

WATER SYSTEMS SUSTAINABILITY CHECK AND FUNDING REVIEW

Columbia-Shuswap Regional District
Committee of the Whole Meeting
October 16, 2024



PART 1 - SYSTEM SUSTAINABILITY CHECK

Examined 4 Categories:

Asset Condition

Asset Replacement Funding

Asset Management Reserves

Water Conservation

WATER SYSTEM
SUSTAINABILITY
HEALTH CHECK-
UP SCORING

ALL CLEAR

This indicator is meeting or exceeding the desired target and no additional actions are required.

INVESTIGATE

This indicator shows that the target is not being met and merits further investigation to understand if action is required.

INTERVENE

This indicator shows that the target is not being met by a significant margin and that intervening action(s) are very likely required.

TARGET BASED ON % OF ASSET LIFE REMAINING

ASSET
CONDITION
HEALTH RATING
TARGET

	% LIFE REMAINING	
	FROM	TO
ALL CLEAR	60%	100%
INVESTIGATE	40%	60%
INTERVENE	0%	40%

ASSET CONDITION HEALTH RATING

ANGLEMONT

CEDAR HEIGHTS

COTTONWOOD

EAGLE BAY

FALKLAND

GALENA

MAC-REED

SARATOGA

SORRENTO

SUNNYBRAE

SCORE	HEALTH RATING
58%	INVESTIGATE
39%	INTERVENE
72%	ALL CLEAR
32%	INTERVENE
48%	INVESTIGATE
80%	ALL CLEAR
60%	ALL CLEAR
56%	INVESTIGATE
56%	INVESTIGATE
67%	ALL CLEAR

**TARGET BASED ON ASSETS LASTING 50% LONGER
THAN THE GENERALLY ACCEPTED CONSERVATIVE
LIFESPANS**

ASSET
REPLACEMENT
FUNDING
HEALTH RATING
TARGET

	% OF TARGET	
	FROM	TO
ALL CLEAR	60%	100%
INVESTIGATE	40%	60%
INTERVENE	0%	40%



WATER PIPE EXAMPLE

200m of 150mm diameter PVC water pipe

Replacement Value = \$180,000

Lifespan from AM plans = 80 years

Annual sustainable funding level = $\$180,000/80$
years = \$2250/year

If assume asset lasts 50% longer than:

Annual sustainable funding level = \$1500/year

ASSET
REPLACEMENT
FUNDING
HEALTH RATING

	SCORE	HEALTH RATING
ANGLEMONT	36%	INTERVENE
CEDAR HEIGHTS	7%	INTERVENE
COTTONWOOD	291%	ALL CLEAR
EAGLE BAY	17%	INTERVENE
FALKLAND	11%	INTERVENE
GALENA	11%	INTERVENE
MAC-REED	12%	INTERVENE
SARATOGA	108%	ALL CLEAR
SORRENTO	82%	ALL CLEAR
SUNNYBRAE	28%	INTERVENE

TARGET BASED ON THE VALUE OF ASSETS ESTIMATED TO BE IN POOR CONDITION*

ASSET MANAGEMENT RESERVES TARGET

	% OF TARGET	
	FROM	TO
ALL CLEAR	60%	100%
INVESTIGATE	40%	60%
INTERVENE	0%	40%

* Minimum of 5% of replacement value

ASSET
MANAGEMENT
RESERVES
HEALTH RATING

	SCORE	HEALTH RATING
ANGLEMONT	107%	ALL CLEAR
CEDAR HEIGHTS	24%	INTERVENE
COTTONWOOD	1143%	ALL CLEAR
EAGLE BAY	28%	INTERVENE
FALKLAND	30%	INTERVENE
GALENA	244%	ALL CLEAR
MAC-REED	18%	INTERVENE
SARATOGA	266%	ALL CLEAR
SORRENTO	76%	ALL CLEAR
SUNNYBRAE	55%	INVESTIGATE

**TARGET BASED ON SUMMER PEAK BEING
LESS THAN 1500L/DAY PER CONNECTION**

**WATER
CONSERVATION
TARGET**

	% OF TARGET	
	FROM	TO
ALL CLEAR	0%	125%
INVESTIGATE	125%	250%
INTERVENE	250%	>

WATER
CONSERVATION
HEALTH RATING

ANGLEMONT

CEDAR HEIGHTS

COTTONWOOD

EAGLE BAY

FALKLAND

GALENA

MAC-REED

SARATOGA

SORRENTO

SUNNYBRAE

SCORE	HEALTH RATING
304%	INTERVENE
163%	INVESTIGATE
122%	ALL CLEAR
183%	INVESTIGATE
269%	INTERVENE
42%	ALL CLEAR
271%	INTERVENE
136%	INVESTIGATE
142%	INVESTIGATE
172%	INVESTIGATE

