### MASON COUNTY BOARD OF COMMISSIONERS General Utility Management Study

#### **PRESENTED BY:**

Dawn Findlay Reitan, Inslee Best

Tom Perry, MSA Ed Cebron, FCS GROUP

**July 2007** 



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**Presentation Order** 

Dawn Findlay Reitan – Legal

Tom Perry – Operational/Capital Planning

Ed Cebron – Financial Policy and Impact

**Team Members Not Presenting:** 

Hugh Spitzer, Foster Pepper

John Milne, Inslee Best

**Courtney Black, FCS Group** 



### Dawn Findlay Reitan, Inslee Best

### **Utilities Status Report**

#### Engineering/Planning/Operations Tom Perry, MSA

## **Mason County Utilities**

- Rustlewood Water and Sewer System
- Hartstene Pointe Water and Sewer System
- North Bay/Case Inlet Sewer
- Beard's Cove Water System
- Belfair Sewer (proposed)

## **Rustlewood Sewer**

Rustlewood Subdivision, 130 connections

System Operations - Shared Staff, Increased needs with anticipate WWTP project

### Current Planning Documents/Studies

- Abbreviated Engineering Report WWTP 2006
- I&I Study/Engineering Report 1995

#### System Deficiencies

- Excessive I&I
- WWTP deficiencies (current project)
- No CIP, current focus on WWTP

#### **10 Year Estimated Capital Needs**

- WWTP Upgrade, I&I program, Pump Station Upgrades
- \$2,554,000

## **Rustlewood Water**

- Rustlewood Subdivision, 130 connections
- System Operations Shared Staff
- Current Planning Documents/Studies
  - None

### System Deficiencies

- No system studies, Plans or CIP
- No meters

### 10 Year Estimated Capital Needs

- Distribution Improvements, Pump System Upgraded, Reservoir Upgrades, Water Meters
- \$524,000

## Hartstene Pointe Sewer

- Hartstene Development, 350 connections
- System Operations Shared Operations Staff
- Current Planning Documents/Studies
  - Amendment to Engineering Report 2004

### System Deficiencies

- Excessive I&I
- No documentation on overall system condition. No CIP. Current focus on WWTP outfall

### 10 year Estimated Capital Needs

- Outfall Upgrade, I&I Program, Minor Facility Improvements
- \$1,038,000

## Hartstene Pointe Water

- Hartstene Development, 350 connections
- Operations Shared Operations Staff
- Current Planning Documents/Studies
  - Water Plan Update in progress

#### System Deficiencies

- No Current Water Plan in progress
- Water source exceeds arsenic standard addressing in Water Plan
- No meters

### 10 year Estimated Capital Needs

- Treatment Upgrades, Minor Facility Improvements, Water Meters9
- \$678,000

## North Bay/Case Inlet Sewer

Lakeland Village, Victor & Allyn, 1,030 connections

- Operations Largest demand, needs increased by collection system type
- Current Planning Documents/Studies
   North Bay/Case Inlet Facilities Plan 1994

### System Deficiencies

- No planning documents or system evaluation since start-up
- Pump station overflow deficiencies

### 10 year Estimated Capital Needs

- Mobile Home Park PS, Pump Station Overflow Improvements, Minor Facility Improvements, WWTP Capacity Upgrade (2017)
- \$2,514,000

## **Beard's Cove Water System**

- Six subdivisions, 405 connections
- Operations Shared Operations Staff
- Current Planning Documents/Studies
  - Water System Plan 2002
- System Deficiencies
  - No meters
  - 10 year Estimated Capital Needs
    - Distribution and Facility Improvements, New Reservoir, Water Meters
    - \$841,000

## **Belfair Sewer**

- Proposed System 2009
- Belfair UGA, 500 ERU's initially
- Operations Shared Staff/Facilities with NB/CI
- Current Planning Documents/Studies
  - Belfair/Lower Hood Canal Facility Plan 2003
  - Facility Plan Supplement 2007
- 10 year Estimated Capital Needs
  - System Development, Minor Facility Improvements
  - \$24,660,000

## Staffing

- Shared operations staff
- 5 operators, 1 administration/manager (Tom Moore)
- Operations and responses to emergencies hindered by location of utilities
- Certification, training and continuing education required
- Current staffing levels adequate

No additional staff availability to accommodate new projects (construction or operations)



#### Shared staff resources to operate utilities

- Provides system coverage and redundancy
- Efficient and cost effective for small systems

#### Other shared resources

- Laboratory facilities
- Equipment/vehicles
- Management tools

## Standards

- No uniform utility standards for design, construction, policies and procedures
- Mason County Code Title 13 Utilities
   APWA Standards Specifications for Municipal Public Works
- Some standards are codified within Title 13 under specific utility chapters

## **Planning Documents**

#### Two current comprehensive planning documents

- Belfair Facility Plan and Supplement
- Beard's Cove Water System Plan
- Water Comp Plan for Hartstene Pt. is being developed
- Two engineering reports that focus on specific facility improvements
  - Rustlewood Sewer (WWTP)
  - Harstene Point Sewer (outfall)

### 10 year estimated capital needs significant

\$8 million+ (excluding Belfair)

### Recommendations

### Staffing

Continually review staffing needs

- Ensure coverage and redundancy
- Proper training and certification
- Additional staffing may be required to maintain existing projects
  - Service areas expansion
  - Treatment and maintenance requirements increase
- Additional staffing will be required to accommodate new projects

### Resources

- Continue to share resources between utilities
- Explore other opportunities to share resources
  - Sludge handling
  - Planning and design of new projects

