

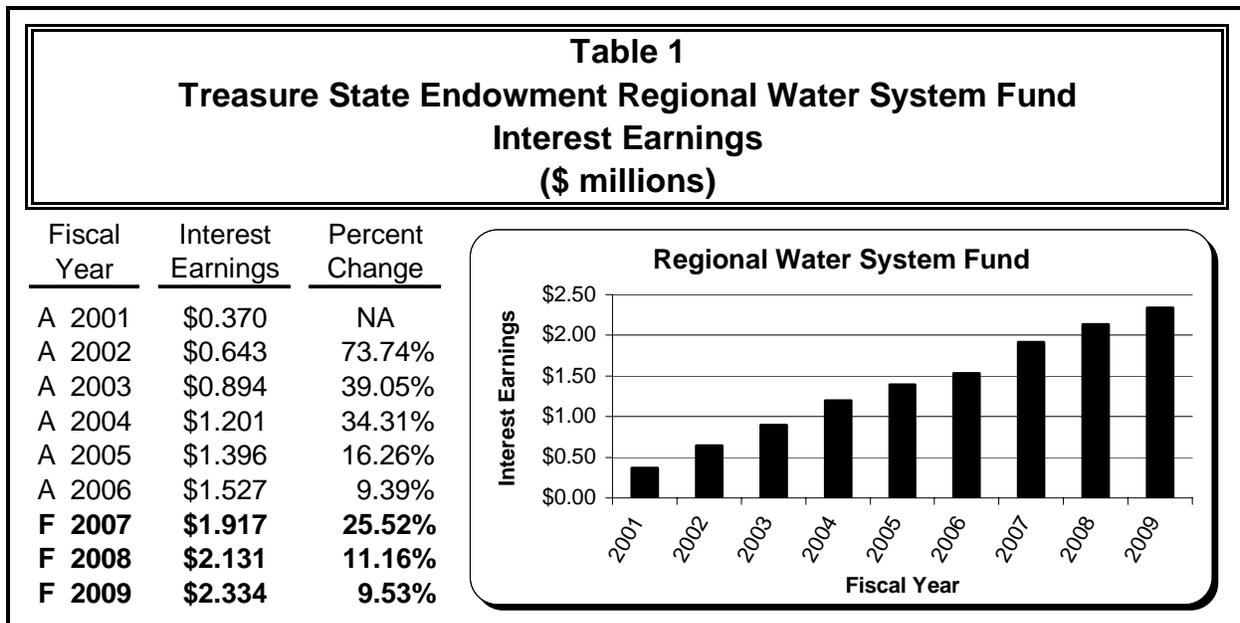
## TREASURE STATE ENDOWMENT REGIONAL WATER SYSTEM FUND INTEREST

### Revenue Description

Article IX, Section 5 of the Montana Constitution established a permanent trust fund into which at least half of coal severance tax revenue must be deposited. The trust fund is divided into several funds with different purposes, including the treasure state endowment regional water system (TSRWS) fund (17-5-703, MCA). Interest earnings from the TSRWS fund are used for regional water systems (90-6-715, MC).

### Projected Revenue

Table 1 shows actual interest earnings for the TSRWS fund for FY 2001 through FY 2006 and forecast earnings for FY 2007 through FY 2009.



Interest earnings grew consistently from FY 2001 through FY 2006 due to contributions from the coal severance tax. FY 2006 interest earnings grew more slowly, with a 9.39% increase, than previous years because the interest rates were lower. Earnings are projected to increase through FY 2009 because of increasing fund balances from the coal tax contributions. Forecast interest earnings are \$1.917 million in FY 2007, \$2.131 million in FY 2008, and \$2.334 million in FY 2009.

## Forecast Methodology and Projection Calculation

The following steps are taken to forecast the interest earnings from the TSRWS fund. First, the annual average balance of the fund is projected. Second, the annual average rate of return is projected. Third, interest earnings are forecast through multiplying the average balance by the average rate of return.

### Average Fund Balance

The fund balance currently grows through deposit of coal tax revenue into the fund. The tax revenue is net of any revenue needed by the coal tax bond fund to pay principal and interest on coal tax bonds. Under current law, the TSRWS fund will receive 12.5% of net coal tax revenue through FY 2016.

