new 120,000 gallon tank and SCADA improvements.

Dumbeck Domestic Water Supply District, District Water Line Replacement and Pump Station Upgrade (#S06001)

The Dumbeck Lane Water Supply District signed a loan for \$1,200,000 (with \$250,000 principal forgiveness) to finance a water transmission line replacement and pump station upgrade. This very small system, located in Benton County, serves about 175 people with 76 service connections. The project includes replacement of the main service line and pump station upgrades.

Bay Hills Water Association, Water Systems Improvements (#S06007)

The Bay Hills Water Association signed a loan for \$34,560 to finance improvements to its drinking water system. The small system, located in Newport, serves about 50 people with 20 service connections. The project includes developing a new well, chemical feed equipment, an aeration system, and raw water intake.

Buell Red Prairie Water District, Water Treatment Replacement Project (#S06003)

The Buell Red Prairie Water District, located in Sheridan, signed a loan for \$700,000 on June 20, 2006. The terms of the loan, 30 years at 1% with \$175,000 principal forgiveness, will save ratepayers in this community approximately \$212,701 in finance charges. The project includes replacement of the existing treatment plant with a new package plant, a new pump, and chlorine room, and a new building. The project was needed to replace an obsolete treatment plant, which was inadequate to process surface water, and was causing TTHM problems.

City of Creswell, Arsenic Removal and Miscellaneous Upgrades and Improvements (#S06004)

On June 2, 2006, the City of Creswell signed a loan for \$4 million for various water system improvements. The project will expand and improve the existing surface water treatment system, which treats water from the Coast Fork of the Willamette River. The existing intake will be expanded, a new storage tank will be built, and new transmission and distribution pipelines will be installed. In addition, arsenic removal equipment will be installed for the Creswell's two wells that contain arsenic ranging from 15 to 35 parts per billion. The terms of the loan were initially 20 years at 3.51%. However, shortly after the loan signing, a major employer in the community, Foster Farms, announced it was closing shop. This industrial customer accounted for 30% of the water system's revenues. As a result, the community applied for and received disadvantaged assistance terms of 30 years at 1%. Those terms will save ratepayers in this community approximately \$1.6 million in finance charges.

City of Gates, Water System Improvements (#S06022)

The City of Gates signed a loan for \$170,240 on September 15, 2006, to finance the design and construction of a membrane filtration system, booster pumps, a feed system, and water main replacement. The existing system was deteriorating, undersized, and was operating under a notice from DHS about noncompliance with LT1 ESWTR. The terms of the loan, 30 years at 1%, will save ratepayers about \$69,000 in finance charges.

City of Nehalem, Water System Improvements Project (#S06006)

On May 31, 2006, the City of Nehalem signed a loan for \$3.5 million for a project to replace aging and/or undersized water distribution lines. The project will also establish loops in the system, create two pressure zones due to geological elevation differences, and install or replace hydrants as needed. The terms of the loan, 1% for 30 years, will save ratepayers in this community about \$1.3 million in finance charges.

Washington



During SFY 2006 the Washington DWSRF issued 29 loans to help Washington communities provide clean and safe drinking water. Descriptions of nine projects (financed in the current period or earlier) can be found below. For these projects the Washington DWSRF provided a total of \$16.5 million in financing. Because the interest rates are grant-subsidized, the interest savings compared to financing at state market interest rate financing totaled approximately \$6 million, equivalent to 36% of the loan amount financed.

Forest Glen Water System, Lift Station Rehabilitation Project

In March 2005, the Forest Glen Water System signed a loan for \$135,069.32 for a lift station rehabilitation project. The project will include a new well and storage tank, installation of water meters and backflow prevention devices, and augmented monitoring equipment in the pump house. The project was required to address inadequate storage capacity, lack of a screen on the existing well, and lack of backflow devices. The low interest rate loan of 0.5% for this project will save the owners and operators of this very small system, serving only 20 residences, approximately \$60,000 in finance charges.