### Recommendations (CONTINUED)

#### Standards

- Develop uniform standards for design and construction
- Develop uniform policies and procedures
- Reliance on other agency's standards

### Comprehensive Planning Documents

- County wide approach
- General Sewer Plan to include all sewer utilities
- Water Comprehensive Plan to include all water utilities

## Financial Policy and Impacts Ed Cebron, FCS GROUP

## **Policy Document Highlights**

- Financial Integrity and Stability
- Capital Program Funding
- Managing Debt
  - Rate Setting and Revenue Sufficiency

- Budgeting and Accounting
- Rate Structure and Equity
- Utility Formation and Acquisition

## **Utilities Evaluated**

### Wastewater

- North Bay Case Inlet Wastewater
- Rustlewood Wastewater
- Hartstene Pointe Wastewater
- Consolidated Wastewater

### Water

- Beards Cove Water
- Rustlewood Water
- Hartstene Pointe
   Water
- Consolidated Water

### Landfill

## **Consolidation Options**

The County is maintaining separate rates and charges for six, potentially seven or more, water and wastewater systems...

- A consolidation of water systems and a consolidation of wastewater systems might
  - allow more efficient management of the County utilities
  - realize economies of scale, lowering future rate levels for all customer
  - simplify incorporation of new service areas into the County's water and wastewater services
  - Summary of potential consolidation assumes four-year phasing to the highest current monthly rate

Water and Wastewater Systems Budgets may have significantly low 2007 excise tax.

- 0.5% annual projected growth in all utilities NBCI 2.5% 2008 and ~1.3% annually through 2013
- Combined Water/Wastewater Budgeted 2007 revenue and fund balances allocated by 2006 share of actual water and wastewater revenue.
  - 3% assumption for 2007 salary increases.

# Water and Wastewater Systems

Revenue bonds are the assumed debt mechanism for the rate forecasts if funding has not already been secured, though grants and low cost loans should be utilized when available.

Capital costs are escalated to the year of planned spending at 4% annually.

Annual general operating cost escalation 3%, labor escalation 5%.

## Wastewater

## North Bay Case Inlet Wastewater

- \$1,135,200 System Rate Revenue
- \$613,000 Annual Operating Expenses
- \$674,000 Existing Annual Debt Service
- \$3 million in CIP projects (through 2016, escalated)
- \$438,000 projected revenue bond borrowing (\$394k proceeds)
  - Current Rate \$86 per month
  - No 2007 budgeted capital reserve addition

## **NBCI Wastewater**

Revenue Requirements	2007	2008	2009	2010	2011	2012	2013
Revenues Rate Revenues Under Existing Rates Use of Connection Charges for Debt Non-Rate Revenues	\$ 1,135,200 77,850 <u>17,704</u>	\$ 1,164,061 140,461 16,739	\$ 1,179,454 79,006 <u>17,419</u>	49,860 18,133	17,439 18,791	\$ 1,225,631	\$ 1,241,024 
Total Revenues	\$ 1,230,754	\$ 1,321,260	\$ 1,275,878	\$ 1,262,839	\$ 1,246,468	\$ 1,244,697	\$ 1,260,071
Expenses Cash O&M Expenses Existing Debt Service New Debt Service Rate Funded System Reinvestment Rate Funded CIP	\$ 612,723 673,862 24,093	\$ 583,855 673,861 47,263 8,417	\$ 603,776 673,862 65,431 5,934	\$ 625,968 673,862 81,748 1,971	673,862 95,758 	673,862 108,242	\$ 693,658 673,862 112,580
Total Expenses	\$ 1,310,678	\$ 1,313,395	\$ 1,349,003	\$ 1,383,549	\$ 1,417,613	\$ 1,452,663	\$ 1,480,099
Annual Rate Adjustment Cumulative Rate Adjustment	0.00% 0.00%					2.00% 15.91%	
Rate Revenues After Rate Increase Net Cash Flow After Rate Increase Monthly Rate	\$ 1,135,200 (79,924) \$86.00	\$ 1,198,983 42,786 \$88.58	\$ 1,263,431 10,853 \$92.12	\$ 1,331,116 15,559 \$95.81	\$ 1,375,229 (6,155) \$97.72	\$ 1,420,575 (13,022) \$99.68	\$ 1,467,184 6,131 \$101.67
Policy Realization Connection Charges to Capital System Reinvestment Funding Coverage 1.25 All Debt	50% 100% 10%	50% 100% 30%	50% 100% 50%	70% 100% 70%	90% 100% 90%	100% 100% 100%	100%
Capital Funding	2007	2008	2009	2010	2011	2012	2013
Total Capital Projects	\$ 373,152	\$ 388,078	\$ 403,601	\$ 267,664	\$ 278,370	\$ 289,505	\$ 232,657
Use of Capital Fund Balance Revenue Bond Proceeds Direct Rate Funding	103,000 270,152	128,277 259,801	199,878 203,723	100,565 167,098	134,901 143,469	161,669 127,836	188,232 44,425
Total Funding Sources	\$ 373,152	\$ 388,078	\$ 403,601	\$ 267,664	\$ 278,370	\$ 289,505	\$ 232,627

## **Rustlewood Wastewater**

- \$108,000 System Rate Revenue
- \$91,000 Annual Operating Expenses
- \$45,000 Existing Annual Debt Service
- \$2.9 million in CIP projects (through 2016, escalated)
- \$1.3 million projected 2007 PWTF borrowing,
  \$1.5 million projected revenue bond borrowing (\$1.3 million proceeds)
- Current Rate \$70 per month.
- There is no Rustlewood capital reserve