PART 2 – WATER SYSTEM FUNDING

- Revenue requirements
- Role of user fees vs. parcel taxes
- Funding scenarios to achieve objectives

REVENUE REQUIREMENTS

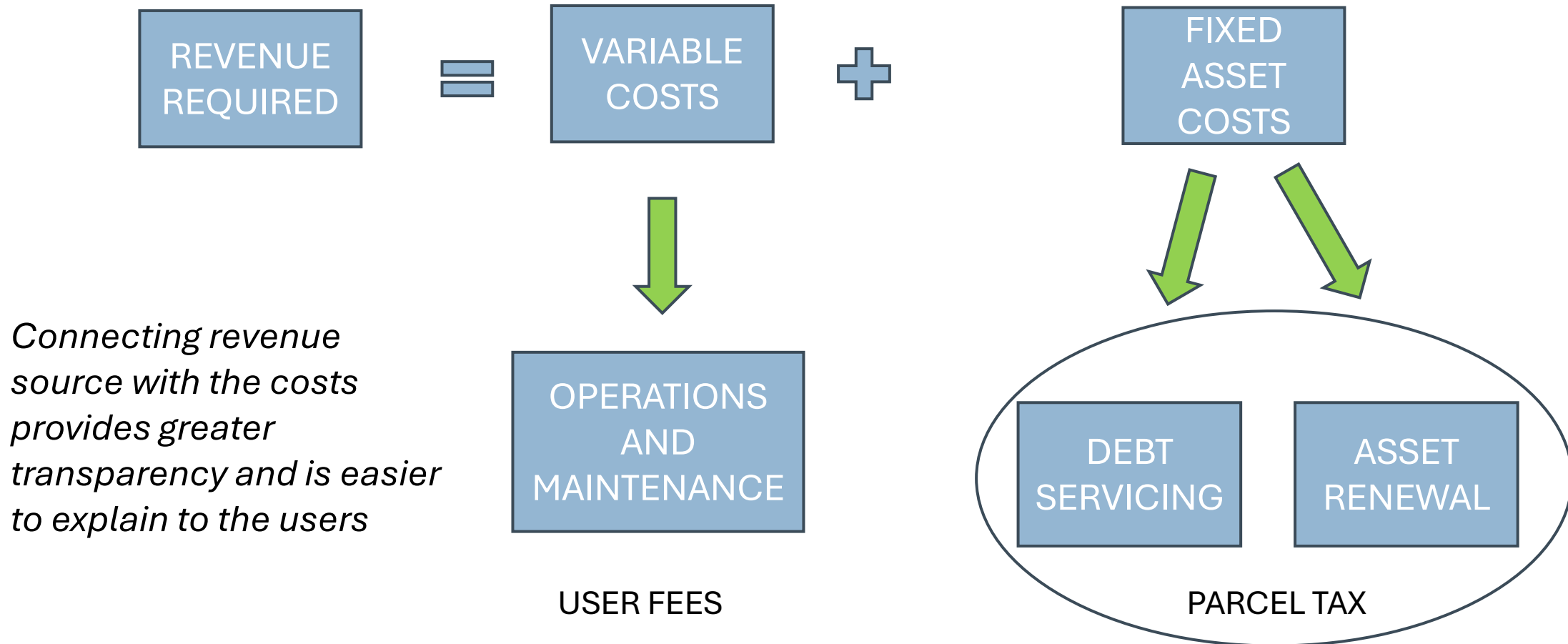


REVENUE SOURCES

- User Fees
- Parcel Taxes
- Other Miscellaneous (connections, bulk sales)

Currently no relationship between costs and revenue source

PROPOSED ADJUSTMENT TO ALIGN REVENUE SOURCE AND PURPOSE



PROPOSED FUNDING TARGET FOR 2025-2029

Initial funding targets for asset management will be based on the assumption* that assets will have useful lives that are 50% longer than the standard “rules of thumb”

** These standard rules of thumb are generally considered conservative. Ideally lifespans will be based on actual field observations. This target can be revised as better information is gained.*

FUNDING SCENARIOS

1. Status Quo - Maintain existing ratio between parcel taxes and user fees and increase by maximum 5% annually (2025-2029)
2. Adjust parcel taxes to fund debt and capital replacements and increase funding to achieve 75% of funding target in 5 years
3. Adjust parcel taxes to fund debt and capital replacements and increase funding to achieve 50% of funding target in 5 years