Table 2 shows actual and projected year end fund balances and fund deposits from FY 2003 through FY 2009. The average fund balance is forecast based on projected coal severance tax revenue. The TSRWS average fund balance is expected to be \$32.129 million in FY 2007, \$37.036 million in FY 2008, and \$42.016 million in FY 2009.

<b>Table 2</b>		
<b>TSRWS Fund Balance</b>		
<b>(\$ millions)</b>		
Fiscal Year	TSRWS Fund Balance	TSRWS Fund Deposits
A 2003	\$14.963	\$4.093
A 2004	\$16.810	\$3.336
A 2005	\$18.289	\$4.402
A 2006	\$27.397	\$4.697
<b>F 2007</b>	<b>\$32.129</b>	<b>\$4.732</b>
<b>F 2008</b>	<b>\$37.036</b>	<b>\$4.906</b>
<b>F 2009</b>	<b>\$42.016</b>	<b>\$4.980</b>

Table 3 shows actual and projected average TSRWS fund balances by investment type for FY 2003 through FY 2009. The fund balance is invested in the short term investment pool (STIP) and the trust fund bond pool (TFBP). From FY 2003 through FY 2006 the average fund balance invested in STIP was between 2% and 4% of total investment. New coal tax deposits are typically invested in STIP for a month or two before they are transferred to TFBP. As new coal tax deposits become smaller relative to the total fund balance, the STIP portion of total investment should decrease. The average balance invested in STIP is forecast to be 3% in FY 2007 and 2% in FY 2008 and FY 2009.

<b>Table 3</b>					
<b>TSRWS Fund Average Balance by Investment Type</b>					
<b>(\$ millions)</b>					
Fiscal Year	STIP Balance	% Total	TFBP Balance	% Total	Average Balance
A 2003	\$0.530	4%	\$12.275	96%	\$12.806
A 2004	\$0.391	2%	\$16.419	98%	\$16.810
A 2005	\$0.528	3%	\$20.127	97%	\$20.655
A 2006	\$0.725	3%	\$24.523	97%	\$25.248
<b>F 2007</b>	<b>\$0.754</b>	<b>3%</b>	<b>\$29.147</b>	<b>97%</b>	<b>\$29.901</b>
<b>F 2008</b>	<b>\$0.829</b>	<b>2%</b>	<b>\$33.897</b>	<b>98%</b>	<b>\$34.726</b>
<b>F 2009</b>	<b>\$0.870</b>	<b>2%</b>	<b>\$38.858</b>	<b>98%</b>	<b>\$39.728</b>

## TSRWS Fund Rate of Return

The forecasts of annual interest rates for the STIP and the TFBP are explained in the *Interest Earnings Introduction*.

## TSRWS Fund Income

TSRWS fund investment income is projected by multiplying the projected average fund balance by the projected interest for each type of investment. Table 4 shows actual and projected income and rates for each investment type from FY 2003 through FY 2009.

<b>Table 4</b>						
<b>TSRWS Fund</b>						
<b>Investment Income and Rate</b>						
<b>(\$ millions)</b>						
<u>Fiscal Year</u>	<u>STIP Income</u>	<u>Rate</u>	<u>TFBP Income</u>	<u>Rate</u>	<u>Total Income</u>	<u>Rate</u>
A 2003	\$0.009	1.65%	\$0.865	7.04%	\$0.873	6.82%
A 2004	\$0.004	1.03%	\$1.174	7.15%	\$1.178	7.01%
A 2005	\$0.012	2.28%	\$1.340	6.66%	\$1.352	6.55%
A 2006	\$0.031	4.27%	\$1.391	5.67%	\$1.422	5.63%
<b>F 2007</b>	<b>\$0.037</b>	<b>4.90%</b>	<b>\$1.714</b>	<b>5.88%</b>	<b>\$1.751</b>	<b>5.85%</b>
<b>F 2008</b>	<b>\$0.039</b>	<b>4.73%</b>	<b>\$1.942</b>	<b>5.73%</b>	<b>\$1.981</b>	<b>5.70%</b>
<b>F 2009</b>	<b>\$0.041</b>	<b>4.72%</b>	<b>\$2.143</b>	<b>5.52%</b>	<b>\$2.185</b>	<b>5.50%</b>

Total investment income increased in FY 2006 to \$1.422 million as the fund balance increase offset the interest rate decrease. Income is forecast to continue increasing as the fund balance grows and interest rates stabilize. The projected investment income is \$1.751 million in FY 2007, \$1.981 million in FY 2008, and \$2.185 million in FY 2009.