## **Rustlewood Wastewater**

	2007		2008		2009		2010		2011		2012		2013
\$	108,084 5,000 1,380	\$	1,648	\$	109,167 1,656 1 340	\$	-	\$	-	\$	110,813 - 3 797	\$	111,367 - 4,238
\$	114,464	\$	110,660	\$		\$		\$		\$	114,610	\$	115,605
S	45,303 6,500 -		45,090 101,229 -		104,569 44,878 144,095 -	\$	44,666 156,871 -		44,453 169,768		116,804 4,736 176,531	\$	121,077 4,736 180,956
\$	142,800	\$	245,570	\$	293,542	\$	310,272	\$	326,913	\$	298,071	\$	306,769
	0.00% 0.00%		125.00% 125.00%		20.00% 170.00%		5.00% 183.50%		2.00% 189.17%		2.00% 194.95%		2.00% 200.85%
\$	108,084 (28,336) \$70.00	\$	244,404 870 \$157.50	\$	294,751 4,205 \$189.00	\$	311,036 3,763 \$198.45	S			326,846 32,572 \$206.47	\$	335,050 32,519 \$210.60
	50% 100% 10%		50% 100% 30%		50% 100% 50%		100% 100% 70%		100% 100% 90%		100% 100% 100%		100% 100% 100%
	2007		2008		2009		2010		2011		2012		2013
\$ 1	1,202,739	\$	473,455	\$	492,393	\$	136,265	\$	141,716	\$	76,324	\$	79,377
	1,300,000		178,470 294,985		7,894 484,499		3,589 132,676		4,623 137,092		3,507 72,817		30,572 48,805 <b>2</b> 9
	\$ \$ \$ \$	5,000 1,380 \$ 114,464 \$ 90,997 45,303 6,500 - \$ 142,800 0.00% \$ 108,084 (28,336) \$70.00 50% 100% 100%	\$ 108,084 \$ 5,000 1,380 \$ 114,464 \$ \$ 90,997 \$ 45,303 6,500 	\$ 108,084       \$ 108,624         5,000       1,648         1,380       388         \$ 114,464       \$ 110,660         \$ 90,997       \$ 99,252         45,303       45,090         6,500       101,229         -       -         \$ 142,800       \$ 245,570         0.00%       125.00%         0.00%       125.00%         0.00%       50%         108,084       \$ 244,404         (28,336)       \$ 125.00%         \$ 108,084       \$ 244,404         \$ 2007       50%         50%       50%         100%       100%         30%       \$ 2007         \$ 1,202,739       \$ 473,455         1,300,000       -         -       -         1,300,000       -         -       178,470	\$ 108,084       \$ 108,624       \$ 1,648         \$ 5,000       1,648       388         \$ 114,464       \$ 110,660       \$ \$         \$ 90,997       \$ 99,252       \$ 45,303         \$ 90,997       \$ 99,252       \$ 45,090         \$ 45,303       45,090       101,229         \$ 142,800       \$ 245,570       \$ \$         \$ 108,084       \$ 245,570       \$ \$         \$ 108,084       \$ 244,404       \$ \$         \$ 108,084       \$ 244,404       \$ \$         \$ 108,084       \$ 244,404       \$ \$         \$ 108,084       \$ 244,404       \$ \$         \$ 108,084       \$ 244,404       \$ \$         \$ 108,084       \$ 244,404       \$ \$         \$ 108,084       \$ 244,404       \$ \$         \$ 108,084       \$ 244,404       \$ \$         \$ 100%       \$ \$0%       \$ \$         \$ 100%       \$ \$0%       \$ \$         \$ 00%       \$ \$0%       \$ \$         \$ 00%       \$ \$ \$       \$ \$         \$ 100%       \$ \$       \$ \$         \$ 00%       \$ \$ \$       \$ \$         \$ 100%       \$ \$       \$ \$         \$ 00%       \$ \$       \$ \$	\$         108,084         \$         108,624         \$         109,167           5,000         1,648         1,656           1,380         388         1,340           \$         114,464         \$         110,660         \$         112,163           \$         90,997         \$         99,252         \$         104,569           45,303         45,090         44,878         144,095           6,500         101,229         144,095         144,095           *         142,800         \$         245,570         \$         293,542           \$         142,800         \$         245,570         \$         293,542           •         •         •         •         •         •           \$         108,084         \$         244,570         \$         293,542           •         •         •         •         •         •           \$         108,084         \$         244,404         \$         294,751           \$         108,084         \$         244,404         \$         294,751           \$         50%         50%         50%         50%         50%           \$	\$ 108,084       \$ 108,624       \$ 109,167       \$ 1,656         \$ 1,380       388       1,340       \$ 1,340         \$ 114,464       \$ 110,660       \$ 112,163       \$ \$         \$ 90,997       \$ 99,252       \$ 104,569       \$ \$         \$ 90,997       \$ 99,252       \$ 104,569       \$ \$         \$ 90,997       \$ 99,252       \$ 104,569       \$ \$         \$ 142,800       \$ 245,570       \$ 293,542       \$ \$         \$ 142,800       \$ 245,570       \$ 293,542       \$         \$ 108,084       \$ 244,404       \$ 294,751       \$         \$ 108,084       \$ 244,404       \$ 294,751       \$         \$ 108,084       \$ 244,404       \$ 294,751       \$         \$ 108,084       \$ 244,404       \$ 294,751       \$         \$ 108,084       \$ 244,404       \$ 294,751       \$         \$ 108,084       \$ 244,404       \$ 294,751       \$         \$ 100%       100%       100%       100%         \$ 100%       50%       50%       50%         \$ 100%       30%       50%       50%         \$ 100%       100%       30%       50%         \$ 100%       100%       50%	\$         108,084         \$         108,624         \$         109,167         \$         109,713           \$         108,084         \$         108,624         \$         109,167         \$         109,713           \$         114,464         \$         110,660         \$         112,163         \$         109,713           \$         90,997         \$         99,252         \$         104,569         \$         108,736           \$         90,997         \$         99,252         \$         104,569         \$         108,736           \$         90,997         \$         