SCENARIO 1

Status Quo - Maintain existing ratio between parcel taxes and user fees and increase by maximum 5% annually (2025-2029)

COMBINED USER FEES AND PARCEL TAXES - SCENARIO 1

	2024	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 1,249	\$ 1,311	\$ 1,377	\$ 1,446	\$ 1,518	\$ 1,594	5.0%
CEDAR HEIGHTS	\$ 538	\$ 565	\$ 593	\$ 623	\$ 654	\$ 687	5.0%
COTTONWOOD	\$ 549	\$ 533	\$ 516	\$ 500	\$ 485	\$ 470	-3.1%
EAGLE BAY	\$ 849	\$ 892	\$ 937	\$ 983	\$ 1,033	\$ 1,084	5.0%
FALKLAND	\$ 586	\$ 616	\$ 646	\$ 679	\$ 713	\$ 748	5.0%
GALENA	\$ 1,004	\$ 1,054	\$ 1,107	\$ 1,162	\$ 1,220	\$ 1,281	5.0%
MAC-REED	\$ 1,155	\$ 1,213	\$ 1,274	\$ 1,337	\$ 1,404	\$ 1,474	5.0%
SARATOGA	\$ 955	\$ 971	\$ 988	\$ 1,005	\$ 1,022	\$ 1,039	1.7%
SORRENTO	\$ 703	\$ 730	\$ 758	\$ 787	\$ 818	\$ 850	3.9%
SUNNYBRAE	\$ 1,218	\$ 1,279	\$ 1,343	\$ 1,410	\$ 1,481	\$ 1,555	5.0%

SCENARIO 1 – USER FEES

	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 700	\$ 735	\$ 772	\$ 810	\$ 851	\$ 893	5.0%
CEDAR HEIGHTS	\$ 349	\$ 366	\$ 385	\$ 404	\$ 424	\$ 445	5.0%
COTTONWOOD	\$ 214	\$ 208	\$ 203	\$ 197	\$ 192	\$ 187	-2.7%
EAGLE BAY	\$ 434	\$ 456	\$ 478	\$ 502	\$ 528	\$ 554	5.0%
FALKLAND	\$ 340	\$ 357	\$ 375	\$ 394	\$ 413	\$ 434	5.0%
GALENA	\$ 200	\$ 210	\$ 221	\$ 232	\$ 243	\$ 255	5.0%
MAC-REED	\$ 839	\$ 881	\$ 925	\$ 971	\$ 1,020	\$ 1,071	5.0%
SARATOGA	\$ 696	\$ 709	\$ 723	\$ 736	\$ 750	\$ 765	1.9%
SORRENTO	\$ 474	\$ 490	\$ 506	\$ 522	\$ 540	\$ 558	3.3%
SUNNYBRAE	\$ 784	\$ 823	\$ 864	\$ 908	\$ 953	\$ 1,001	5.0%

SCENARIO 1 – PARCEL TAXES

	2024	2025	2026	2027	2028	2029	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 549	\$ 576	\$ 605	\$ 635	\$ 667	\$ 700	5.0%
CEDAR HEIGHTS	\$ 189	\$ 198	\$ 208	\$ 219	\$ 230	\$ 241	5.0%
COTTONWOOD	\$ 335	\$ 324	\$ 314	\$ 303	\$ 293	\$ 284	-3.3%
EAGLE BAY	\$ 415	\$ 436	\$ 458	\$ 481	\$ 505	\$ 530	5.0%
FALKLAND	\$ 246	\$ 259	\$ 272	\$ 285	\$ 299	\$ 314	5.0%
GALENA	\$ 804	\$ 844	\$ 886	\$ 931	\$ 977	\$ 1,026	5.0%
MAC-REED	\$ 316	\$ 332	\$ 349	\$ 366	\$ 384	\$ 404	5.0%
SARATOGA	\$ 259	\$ 262	\$ 265	\$ 268	\$ 271	\$ 275	1.2%
SORRENTO	\$ 229	\$ 240	\$ 252	\$ 265	\$ 278	\$ 292	5.0%
SUNNYBRAE	\$ 434	\$ 456	\$ 479	\$ 503	\$ 528	\$ 554	5.0%

SCENARIO 2

Adjust parcel taxes to fund debt and capital replacements and increase funding to achieve 75% of funding target in 5 years

