



CITY OF RAPID CITY

Engineering Division

300 Sixth Street

Rapid City, SD 57701

Telephone: (605) 394-4154 FAX: (605) 394-6636

March 29, 2005

To: Public Works Committee

From: Dan Coon
Engineering Project Manager

Ref: Water and Water Reclamation
Income Based Discounts

At the March 16, 2005 Public Works Committee Meeting the following request was made.

“Identify the financial affects of applying a 20% discount at 150% of the poverty level and a 10% discount at 170% and 175% of the poverty level, as outlined by the school’s free and reduced lunch program.”

The attached documents provide this information. Attached are:

- Water Reclamation Enterprise Fund Income Based Discount Summary for 10% and 20% discounts at 150%, 170%, and 175% of the school lunch income level.
- Water Enterprise Fund Income Based Discount Summary for 10% and 20% discounts at 150%, 170%, and 175% of the school lunch income level.
- Income Based Discounts, Water and Water Reclamation Enterprise Funds, Data Sources and Assumptions
- Rapid City School Income Eligibility Guidelines

The following is an explanation of the information contained within each table on the attached summary sheets.

Income Levels Used:

This table provides the school lunch eligibility levels for different family sizes and the resulting 150%, 170%, and 175% income levels for each family size.



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER

Impact on Total Revenue:

This table provides the impact on the total revenue for the utility enterprise funds with 10% and 20% discounts at the 150%, 170%, and 175% income levels. For example the total revenue impact to the Water Reclamation Enterprise Funds in 2006 for a 20% discount at the 150% income level is \$112,955.00.

Number of Households Receiving Discount:

This table provides the estimated number of households that would receive a discount at the proposed income levels.

Impact on Other Rate Payers:

This table provides the estimated impact on rate payers not eligible for the income discount if the revenue requirements are distributed evenly among the remaining rate payers. The additional per unit revenue listed is for generation of \$50,000.00 of revenue for the enterprise fund. Using the example from above if \$112,955.00 in additional revenue is needed to be generated then the 2006 Water Reclamation Enterprise unit rate would need to be increased \$0.045 ($(\$112,955/\$50,000) \times \0.02) to meet this revenue need.

Discount to Eligible Households:

This table provides the monthly and annual discount a typical utility user would receive with a 10% or 20% discount.

Water Reclamation Enterprise Fund Income Based Discount Summary

Income Levels Used:

Family Size	1	2	3	4	5	6	7	8
Free Lunch Level	\$12,103	\$16,237	\$20,371	\$24,505	\$28,639	\$32,773	\$36,907	\$41,041
150%	\$18,155	\$24,356	\$30,557	\$36,758	\$42,959	\$49,160	\$55,361	\$61,562
170%	\$20,575	\$27,603	\$34,631	\$41,659	\$48,686	\$55,714	\$62,742	\$69,770
175%	\$21,180	\$28,415	\$35,649	\$42,884	\$50,118	\$57,353	\$64,587	\$71,822

Impact on Total Revenue:

Year	2005 (1)		2006		2007		2008		10% Total	20% Total
Discount	10%	20%	10%	20%	10%	20%	10%	20%		
Income Level										
150%	\$25,227	\$50,453	\$56,478	\$112,955	\$63,255	\$126,510	\$70,785	\$141,571	\$215,745	\$431,490
170%	\$32,769	\$65,539	\$73,364	\$146,728	\$82,168	\$164,335	\$91,950	\$183,899	\$280,251	\$560,501
175%	\$34,861	\$69,723	\$78,048	\$156,095	\$87,413	\$174,827	\$97,820	\$195,639	\$298,142	\$596,284

Number of Households Receiving Discount:

Income Level	Households
150%	2988
170%	3882
175%	4130

Impact on Other Rate Payers:

Income Level	Households	Monthly Discharge 7 units/mo.	Annual Discharge	Total Annual Units	Remaining Annual Units	Additional per Unit Revenue Needed for \$50,000
150%	2988	20,918	251,012	3,081,424	2,830,412	\$0.02
170%	3882	27,172	326,062	3,081,424	2,755,362	\$0.02
175%	4130	28,907	346,878	3,081,424	2,734,546	\$0.02

Discount to Eligible Households:

Year	Rate	Monthly Discharge Units	Monthly Bill	10% Discount Monthly	20% Discount Monthly	10% Discount Annually	20% Discount Annually
2005 (1)	\$2.01	7	\$14.07	\$1.41	\$2.81	\$8.44	\$16.88
2006	\$2.25	7	\$15.75	\$1.58	\$3.15	\$18.90	\$37.80
2007	\$2.52	7	\$17.64	\$1.76	\$3.53	\$21.17	\$42.34
2008	\$2.82	7	\$19.74	\$1.97	\$3.95	\$23.69	\$47.38

Note: (1) Assumes program will begin July 1, 2005. Totals indicate 6 months of revenue.