99,252         \$         104,569         \$         108,736           \$         90,997         \$         99,252         \$         104,569         \$         108,736           \$         90,997         \$         99,252         \$         104,569         \$         108,736           \$         90,997         \$         99,252         \$         104,695         \$         108,736           \$         142,800         \$         245,570         \$         293,542         \$         310,272           \$         108,084         \$         244,404         <	S         108,084         S         108,624         S         109,167         S         109,713         S           1,380         388         1,340         2,999         S         112,712         S           1,380         388         1,340         2,999         S         112,712         S           114,464         110,660         112,163         108,736         S         108,736         S           90,997         99,252         104,569         108,736         S         108,736         S           45,303         45,090         44,878         44,666         S         108,736         S           142,800         245,570         293,542         3         108,736         S           0.00%         12500%         20.00%         5.00%         3           0.00%         12500%         20.00%         5.00%         3           0.00%         12500%         20.00%         5.00%         3           108,084         244,404         294,751         3         311,036         S           50%         50%         50%         100%         100%         100%           100%         30%         50%         70%	S         108,084         S         108,624         S         109,167         S         109,713         S         110,262           5,000         1,648         1,656         1.99,167         S         109,713         S         110,262           1,380         388         1,340         2,999         3,494           \$         114,464         \$         110,660         \$         112,163         \$         112,712         \$         113,755           \$         90,997         \$         99,252         \$         104,569         \$         108,736         \$         112,692           45,303         45,090         44,878         44,666         44,453         6,500         101,229         144,095         156,871         169,768           5         142,800         \$         245,570         \$         293,542         \$         310,272         \$         326,913           0.00%         125.00%         20.00%         5.00%         2.00%         189,17%         \$         311,036         \$         318,844           (28,336)         870         244,404         \$         294,751         \$         311,036         \$         318,844         (25,3763)	\$         108,084         \$         108,624         \$         109,167         \$         109,713         \$         110,262         \$           \$         1,380         388         1,340         2,999         3,494         \$         110,262         \$           \$         114,464         \$         110,660         \$         112,163         \$         112,712         \$         113,755         \$           \$         90,997         \$         99,252         \$         104,569         \$         108,736         \$         112,692         \$           \$         90,997         \$         99,252         \$         104,569         \$         108,736         \$         112,692         \$           \$         90,997         \$         99,252         \$         104,569         \$         108,736         \$         112,692         \$           \$         90,997         \$         99,252         \$         104,659         \$         108,736         \$         112,692         \$           \$         142,800         \$         245,570         \$         293,542         \$         310,272         \$         326,913         \$           \$	\$         108,084         \$         108,624         \$         109,167         \$         109,713         \$         110,262         \$         110,813           \$         1,380         388         1,340         2,999         3,494         3,797           \$         114,464         \$         110,660         \$         112,163         \$         112,712         \$         113,755         \$         114,610           \$         90,997         \$         99,252         \$         104,569         \$         108,736         \$         112,692         \$         116,804           \$         90,997         \$         99,252         \$         104,569         \$         108,736         \$         112,692         \$         116,804           \$         90,997         \$         99,252         \$         104,569         \$         108,736         \$         112,692         \$         116,804           \$         90,997         \$         99,252         \$         104,569         \$         108,736         \$         112,692         \$         116,804           \$         90,907         \$         99,250         \$         310,272         \$         326,913 <td>\$ 108,084       \$ 108,624       \$ 109,167       \$ 109,713       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 110,813       \$ 109,173       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,814       \$ 10,804       \$ 110,804</td>	\$ 108,084       \$ 108,624       \$ 109,167       \$ 109,713       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,262       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 109,173       \$ 110,813       \$ 110,813       \$ 109,173       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,813       \$ 110,814       \$ 10,804       \$ 110,804

