



1925 Palomar Oaks Way, Suite 300
Carlsbad, California 92008
tel: 760 438-7755
fax: 760 438-7411

August 12, 2011

Dennis Davies
Deputy Director of Public Works
200 Civic Center Way
El Cajon, CA 92020

Subject: Six-Year Revenue Plan and Cost of Service Rates

Dear Mr. Davies:

This letter report summarizes the methodology and assumptions behind the development of a 6-year revenue plan and FY 2012 cost of service (COS) rates for the City of El Cajon's (City) wastewater system. The revenue plan clearly illustrates El Cajon's ability to repay a State Revolving Loan for construction of the Johnson Avenue Trunk Line/Interceptor project. To develop the revenue plan and COS rates, we held discussions with City staff and gathered the following information:

- FY 2011 billing data
- FY 2010 Hauled waste volumes
- FY 2011 rate schedule and ordinance
- 5-year business plan FY 2012
- 5-year capital improvement program (CIP)
- CAFR for FY 2009 and FY 2010
- Proposed budget FY 2012
- Bills from the City of San Diego

Revenue Plan

To facilitate the City's efforts to plan for future costs, we developed a six-year revenue plan. This plan allows the City to see today's costs as well as future expenditures so that rate adjustments can be made with a view to future programs and plans. The City's last rate



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increase was July 1999. Since then inflation in the San Diego area has increased over 40 percent. Therefore, while costs have been increasing, revenues have only increased when consumption has increased (either from increased usage per account or increase in the number of accounts).

Customers and Usage

Between May 2010 and April 2011, the City had approximately 16,360 non-exempt wastewater accounts and 14 septic waste haulers. Approximately 80 percent of those accounts are single family residential customers. The other accounts are multi-family residential, commercial low strength, commercial medium strength, and commercial high strength. The strength of an individual commercial customer is determined by its Standard Industrial Classification (SIC).

The revenue plan assumes 1 percent per year growth in the number of residential customers and no growth for other customer classes. During that same period, the City billed for 4.1 million hundred cubic feet (hcf) from its wastewater customers and approximately 14 million gallons from its septic haulers. The revenue plan assumes 1 percent per year growth in the residential discharge and no increase for other customer classes.

Revenue

CDM estimated revenues at current rates for the projection. The nominal, \$0.50 per month (\$1.00 per bill) administrative charge results in approximately \$98,200 in revenue. Volume charges result in approximately \$11 million in annual revenue.

The City's wastewater department generates additional revenue from investment earnings, and miscellaneous National Pollutant Discharge Elimination System (NPDES) fees and charges. For projection purposes, we have assumed that non-investment related revenues will increase at 3 percent per year. Investment earnings are estimated at 2.5 percent of the average operating fund balance.

Operation and Maintenance

Operation and Maintenance (O&M) costs related to salaries and benefits, materials, services, and supplies are allocated to disposal, maintenance, customer service, sweeping maintenance, NPDES (stormwater services), and equipment/IT. The major component (66 percent) of O&M costs is the payment to the City of San Diego for transportation and treatment of wastewater collected by the City. Salaries and benefits account for 21 percent of O&M costs.

In addition to O&M costs, the City also has annual capital outlays associated with each of the cost categories listed above. These annual capital outlays range from a few thousand dollars to a few hundred thousand dollars.



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Capital Improvements

The City also has a capital improvement program (CIP) for larger capital projects. While these projects have been funded with cash in the past, the City intends to seek a State Revolving Fund (SRF) loan to help pay for the Johnson Avenue Trunk Line/Interceptor project. Table 1 shows the 6-year CIP. The CIP is between \$2-\$3 million a year during this period, except for FY 2013 due to the Johnson Avenue Sewer Trunk Line project. CDM estimated FY 2017 capital expenditures at \$2.5 million.

Table 1. 6-Year CIP

Capital Projects	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Funded						
C-25 Drainage Channel Fencing	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	
C-26 Sewer & Storm Drain Repair & Replacement	\$775,000	\$1,000,000	\$700,000	\$1,000,000	\$1,000,000	
C-27 Sewer System Inspection & Rehabilitation	\$530,000	\$325,000	\$325,000	\$325,000	\$325,000	
C-28 Water Quality Improvements	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	
C-29 Johnson Avenue Sewer Trunk Lines/Interceptor	\$466,358	\$7,500,000				
C-30 Drainage Master Plan	\$400,556					
C-31 Channel Repair		\$50,000	\$50,000	\$50,000	\$50,000	
C-32 Blackthorne Sewer Replacement		\$80,000	\$720,000			
C-33 Asset Management Plan		\$150,000				
C-34 Madison Avenue Sewer Replacement			\$100,000	\$820,000		
C-35 Marshall & Arnele Sewer Replacement			\$20,000	\$265,000		
C-36 Mollison Avenue Sewer Replacement				\$130,000	\$1,250,000	
Unfunded						
C-58 Parking Lot Maintenance						
C-66 Emergency Generator-Public Works Maintenance						
C-75 Public Works and Fleet Maintenance Renovations			\$40,000	\$250,000		
C-85 Animal Shelter		\$180,000				
Other						
Chaparral High School Storm Drain Relocation	\$336,300					
Modifications to Sweeper Cleanout Station	\$23,000					
Sewer Plant Demolition	\$45,300					
City CIP Projects	\$51,400					
Estimated 2017						\$2,500,000
Total	\$2,687,914	\$9,345,000	\$2,015,000	\$2,900,000	\$2,685,000	\$2,500,000

We have assumed that the Johnson Avenue project will be funded with SRF loan money. We have assumed a 20-year term with an annual interest rate of 3.75 percent. The actual interest rate will be determined at the time of Preliminary Funding Commitment and will be ½ of the most recent general obligation bond rate. The remaining projects in the CIP are presumed to be cash funded.