Water Enterprise Fund Income Based Discount Summary

Income Levels Used:

Family Size	1	2	3	4	5	6	7	8
Free Lunch Level	\$12,103	\$16,237	\$20,371	\$24,505	\$28,639	\$32,773	\$36,907	\$41,041
150%	\$18,155	\$24,356	\$30,557	\$36,758	\$42,959	\$49,160	\$55,361	\$61,562
170%	\$20,575	\$27,603	\$34,631	\$41,659	\$48,686	\$55,714	\$62,742	\$69,770
175%	\$21,180	\$28,415	\$35,649	\$42,884	\$50,118	\$57,353	\$64,587	\$71,822

Impact on Total Revenue:

Year	2005 (1)		2006		2007		2008		10% Total	20% Total
Discount	10%	20%	10%	20%	10%	20%	10%	20%		
Income Level										
150%	\$28,303	\$56,607	\$61,910	\$123,819	\$75,179	\$150,359	\$82,142	\$164,285	\$247,535	\$495,070
170%	\$36,734	\$73,468	\$81,033	\$162,066	\$97,739	\$195,478	\$106,791	\$213,582	\$322,297	\$644,593
175%	\$39,105	\$78,210	\$86,344	\$172,688	\$104,028	\$208,057	\$113,663	\$227,326	\$343,140	\$686,280

Number of Households Receiving Discount:

Income Level	Households
150%	2988
170%	3882
175%	4130

Impact on Other Rate Payers:

Income Level	Households	Monthly Usage 10 units/mo.	Annual Usage	Average Total Annual Retail Units	Remaining Annual Units	Additional per Unit Revenue Needed for \$50,000
150%	2988	29,882	358,589	5,109,230	4,750,641	\$0.01
170%	3882	38,817	465,803	5,109,230	4,643,427	\$0.01
175%	4130	41,295	495,540	5,109,230	4,613,690	\$0.01

Discount to Eligible Households:

Year	Base Rate for 5/8 inch Meter	Unit Rate	Monthly Units Used	Monthly Bill	10% Discount Monthly	20% Discount Monthly	10% Discount Annually	20% Discount Annually
2005	\$6.38	\$1.53	10	\$18.62	\$1.86	\$3.72	\$11.17	\$22.34
2006	\$6.95	\$1.66	10	\$20.23	\$2.02	\$4.05	\$24.28	\$48.55
2007	\$7.58	\$1.81	10	\$22.06	\$2.21	\$4.41	\$26.47	\$52.94
2008	\$8.26	\$1.98	10	\$24.10	\$2.41	\$4.82	\$28.92	\$57.84

Note: (1) Assumes program will begin July 1, 2005. Totals indicate 6 months of revenue.

**Income Based Discounts
Water and Water Reclamation Enterprise Funds
Data Sources and Assumptions**

Data Sources

1. The base income eligibility level was determined using the attached Income Eligibility Guidelines obtained from the Rapid City School District. The base income levels used are those found in the column defining the annual income level necessary to be eligible for free school lunches.

These income levels differ from the 2004 Health and Human Services (HHS) Poverty Guidelines. The Rapid City school lunch income eligibility guidelines are 30% higher than the HHS Poverty Guidelines.

2. The HUD Special Tabulations of 2000 Census Data was used to determine the number of households in each income level. This data is for home owners for all of Pennington County. The data indicates there were a total of 22,913 home owners in Pennington County in 2000. The City of Rapid City Water Division has approximately 15,600 Single Family Residence accounts. Therefore, all the Pennington County household numbers for each income level was multiplied by 0.68 (15,600/22,913) to determine the number of households at each income level in Rapid City.

The 2000 Census Data only provides information for households up to 5+ persons. Therefore, the school lunch income guideline for a household of 5 was used to determine the eligible income level for households with 5 or more people.

Assumptions

1. Only data for home owners was used. It is assumed the majority of renters live in multi-family housing or live in single family housing and do not receive a utility bill directly from the City.
2. It is assumed the 2000 census data will remain consistent through 2008.
3. The total revenue numbers indicate 100% participation by eligible households.
4. Sewer discharge for all participating households will be 7 units per month and water usage for all eligible households will be 10 units per month.