### Hartstene Pointe Wastewater

- \$169,000 System Rate Revenue
- \$160,000 Annual Operating Expenses
- No Existing Debt
- \$1.1 million in CIP projects (through 2016, escalated)
- \$864,000 projected revenue bond borrowing (\$776k proceeds)
- Current Rate \$34.50 per month
- 2007 budgeted \$10,000 contribution to capital reserve

## Hartstene Pointe Wastewater

Revenue Requirements		2007		2008	2009		2010	2011 2012		2013			
Revenues Rate Revenues Under Existing Rates Use of Connection Charges for Debt Non-Rate Revenues	\$	168,889 1,584 1,598	\$	169,733 532 1,675	\$ 170,582 535 1,992	\$	171,435 - 2,893	\$	172,292 3,105	\$	173,153 3,291	\$	174,019 - 3,357
Total Revenues	\$	172,071	\$	171,940	\$ 173,108	\$	174,328	\$	175,397	\$	176,444	\$	177,376
Expenses Cash O&M Expenses Existing Debt Service New Debt Service Rate Funded System Reinvestment Rate Funded CIP	\$	159,880 - 11,461 10,000	\$	169,650 36,195	\$ 176,540 - 61,236 -	S	182,877 66,551	\$	189,446 72,394	S	196,266 - 73,561 -	\$	203,347 74,788
Total Expenses	\$	181,341	\$	205,846	\$ 237,776	\$	249,428	\$	261,840	\$	269,828	\$	278,135
Annual Rate Adjustment Cumulative Rate Adjustment		0.00% 0.00%		25.00% 25.00%	13.00% 41.25%		3.00% 45.49%		3.00% 49.85%		3.00% 54.35%		3.00% 58.98%
Rate Revenues After Rate Increase Net Cash Flow After Rate Increase Monthly Rate	S	168,889 (9,269) \$34.50	S	212,166 8,528 \$43.13	\$ 240,947 5,697 \$48.73	S	249,416 2,881 \$50.19	\$	258,183 (552) \$51.70	S	267,258 721 \$53.25	\$	276,652 1,874 \$54.85
Policy Realization Connection Charges to Capital System Reinvestment Funding Coverage 1.25 All Debt		50% 100% 10%		50% 100% 30%	50% 100% 50%		100% 100% 70%		100% 100% 90%		100% 100% 100%		100% 100% 100%
Capital Funding		2007		2008	2009		2010		2011		2012		2013
Total Capital Projects	\$	283,019	\$	294,339	\$ 306,113	\$	60,833	\$	63,266	\$	13,159	\$	13,686
Use of Fund Balance Revenue Bond Proceeds Direct Rate Funding		154,508 128,510 -		16,992 277,347	 25,336 280,777	_	16,643 44,189		17,837 45,429		13,159		13,686
Total Funding Sources	\$	283,019	\$	294,339	\$ 306,113	\$	60,833	\$	63,266	\$	13,159	\$	13,686

### Consolidated Wastewater Rate Forecast

Revenue Requirements	2007	2008	2009	2010	2011	2012	2013
Revenues Rate Revenues Under Phased Rates Use of Connection Charges for Debt Non-Rate Revenues Total Revenues	\$ 1,772,442 - <u>15,253</u> <b>\$ 1,787,695</b>	\$ 2,007,200 	8,714	10,428	\$ 2,456,048 	12,334	12,495
Expenses Cash O&M Expenses Existing Debt Service New Debt Service Rate Funded System Reinvestment Rate Funded CIP Total Expenses	\$ 953,100 719,165 40,470 -		\$ 1,075,790 718,740 256,509 200,720	\$ 1,117,379 718,528 274,462 223,152		\$ 1,190,339 678,598 283,785 245,605 • • • • • • • • • •	\$ 1,228,769 678,598 283,443 247,794
Annual Rate Adjustment Cumulative Rate Adjustment	0.00% 0.00%		2.00% 0.00%	0.00% 0.00%	0.00% 0.00%	0.00% 0.00%	
Rate Revenues After Rate Increase Net Cash Flow After Rate Increase Total Coverage After Rate Increases*	\$ 1,772,442 74,959 1.11	\$ 2,007,200 (100,832) 1.09		\$ 2,434,182 111,090 1.35	\$ 2,456,048 68,791 1.32	\$ 2,477,944 91,951 1.36	\$ 2,499,870 73,760 1.35
Target Rate Annual % Increase North Bay Case Inlet Annual % Increase Rustlewood Annual % Increase Hartstene Pt. Annual % Increase	\$86.00 \$86.00 \$70.00 \$34.50	\$87.72 2.00% \$87.72 2.00% \$76.49 9.27% \$52.82 53.12%	\$89.47 2.00% \$82.98 8.49%	\$89.47 0.00% \$89.47 7.82%	0.00% \$89.47 0.00%	0.00% \$89.47 0.00%	0.00% \$89.47 0.00%

\* 3 year Coverage Policy phasing

### Consolidated Wastewater Capital Funding Forecast

Capital Funding	2007	2008	2009	2010	2011	2012	2013
Total Capital Projects	\$ 1,858,910	\$ 1,155,873	\$ 1,202,108	\$ 464,761	\$ 483,352	\$ 378,988	\$ 325,719
PWTF Loan Proceeds	1,300,000	-	-	-	-	-	-
Use of Capital Fund Balance	178,000	175,099	523,813	277,415	380,871	378,988	325,719
Revenue Bond Proceeds	380,910	980,774	678,295	187,347	102,481	-	-
Direct Rate Funding	-	-	-	 -	 -	 -	 -
Total Funding Sources	\$ 1,858,910	\$ 1,155,873	\$ 1,202,108	\$ 464,761	\$ 483,352	\$ 378,988	\$ 325,719

### **Potential Belfair Wastewater**

- Assumes \$16 million grant funds available
- Requires \$20.4 million in grants to project an \$86 monthly rate in 2010
- Customer base includes the Belfair UGA, excludes the North Shore area
- Based on March 2007 cost update
- Not yet incorporated into the Consolidation Scenario

Revenue Requirements	2007	2008	2009	<b>20</b> ′	10	2	2011	2012	2013
Expenditures Cash O&M Expenses New Debt Service Rate Funded System Reinvestment Additions to Fund Balance				62	0,638		371,833 617,514 20,000 214	\$ 383,384 613,754 40,000	\$ 398,137 609,994 60,000
Total Expenditures Monthly Rate				\$ 1,02	4,462 6,373 06.78		214 ,009,561 106.78	1,037,138	1,068,132 106.78