Total TSRWS fund interest earnings are the sum of TSRWS fund investment income and reinvested TSRWS income fund earnings. TSWRS investment earnings are held in the TSRWS income fund. Each biennium, the Legislature approves a list of projects for funding. A portion of the income fund balance is periodically transferred to a state special revenue account for use on approved projects. Money in the income fund that is not appropriated for use on these projects is reinvested in STIP, and the interest earnings are retained in the fund. Reinvested income is forecast by multiplying the projected average balance by the projected STIP interest rate. As shown in Table 5, reinvestment income is projected to be \$0.166 million in FY 2007, and \$0.150 million in FY 2008 and FY 2009.

Table 5 also illustrates total TSRWS fund interest earnings from FY 2003 through FY 2009. TSRWS fund interest earnings increased only 9% in FY 2006 due to lower interest rates. Interest earnings are expected to continue increasing because of increasing fund balance. The projected interest earnings are \$1.917 million in FY 2007, \$2.131 million in FY 2008, \$2.334 in FY 2009.

<b>Table 5</b>						
<b>TSRWS Fund Interest Earnings</b>						
<b>(\$ millions)</b>						
<u>Fiscal Year</u>	<u>TSRWS Fund Earnings</u>		<u>Reinvested Income Fund Earnings</u>		<u>Total Interest Earnings</u>	<u>Percent Change</u>
A 2003	\$0.873	+	\$0.021	=	\$0.894	39%
A 2004	\$1.178	+	\$0.023	=	\$1.201	34%
A 2005	\$1.352	+	\$0.044	=	\$1.396	16%
A 2006	\$1.422	+	\$0.106	=	\$1.527	9%
<b>F 2007</b>	<b>\$1.751</b>	<b>+</b>	<b>\$0.166</b>	<b>=</b>	<b>\$1.917</b>	<b>26%</b>
<b>F 2008</b>	<b>\$1.981</b>	<b>+</b>	<b>\$0.150</b>	<b>=</b>	<b>\$2.131</b>	<b>11%</b>
<b>F 2009</b>	<b>\$2.185</b>	<b>+</b>	<b>\$0.150</b>	<b>=</b>	<b>\$2.334</b>	<b>10%</b>

### HJR 2 Variables

Table 6 shows TSRWS fund balances, rate of return, and interest earnings from FY 2003 through FY 2009. The average fund balance is multiplied by the average rate of return to get interest earnings. TSRWS fund interest earnings are projected to be \$1.917 million in FY 2007, \$2.131 million in FY 2008, and \$2.334 million in FY 2009.

<b>Table 6</b>					
<b>TSRWS Fund Balance and Rate</b>					
<b>(\$ millions)</b>					
<u>Fiscal Year</u>	<u>Average Balance</u>		<u>Rate of Return</u>		<u>Interest Earnings</u>
A 2003	\$12.806	X	6.98%	=	\$0.894
A 2004	\$16.810	X	7.14%	=	\$1.201
A 2005	\$20.655	X	6.76%	=	\$1.396
A 2006	\$25.248	X	6.05%	=	\$1.527
<b>F 2007</b>	<b>\$29.901</b>	<b>X</b>	<b>6.41%</b>	<b>=</b>	<b>\$1.917</b>
<b>F 2008</b>	<b>\$34.726</b>	<b>X</b>	<b>6.14%</b>	<b>=</b>	<b>\$2.131</b>
<b>F 2009</b>	<b>\$39.728</b>	<b>X</b>	<b>5.88%</b>	<b>=</b>	<b>\$2.334</b>

### Data Sources

Fund balances and investment earnings were obtained from the Board of Investments and SABHRS.