Dockton Water Association, Reservoir Piping Reconfiguration Project

The Dockton Water Association signed a loan for \$57,671 on August 11, 2005 for a reservoir piping reconfiguration project. This small water system on Vashon Island needed to construct this project because of problems with maintaining a proper chlorine residual. The project will add a separate inlet pipe and additional piping on the exterior wall of each finished water reservoir.

Stevens County PUD #1, Denison Estates Water System Acquisition and Improvements



The Stevens County PUD signed a loan for \$165,842 on October 31, 2006 to consolidate three Group B water systems into one Group A satellite system. The Group B water systems were all serving homeowner's associations near Deer Park, Washington, just north of Spokane. The loan was signed at 1.5% for 20 years. The loan will fund installation of transmission lines, as well as treatment of iron, manganese, and filtration for lead and copper.

Sunnyside, Water Source Development Project

The City of Sunnyside in Washington's Yakima County signed a loan for \$4,040,000 on August 31, 2005. The loan funds will finance a water source development project, including land acquisition, drilling two new wells, and installation of pumps, controls, valves and distribution main. The project was needed to provide safe drinking water for Sunnyside residents and increase system capacity for projected population estimates through 2023. The financing package offered to this community, 0.5% for 20 years, will save the ratepayers about \$1.7 million dollars over the life of the loan.

City of Kennewick, Ranney Well #5 Collector Project

On October 24, 2005, the City of Kennewick signed a loan in the amount of \$3,030,000 to construct a UV disinfection facility. The project was needed because the water source, Ranney Well #5, had been determined as Ground Water under the Direct Influence (GWUDI) of surface water. Once a system receives a GWUDI determination it is treated as if it were a surface water system, which typically means substantially more treatment than water from a ground water source. The City received a loan rate of 1.5% for 20 years, which will save Kennewick ratepayers approximately \$970,000 in finance charges.

City of Everett, Clear Well #2 Project

The City of Everett signed a loan in the amount of \$4,040,000 on June 30, 2006 to construct a second clear well. This project was needed to provide plant redundancy, reliability for filtered systems, and lower the residual amounts of disinfection byproducts. The loan terms will save Everett ratepayers approximately \$1.3 million in finance charges.

Aldergrove Water Association, Pumping and Storage Upgrades

On June 27, 2005, the Aldergrove Water Association, located in Ferndale, Washington, signed a loan increase for their existing project. The previous loan amount of \$199,980 was increased to a total loan amount of \$300,980. The loan terms, 1.5% for 20 years, will save ratepayers in this community about \$100,000 in finance charges. The project will include pumping and storage upgrades, replacement of a well pump, new storage, wellhead protection, and a standby chlorinator. The need for this project stems from inadequate storage, which negatively impacts the quantity and quality of water.

City of Carbonado, Water Treatment Improvements

The City of Carbonado, located near Enumclaw, Washington, signed a loan for \$309,514.50 on May 2, 2005. This loan will be used to pay for the design and construction of a new filtration and water treatment system to bring the community into compliance with the Surface Water Treatment Rule (SWTR). The system has been operating under a DOH compliance order for the SWTR violation. The loan was signed at the terms of 1.5% for 20 years, which will save Carbonado ratepayers approximately \$100,000 in finance charges.

Obstruction Island Club Inc., Desalinization/Reverse Osmosis Project

The Obstruction Island Club, near the community of Olga, in Washington's San Juan Islands, signed a DWSRF loan increase on November 7, 2006. The original loan amount of \$171,700 was increased to a total new loan amount of \$250,000. Signed at the rate of 1.5% for 20 years, this loan will save ratepayers in the community approximately \$80,000 in finance charges. The loan will fund installation of a desalinization and reverse osmosis filtration plant to treat the water system's ground water. Since 2000 the system had experienced six coliform violations.