Capital Funding	2007	2008	2009	20 <sup>-</sup>	10 2	011	2012	2013
Total Capital Projects	\$ 1,872,000	\$ 16,440,320	\$ 8,880,137	\$	- \$	- \$	- \$	-
Grants and Developer Donations State Loan Proceeds	2,429,106	13,129,122 3,000,000	2,870,878 4,000,000		-	-	-	-
Revenue Bond Proceeds Total Funding Sources		<u>-</u> \$ 16,129,122	1,746,638	\$	- \$	- \$		<u> </u>

## Water

## **Beards Cove Water**

- \$171,000 System Rate Revenue
- \$137,000 Annual Operating Expenses
- No Existing Debt
- \$1 million in CIP projects (through 2016, escalated)
- \$930,000 projected revenue bond borrowing (\$841k proceeds)
- Current Rate \$27 per month

2007 Budgeted capital reserve addition of ~\$9,888

# **Beards Cove Water**

Revenue Requirements		2007		2008		2009		2010		2011		2012	2013
Revenues Rate Revenues Under Existing Rates Use of Connection Charges for Debt Non-Rate Revenues	\$	170,568 - 396	\$	171,421 - 591	\$	172,278 - 701	\$	173,139 - 837	\$	174,005 - 1,019	\$	174,875 - 1,199	\$ 175,749 - 1,682
Total Revenues	\$	170,964	\$	172,012	\$	172,979	\$	173,977	\$	175,024	\$	176,074	\$ 177,431
Expenses Cash O&M Expenses Existing Debt Service New Debt Service Rate Funded System Reinvestment Rate Funded CIP	S	136,976 - 9,888	\$	144,531 2,209 6,170	S	149,283 5,523 6,178	\$	154,208 - 10,096 5,996	5	159,576 15,789 5,429	\$	165,775 27,923 3,976	\$ 172,268 40,728 2,175
Total Expenses	\$	146,864	\$	152,910	\$	160,984	\$	170,301	\$	180,793	\$	197,674	\$ 215,171
Annual Rate Adjustment Cumulative Rate Adjustment		0.00% 0.00%		0.00% 0.00%		0.00% 0.00%		0.00% 0.00%		3.00% 3.00%		10.00% 13.30%	10.00% 24.63%
Rate Revenues After Rate Increase Net Cash Flow After Rate Increase Monthly Rate	\$	170,568 24,100 \$27.00	S	171,421 19,102 \$27.00	\$	172,278 11,995 \$27.00	S	173,139 3,676 \$27.00	\$	179,225 (549) \$27.81	0.7	198,133 1,659 \$30.59	\$ 219,037 5,547 \$33.65
Policy Realization Connection Charges to Capital System Reinvestment Funding Coverage 1.25 All Debt		100% 100% 100%		100% 100% 100%		100% 100% 100%		100% 100% 100%		100% 100% 100%		100% 100% 100%	100% 100% 100%
Capital Funding		2007		2008		2009		2010		2011		2012	2013
Total Escalated Capital Projects	\$	60,029	\$	62,430	\$	64,927	\$	67,524	\$	70,225	\$	132,251	\$ 137,541
Use of Fund Balance Revenue Bond Proceeds Direct Rate Funding		60,029 - -		37,659 24,771		27,775 37,153		20,687 46,838		11,927 58,298		7,994 124,257	 6,415 131,126 -
Total Funding Sources	\$	60,029	\$	62,430	\$	64,927	\$	67,524	\$	70,225	\$	132,251	\$ 137,54 <b>3</b> 7

### Hartstene Pointe Water

- \$108,648 System Rate Revenue
- \$106,500 Annual Operating Expenses
- No Existing Debt
- \$832,000 in CIP projects (through 2016, escalated)
- \$701,000 projected revenue bond borrowing (\$628k proceeds)
- Current Rate \$21.50 per month
- 2007 budgeted \$5,834 contribution to capital reserve

### Hartstene Pointe Water

Revenue Requirements		2007	2008		2009		2010	2011		2012		2013
Revenues Rate Revenues Under Existing Rates Use of Connection Charges for Debt Non-Rate Revenues	S	108,648 - 222	\$ 109,192 - 102	S	109,738 - 716	S	110,286 - 1,310	\$ 110,838 - 1,508	\$	111,392 - 1,693	S	111,949 - 1,883
Total Revenues	\$	108,870	\$ 109,294	\$	110,453	\$	111,596	\$ 112,346	\$	113,085	\$	113,832
Expenses Cash O&M Expenses Existing Debt Service New Debt Service Rate Funded System Reinvestment Rate Funded CIP	S	106,452 - 495 5,834	\$ 111,039 - 11,260 969	\$	115,409 - 23,410 -	S	119,772 - 28,601 -	\$ 124,241 33,401	\$	128,892 - 38,304 -	\$	133,733 - 43,302 -
Total Expenses	\$	112,781	\$ 123,268	\$	138,819	\$	148,373	\$ 157,642	\$	167,196	\$	177,035
Annual Rate Adjustment Cumulative Rate Adjustment		0.00% 0.00%	19.00% 19.00%		10.00% 30.90%		7.00% 40.06%	6.00% 48.47%		6.00% 57.37%		6.00% 66.82%
Rate Revenues After Rate Increase Net Cash Flow After Rate Increase Monthly Rate	\$	108,648 (3,911) \$21.50	129,938 6,772 \$25.59	\$	143,646 5,543 \$28.14	S	154,470 7,407 \$30.11	\$ 164,557 8,423 \$31.92	S	175,303 9,800 \$33.84	\$	186,750 11,598 \$35.87
Policy Realization Connection Charges to Capital System Reinvestment Funding Coverage 1.25 All Debt		100% 100% 10%	100% 100% 30%		100% 100% 50%		100% 100% 70%	100% 100% 90%		100% 100% 100%		100% 100% 100%
Capital Funding		2007	2008		2009		2010	2011		2012		2013
Total Escalated Capital Projects	\$	127,989	\$ 133,109	\$	138,433	\$	54,749	\$ 56,939	\$	59,217	\$	61,586
Use of Fund Balance Revenue Bond Proceeds Direct Rate Funding		122,440 5,550	12,401 120,708		2,193 136,240		1,588 53,161 -	7,787 49,153 -		9,006 50,210		10,412 51,174
Total Funding Sources	\$	127,989	\$ 133,109	\$	138,433	\$	54,749	\$ 56,939	\$	59,217	\$	<mark>61,588</mark> 9