COMBINED USER FEES AND PARCEL TAXES - SCENARIO 2

	2024	2025	2026	2027	2028	2029	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 1,249	\$ 1,305	\$ 1,366	\$ 1,431	\$ 1,500	\$ 1,575	4.8%
CEDAR HEIGHTS	\$ 538	\$ 592	\$ 653	\$ 719	\$ 793	\$ 876	10.2%
COTTONWOOD	\$ 549	\$ 474	\$ 436	\$ 425	\$ 434	\$ 461	-3.5%
EAGLE BAY	\$ 849	\$ 931	\$ 1,023	\$ 1,130	\$ 1,253	\$ 1,394	10.4%
FALKLAND	\$ 586	\$ 647	\$ 714	\$ 789	\$ 871	\$ 962	10.4%
GALENA	\$ 1,004	\$ 1,034	\$ 1,138	\$ 1,355	\$ 1,741	\$ 2,391	19.0%
MAC-REED	\$ 1,155	\$ 1,276	\$ 1,411	\$ 1,562	\$ 1,730	\$ 1,918	10.7%
SARATOGA	\$ 955	\$ 955	\$ 956	\$ 957	\$ 960	\$ 963	0.2%
SORRENTO	\$ 703	\$ 717	\$ 734	\$ 752	\$ 772	\$ 794	2.5%
SUNNYBRAE	\$ 1,218	\$ 1,303	\$ 1,397	\$ 1,502	\$ 1,618	\$ 1,747	7.5%

SCENARIO 2 – USER FEES

	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 700	\$ 753	\$ 810	\$ 872	\$ 938	\$ 1,009	7.6%
CEDAR HEIGHTS	\$ 349	\$ 391	\$ 438	\$ 491	\$ 551	\$ 617	12.1%
COTTONWOOD	\$ 214	\$ 244	\$ 277	\$ 316	\$ 360	\$ 409	13.9%
EAGLE BAY	\$ 434	\$ 505	\$ 587	\$ 683	\$ 795	\$ 925	16.3%
FALKLAND	\$ 340	\$ 381	\$ 427	\$ 478	\$ 536	\$ 601	12.1%
GALENA	\$ 200	\$ 315	\$ 495	\$ 780	\$ 1,227	\$ 1,932	57.4%
MAC-REED	\$ 839	\$ 911	\$ 988	\$ 1,073	\$ 1,164	\$ 1,264	8.5%
SARATOGA	\$ 696	\$ 684	\$ 672	\$ 660	\$ 648	\$ 637	-1.8%
SORRENTO	\$ 474	\$ 469	\$ 465	\$ 460	\$ 456	\$ 451	-1.0%
SUNNYBRAE	\$ 784	\$ 870	\$ 965	\$ 1,070	\$ 1,187	\$ 1,316	10.9%

SCENARIO 2 – PARCEL TAXES

	2024	2025	2026	2027	2028	2029	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 549	\$ 552	\$ 556	\$ 559	\$ 562	\$ 566	0.6%
CEDAR HEIGHTS	\$ 189	\$ 201	\$ 214	\$ 228	\$ 243	\$ 258	6.4%
COTTONWOOD	\$ 335	\$ 230	\$ 158	\$ 109	\$ 75	\$ 51	-31.3%
EAGLE BAY	\$ 415	\$ 426	\$ 436	\$ 447	\$ 458	\$ 469	2.5%
FALKLAND	\$ 246	\$ 266	\$ 287	\$ 310	\$ 335	\$ 362	8.0%
GALENA	\$ 804	\$ 719	\$ 643	\$ 575	\$ 514	\$ 460	-10.6%
MAC-REED	\$ 316	\$ 366	\$ 423	\$ 489	\$ 566	\$ 654	15.6%
SARATOGA	\$ 259	\$ 271	\$ 284	\$ 297	\$ 311	\$ 326	4.7%
SORRENTO	\$ 229	\$ 248	\$ 269	\$ 291	\$ 316	\$ 343	8.4%
SUNNYBRAE	\$ 434	\$ 434	\$ 433	\$ 432	\$ 432	\$ 431	-0.1%

SCENARIO 3

Adjust parcel taxes to fund debt and capital replacements and increase funding to achieve 50% of funding target in 5 years