City of Centralia, Water Distribution Extension Project

The City of Centralia signed a loan on June 27, 2005 in the amount of \$2,449,250. This loan will finance extension of distribution lines to areas currently served by private wells within the urban growth area. The project will allow residents to discontinue use of individual wells with unknown water qualities, and consolidate residences in an area

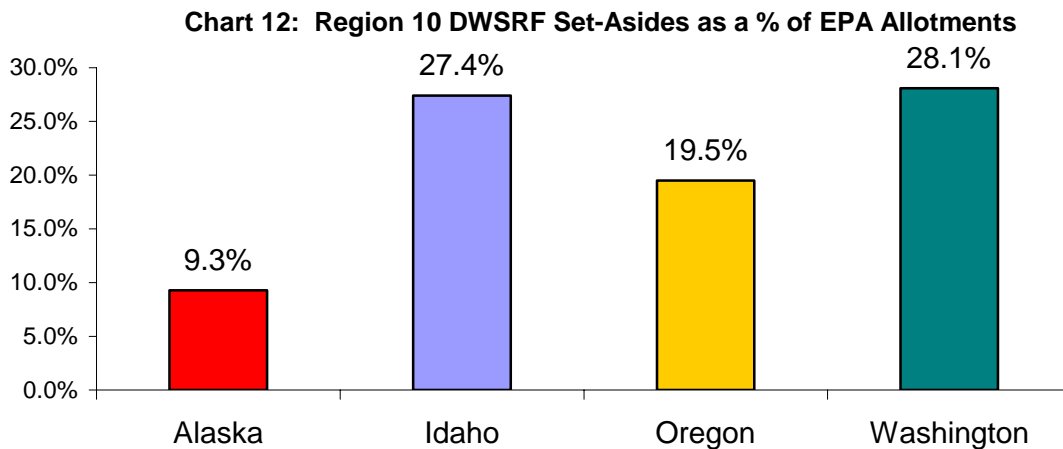
deemed a Critical Aquifer Area. The terms of the loan, 1% for 20 years, will save Centralia ratepayers about \$923,372 in finance charges.

DWSRF Set-Asides

As discussed briefly in the Introduction, the legislation enabling the DWSRF program allows states to “set aside” grant money at their discretion for specific targeted activities. The DWSRF set-asides are an important funding resource to help states meet SDWA requirements. Prior to the DWSRF program, Federal assistance to support state drinking water programs was provided primarily through Public Water System Supervision/Ground Water grants.

Now, however, in addition to the 4% set-aside for loan program administration, the DWSRF set-aside program offers a 2% set-aside for technical assistance to small systems, a 15% set-aside for wellhead/source water protection assistance and capacity development assistance to public water systems. In addition, there is a 10% set-aside which can be used to supplement the core drinking water program, as well as support the development and implementation of capacity development and operator certification programs.

Although as much as 31% of each capitalization grant can be reserved for set-aside activities, the trend nationwide has been for states to reserve approximately 16%. The average rate of reserving set-asides in Region 10 is approximately 22%. The chart below shows the cumulative percentage of set-asides reserved by each Region 10 state.



Funds not reserved for set-aside use are added to the DWSRF Project Fund and made available for loans. The set-asides fall into four broad categories, each of which is described in detail below:

Administration and Technical Assistance Set-Aside

A state may use up to 4% of its capitalization grant for administering the DWSRF program and providing technical assistance to public water systems. Such costs allowed under this set-aside include management of the DWSRF program, loan administration, development of an annual Intended Use Plan, priority project ranking, and grant application, separate independent financial audits, and public water system technical assistance. Table III below shows the funding activity under this set-aside through SFY 2006.

Table III: 4% Administrative Set-Aside					
State	Amount Eligible to be Reserved	Amount Reserved	% of Eligible Amount Reserved	Amount Expended	Available Balance
Alaska	\$ 3,600,616	\$ 3,592,492	100%	\$ 3,141,534	\$ 450,958
Idaho	\$ 3,180,108	\$ 3,077,368	97%	\$ 2,179,589	\$ 897,779
Oregon	\$ 5,321,136	\$ 4,717,525	89%	\$ 3,846,250	\$ 871,275
Washington	\$ 7,712,617	\$ 7,714,468	100%	\$ 6,433,969	\$ 1,280,499



Idaho DEQ's Brian Reed conducting an inspection of a DWSRF-financed drinking water facility under construction in Idaho.