### **Rustlewood Water**

- \$33,668 System Rate Revenue
- \$44,800 Annual Operating Expenses
- No Existing Debt
- \$718,000 in CIP projects (through 2016, escalated)
- \$731,000 projected revenue bond borrowing (\$653k proceeds)
- Current Rate \$20 per month
- There is no Rustlewood capital reserve

# **Rustlewood Water**

Revenue Requirements		2007		2008		2009		2010		2011		2012		2013
Revenues Rate Revenues Under Existing Rates Use of Connection Charges for Debt Non-Rate Revenues	\$	33,668 - 500	\$	33,837 - 129	\$	34,006 - 197	S	34,176 - 298	\$	34,347 - 402	\$	34,518 - 482	\$	34,691 - 867
Total Revenues	\$	34,168	\$	33,965	\$	34,203	\$	34,474	\$	34,748	\$	35,000	\$	35,558
Expenses Cash O&M Expenses Existing Debt Service New Debt Service Rate Funded System Reinvestment Rate Funded CIP	S	44,764 - - -	\$	47,033 1,527 219	S	48,791 - 3,311 -	S	50,623 - 5,374	\$	52,518 7,459	\$	55,052 18,258	S	57,660 - 29,248 -
Total Expenses	\$	44,764	\$	48,779	\$	52,102	\$	55,998	\$	59,977	\$	73,310	\$	86,908
Annual Rate Adjustment Cumulative Rate Adjustment		0.00% 0.00%		45.00% 45.00%		7.50% 55.88%		7.50% 67.57%		7.00% 79.30%		25.00% 124.12%		20.00% 168.94%
Rate Revenues After Rate Increase Net Cash Flow After Rate Increase Monthly Rate	\$	33,668 (10,596) \$20.00	\$	49,063 413 \$29.00	S	53,007 1,101 \$31.18	S	57,267 1,567 \$33.51	\$	61,582 2,006 \$35.86	\$	77,363 4,534 \$44.82	\$	93,299 7,259 \$53.79
Policy Realization Connection Charges to Capital System Reinvestment Funding Coverage 1.25 All Debt		100% 100% 10%		100% 100% 30%		100% 100% 50%		100% 100% 70%		100% 100% 90%		100% 100% 100%		100% 100% 100%
Capital Funding		2007		2008		2009		2010		2011	i	2012		2013
Total Capital Projects	\$	19,469	\$	20,248	\$	21,057	\$	21,900	\$	22,776	\$	113,170	\$	117,697
Use of Capital Fund Balance Revenue Bond Proceeds Direct Rate Funding	\$	19,469 - - 19,469	\$	3,125 17,123 20,248	¢	1,056 20,001 	\$	768 21,131 	¢	1,425 21,351 <b>22,776</b>	\$	2,587 110,583 	\$	5,151 112,546 <b>117,697</b>
Total Funding Sources	Ф	19,409	Þ	20,248	Þ	21,037	Þ	21,900	Ф	22,116	Þ	113,170	Þ	117,097

#### Consolidated Water Rate Forecast

Revenue Requirements		2007		2008		2009		2010		2011		2012		2013
Revenues Rate Revenues Under Phased Rates Operating Fund & Debt Reserve Fund In	\$	312,884	\$	359,366	\$	377,675	\$	404,153	\$	406,174	\$	408,205	\$	410,246
Non-Rate Revenues Total Revenues	\$	5,644 318,528	\$	6,706 366,072	\$	2,357 380.032	\$	2,365 406,518	\$	2,680 408,854	\$	3,070 411,275	\$	3,998 414,244
Expenses	Ŷ	510,520	Ψ	300,012	Ŷ	300,032	Ψ	400,510	Ŷ	400,004	Ŷ	411,213	Ŷ	414,244
Cash O&M Expenses Existing Debt Service	\$	288,193	\$	303,014	\$	313,884	\$	325,533	\$	337,561	\$	350,617	\$	364,265
New Debt Service Rate Funded System Reinvestment Rate Funded CIP		11,816		29,989 31,288		34,225 35,937		44,092 37,767		54,800 40,415		80,366 40,617		107,093 43,270
Total Expenses	\$	300,008	\$	364,291	\$	384,046	\$	407,392	\$	432,776	\$	471,601	\$	514,629
Annual Rate Adjustment Cumulative Rate Adjustment		0.00% 0.00%		3.00% 0.00%		3.00% 0.00%		6.48% 0.00%		6.00% 6.00%		8.50% 15.01%		8.50% 24.79%
Rate Revenues After Rate Increase Net Cash Flow After Rate Increase Total Coverage After Rate Increases	S	312,884 18,520 2.79	\$	359,366 1,781 2.12	\$	377,675 (4,013) 2.11	\$	404,153 (874) 1.87	\$	430,544 448 1.77	\$	469,476 945 1.54	\$	511,929 1,298 1.43
Target Rate Annual % Increase		\$27.00		\$27.81 3.00%		\$28.64 3.00%		\$30.50 6.48%		\$32.33 6.00%		\$35.08 8.50%		\$38.06 8.50%
Beards Cove Annual % Increase		\$27.00	•	\$27.81 <u>3.00%</u>	•	\$28.64 3.00%		\$30.50 6.48%	•	\$32.33 6.00%	•	\$35.08 8.50%	•	\$38.06 8.50%
Rustlewood Annual % Increase		\$20.00	•	\$27.00 35.00%		\$28.64 6.09%		\$30.50 6.48%	•	\$32.33 6.00%	•	\$35.08 8.50%	•	\$38.06 8.50%
Hartstene Pt. Annual % Increase		\$21.50		\$27.00 25.58%		\$28.64 <mark>6.09%</mark>		\$30.50 6.48%	•	\$32.33 6.00%	•	\$35.08 <mark>8.50%</mark>		\$38.06 8.50%
* No policy phasing														