COMBINED USER FEES AND PARCEL TAXES - SCENARIO 3

	2024	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 1,249	\$ 1,287	\$ 1,330	\$ 1,377	\$ 1,430	\$ 1,488	3.6%
CEDAR HEIGHTS	\$ 538	\$ 577	\$ 620	\$ 670	\$ 726	\$ 789	8.0%
COTTONWOOD	\$ 549	\$ 456	\$ 412	\$ 401	\$ 414	\$ 444	-4.2%
EAGLE BAY	\$ 849	\$ 897	\$ 958	\$ 1,033	\$ 1,126	\$ 1,237	7.8%
FALKLAND	\$ 586	\$ 626	\$ 671	\$ 721	\$ 778	\$ 842	7.5%
GALENA	\$ 1,004	\$ 978	\$ 1,042	\$ 1,230	\$ 1,599	\$ 2,238	17.4%
MAC-REED	\$ 1,155	\$ 1,248	\$ 1,348	\$ 1,456	\$ 1,573	\$ 1,700	8.0%
SARATOGA	\$ 955	\$ 934	\$ 913	\$ 893	\$ 873	\$ 854	-2.2%
SORRENTO	\$ 703	\$ 698	\$ 693	\$ 689	\$ 684	\$ 679	-0.7%
SUNNYBRAE	\$ 1,218	\$ 1,269	\$ 1,333	\$ 1,409	\$ 1,499	\$ 1,603	5.6%

SCENARIO 3 – USER FEES

	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 700	\$ 753	\$ 810	\$ 872	\$ 938	\$ 1,009	7.6%
CEDAR HEIGHTS	\$ 349	\$ 391	\$ 438	\$ 491	\$ 551	\$ 617	12.1%
COTTONWOOD	\$ 214	\$ 244	\$ 277	\$ 316	\$ 360	\$ 409	13.9%
EAGLE BAY	\$ 434	\$ 505	\$ 587	\$ 683	\$ 795	\$ 925	16.3%
FALKLAND	\$ 340	\$ 381	\$ 427	\$ 478	\$ 536	\$ 601	12.1%
GALENA	\$ 200	\$ 315	\$ 495	\$ 780	\$ 1,227	\$ 1,932	57.4%
MAC-REED	\$ 839	\$ 911	\$ 988	\$ 1,073	\$ 1,164	\$ 1,264	8.5%
SARATOGA	\$ 696	\$ 684	\$ 672	\$ 660	\$ 648	\$ 637	-1.8%
SORRENTO	\$ 474	\$ 469	\$ 465	\$ 460	\$ 456	\$ 451	-1.0%
SUNNYBRAE	\$ 784	\$ 870	\$ 965	\$ 1,070	\$ 1,187	\$ 1,316	10.9%

SCENARIO 3 – PARCEL TAXES

	2024	2025	2026	2027	2028	2029	COMPOUND ANNUAL INCREASE
ANGLEMONT	\$ 549	\$ 534	\$ 520	\$ 506	\$ 492	\$ 479	-2.7%
CEDAR HEIGHTS	\$ 189	\$ 185	\$ 182	\$ 179	\$ 175	\$ 172	-1.9%
COTTONWOOD	\$ 335	\$ 212	\$ 134	\$ 85	\$ 54	\$ 34	-36.7%
EAGLE BAY	\$ 415	\$ 392	\$ 371	\$ 350	\$ 331	\$ 312	-5.5%
FALKLAND	\$ 246	\$ 245	\$ 244	\$ 243	\$ 242	\$ 241	-0.5%
GALENA	\$ 804	\$ 663	\$ 546	\$ 450	\$ 371	\$ 306	-17.6%
MAC-REED	\$ 316	\$ 337	\$ 360	\$ 383	\$ 409	\$ 436	6.6%
SARATOGA	\$ 259	\$ 250	\$ 241	\$ 233	\$ 225	\$ 217	-3.4%
SORRENTO	\$ 229	\$ 229	\$ 229	\$ 228	\$ 228	\$ 228	-0.1%
SUNNYBRAE	\$ 434	\$ 400	\$ 368	\$ 339	\$ 312	\$ 287	-7.9%

SUMMARY OF ANNUAL % CHANGE FOR TOTAL CHARGES

AND

RESULTING ASSET REPLACEMENT FUNDING HEALTH RATINGS

	SCENARIO 1 STATUS QUO	SCENARIO 2 75% OF TARGET	SCENARIO 3 50% OF TARGET
ANGLEMONT	5.0%	4.8%	3.6%
CEDAR HEIGHTS	5.0%	10.2%	8.0%
COTTONWOOD	-3.1%	-3.5%	-4.2%
EAGLE BAY	5.0%	10.4%	7.8%
FALKLAND	5.0%	10.4%	7.5%
GALENA	5.0%	19.0%	17.4%
MAC-REED	5.0%	10.7%	8.0%
SARATOGA	1.7%	0.2%	-2.2%
SORRENTO	3.9%	2.5%	-0.7%
SUNNYBRAE	5.0%	7.5%	5.6%

ALL CLEAR

INVESTIGATE

INTERVENE

QUESTIONS AND DISCUSSION