Technical Assistance for Small Systems Set-Aside

A state may use up to 2% of its capitalization grant to provide technical assistance to small systems, defined as systems that serve less than 10,000 people. A state may use these funds to support a technical team, or may choose to contract for the technical assistance. Table IV shows the funding activity for this set-aside.

Table IV: 2% Technical Assistance for Small Systems Set-Aside					
State	Amount Eligible to be Reserved	Amount Reserved	% of Eligible Amount Reserved	Amount Expended	Available Balance
Alaska	\$ 1,800,308	\$ 688,691	38%	\$ 508,130	\$ 180,561
Idaho	\$ 1,590,054	\$ 1,326,124	83%	\$ 1,159,856	\$ 166,268
Oregon	\$ 2,660,568	\$ 1,665,311	63%	\$ 706,111	\$ 959,200
Washington	\$ 3,856,308	\$ 3,857,234	100%	\$ 2,852,051	\$ 1,005,183

State Program Management Set-Aside

Up to 10% of a capitalization grant can be used to supplement state program activities, such as administration of a PWSS program. Also eligible are such activities as development and implementation of a capacity development strategy and funding an operator certification program. It should be noted that this particular set-aside must be matched 1:1 with state funds. The other set-asides do not have a similar matching requirement. Table V below shows the dollar amount of activity under this set-aside.

Table V: 10% State Program Management Set-Aside					
State	Amount Eligible to be Reserved	Amount Reserved	% of Eligible Amount Reserved	Amount Expended	Available Balance
Alaska	\$ 9,001,540	\$ 353,000	4%	\$ 294,484	\$ 58,516
Idaho	\$ 7,950,271	\$ 5,672,223	71%	\$ 4,321,039	\$ 1,351,184
Oregon	\$ 13,302,840	\$ 4,199,692	32%	\$ 3,374,583	\$ 825,109
Washington	\$ 19,281,542	\$ 19,286,170	100%	\$ 16,138,161	\$ 3,148,009

Local Assistance Set-Aside

A maximum of 15% of the state's capitalization grant can be used to support such activities as: land acquisition for source water protection purposes; voluntary source water quality protection measures; delineation and assessment of source water protection areas; implementation of wellhead protection programs; and technical and financial assistance to public water systems for capacity development purposes. Table VI shows the financial activity that has occurred under this set-aside.

Table VI: 15% Local Assistance and Other State Programs Set-Aside					
State	Amount Eligible to be Reserved	Amount Reserved	% of Eligible Amount Reserved	Amount Expended	Available Balance
Alaska	\$ 13,502,310	\$ 3,726,997	28%	\$ 3,650,096	\$ 76,901
Idaho	\$ 11,925,406	\$ 10,244,563	86%	\$ 7,842,980	\$ 2,401,583
Oregon	\$ 19,954,260	\$ 10,408,267	52%	\$ 6,072,499	\$ 4,335,768
Washington	\$ 28,922,314	\$ 23,243,009	80%	\$ 16,059,443	\$ 7,183,566

Idaho has used a portion of the funding reserved for capacity development assistance from this set-aside to provide water systems with planning grants. Using this

source of funding communities can pay an engineer to produce a facility plan/engineering report that will show the best solution for their drinking water problems. In addition, both Idaho and Oregon are developing source water protection grant programs. Small grants offered by these programs will help systems implement priority recommendations made in their Source Water Assessments.

Program Future

The next few years for the Region 10 DWSRF program should prove to be interesting. In all four states now, project loan funds are revolving with interest payments, and loan repayments being added to the funds available to make new loans. The increased compliance costs of the many new drinking water rules under the SDWA will be driving more and more systems to seek the grant-subsidized, low interest financing available from the DWSRF. The grants that have gone out to the State and larger drinking water systems to conduct vulnerability assessments are also generating requests for security-related funding. And now that all Region 10 states have completed the assessment of drinking water sources, communities are seeking grant and loan funding from the DWSRF to protect sources of drinking water.

The following individuals contributed to the preparation of this report by providing information about, and/or submitting digital images of DWSRF-financed projects.	
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