### Consolidated Water Capital Funding Forecast

Capital Funding	2007	2008		2009		2010		2011		2012	2013		
Total Escalated Capital Projects	\$ 207,487	\$	215,786	\$	224,418	\$	144,173	\$	149,940	\$ 304,638	\$	316,824	
Use of Fund Balance Revenue Bond Proceeds	75,000 132,487		12,006 203,780		176,918 47,500		43,134 101,040		40,282 109,658	42,830 261,808		43,121 273,702	
Direct Rate Funding Total Funding Sources	\$ 207,487	\$	215,786	\$	224,418	\$	144,173	\$	149,940	\$ 304,638	\$	316,824	

# Landfill

# Landfill

- \$3.1 million System Rate Revenue
- \$3.0 million Annual Operating Expenses
- No Existing Debt
- \$4.3 million in CIP projects (through 2011, escalated) – assumed appropriate for 20-year term debt
  - \$192,000 in grants assumed to fund projects -\$55,000 budgeted 2007, grants assumed available in future years declining 10% each years.

### Landfill (CONTINUED)

\$3.8 million in projected revenue bond borrowing (\$3.4 million proceeds)

Assumed minimum fund balance, 45 days of working capital, phased in over three years. Beginning 2007 fund balance of \$150,000 represents 5% of 2007 operating costs, or 18 days of working capital. 2007 Y-E working capital projection is 28 days.

# Landfill

Revenue Requirements	2007	2008	2009	2010	2011	2012	2013
Revenues							
Rate Revenues Under Existing Rates	\$ 3,100,060	\$ 3,193,062	\$ 3,288,854	\$ 3,387,519	\$ 3,489,145	\$ 3,593,819	\$ 3,701,634
Non-Rate Revenues	5,250	8,034	13,182	18,758	23,721	29,758	31,882
Total Revenues	\$ 3,105,310	\$ 3,201,095	\$ 3,302,036	\$ 3,406,277	\$ 3,512,866	\$ 3,623,577	\$ 3,733,516
Expenses							
Cash O&M Expenses	\$ 3,025,776	\$ 3,227,318	\$ 3,336,518	\$ 3,449,670	\$ 3,566,930	\$ 3,688,460	\$ 3,814,431
Existing Debt Service	-	. <del></del>	-	-	-	<u>1</u> -	-
New Debt Service	15	91,187	218,756	306,696	310,154	310,154	310,154
Rate Funded System Reinvestment	5 <b>-</b>	2,296	-	-	-	-	-
Rate Funded CIP						<u></u>	
Total Expenses	\$ 3,025,776	\$ 3,320,801	\$ 3,555,274	\$ 3,756,366	\$ 3,877,084	\$ 3,998,614	\$ 4,124,585
Annual Rate Adjustment	0.00%	5.50%	3.00%	3.00%	3.00%	3.00%	3.00%
Cumulative Rate Adjustment	0.00%	5.50%	8.66%	11.92%	15.28%	18.74%	22.30%
Rate Revenues After Rate Increase	\$ 3,100,060	\$ 3,368,680	\$ 3,573,833	\$ 3,791,479	\$ 4,022,380	\$ 4,267,343	\$ 4,527,224
Net Cash Flow After Rate Increase	79,534	55,913	31,741	53,872	169,018	298,487	434,521

Capital Funding	2007	2008	2009	2010		2011		2012	2013
Total Capital Projects	\$ 402,355	\$ 1,430,827	\$ 1,490,400	\$ 941,689	\$	35,429	\$		\$ 
Grants - DOE CPG	55,722	50,150	45,135	40,621		-			25.
Use of Fund Balance	346,633	358,202	14,833	519		18			-
Revenue Bond Proceeds	2.75	1,022,475	1,430,432	900,549		35,411			-
Direct Rate Funding	( <u> </u>	-	-	 -		-			
Total Funding Sources	\$ 402,355	\$ 1,430,827	\$ 1,490,400	\$ 941,689	\$	35,429	\$	1	\$ -
Revenue Bond Issuances	\$ -	s -	<b>\$</b> -	\$ -	S	-	S		\$ 

#### **Financial Conclusions & Recommendations**

Consolidate into comprehensive water and comprehensive sewer utilities

- Merge rates through phased approach
- Consolidate funds
  - One operating, capital reserve and debt fund for water and one of each for sewer
- Implement reasonable fiscal policies
  - Phase in over time

Implement 2008 recommended rate levels for each utility