In addition to the CIP, the City has an obligation to pay the City of San Diego for a portion of the costs related to the new sewer interceptor in Mission Gorge used to convey the City's



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wastewater to the Point Loma Treatment Plant. While the amount owed has not been finalized, we have assumed an amount of \$11,038,654. This represents an estimate of the City's share of costs for interceptors built by the City of San Diego. We have also assumed that the City of San Diego would agree to finance the amount owed over a 10 year period at a 4.5 percent interest rate.

Cashflow

Table 2 presents the 6-year revenue plan. This plan is designed to bring the City back to operating in the black and generating sufficient revenue to cover the costs of providing wastewater service to its customers.

Under this plan, the City would need to adopt a 33 percent rate increase on January 1, 2012. This initial rate increase is to help make up for the lack of cost of living adjustments to the rates over the last 10 years. The next rate increase of 9 percent would be on July 1, 2013 (the beginning of FY 2014). Annual rate adjustments would then occur at the beginning of the next three fiscal years at 9 percent.

This combination of City of San Diego financing of the City's portion of interceptor project costs and drawdown of the cash reserves, allows the City to minimize the rate increases needed to:

- 1) get the City's wastewater utility back on solid footing,
- 2) in a position to apply for SRF loan funds, and
- 3) be able to pay back those loan funds.



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Table 2. 6-Year Revenue Plan

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Billed WW User Charges Under Current Rates [1]							
Single Family Residential	3,487,030	3,521,900	3,557,113	3,592,684	3,628,606	3,664,887	3,701,534
Multi-Family Residential	3,965,528	4,005,182	4,045,231	4,085,687	4,126,546	4,167,811	4,209,488
Commercial-Low Strength	1,448,280	1,448,280	1,448,280	1,448,280	1,448,280	1,448,280	1,448,280
Commercial-Medium Strength	462,958	462,958	462,958	462,958	462,958	462,958	462,958
Commercial-High Strength	772,630	772,630	772,630	772,630	772,630	772,630	772,630
Septic Haul Revenue	993,930	993,928	993,928	993,928	993,928	993,928	993,928
Total WW Billed Charges Under Current Rates	11,130,355	11,204,877	11,280,140	11,356,167	11,432,948	11,510,494	11,588,818
User Charge Revenue Adjustment:							
<u>Year</u>	<u>Adjustment</u>	<u>Effective</u>					
2011	0.0%	12	0	0	0	0	0
2012	33.0%	6	1,848,800	3,722,400	3,747,500	3,798,500	3,824,300
2013	0.0%	12		0	0	0	0
2014	9.0%	12		1,359,300	1,368,500	1,377,800	1,387,200
2015	9.0%	12			1,491,700	1,501,800	1,512,000
2016	9.0%	12				1,637,000	1,648,100
2017	9.0%	12					1,796,400
WW User Charge Revenue Adjustment	0	1,848,800	3,722,400	5,106,800	6,633,100	8,315,100	10,168,000
Total Billed WW User Charge Revenue	11,130,355	13,053,677	15,002,540	16,462,967	18,066,048	19,825,594	21,756,818
Miscellaneous Income [2]	586,700	476,500	629,322	472,149	380,783	308,087	239,607
Reimbursement - CIP Projects		168,150	0	0	0	0	0
Total Revenue	11,717,055	13,698,327	15,631,862	16,935,116	18,446,831	20,133,682	21,996,425
Revenue Requirements							
Operation and Maintenance Expense	14,691,707	14,937,388	15,287,630	15,647,400	16,016,975	16,396,639	16,786,684
Debt Service							
Proposed Debt	0	0	0	573,276	573,276	573,276	573,276
Capital Outlay	548,295	176,900	182,207	187,673	193,303	199,103	205,076
Capital Payment to San Diego	0	0	1,395,052	1,395,052	1,395,052	1,395,052	1,395,052
Transfers from:							
Operating Fund	\$5,730,537	\$3,100,000	\$1,804,948	\$2,104,948	\$2,804,948	\$2,604,948	\$2,504,948
Capital Fund		\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue Requirements	20,970,539	18,214,288	18,669,837	19,908,349	20,983,554	21,169,017	21,465,035
Annual Surplus (Deficiency)	(9,253,484)	(4,515,961)	(3,037,975)	(2,973,233)	(2,536,723)	(1,035,336)	531,390
Beginning of Year Balance	26,124,508	16,871,024	12,355,063	9,317,088	6,343,855	3,807,131	2,771,796
End of Year Balance	16,871,024	12,355,063	9,317,088	6,343,855	3,807,131	2,771,796	3,303,185
Target Working Capital Balance [3]	2,415,075	2,455,461	2,513,035	2,572,175	2,632,927	2,695,338	2,759,455
Target Emergency Fund Balance	500,000	500,000	500,000	500,000	500,000	500,000	500,001
Total Target Reserves	2,915,075	2,955,461	3,013,035	3,072,175	3,132,927	3,195,338	3,259,456
Debt Service Coverage	NA	NA	NA	225%	424%	652%	909%

[1] Calculated using the existing sewer rates.

[2] Includes licenses and permits, investment earnings, and NPDES fees and charges.

[3] 60 days of O&M expenses.



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Cost of Service (COS) Rates

Using FY 2012 budgeted expenditures, estimated concentration levels for COD and SS by customer class, and engineering judgment, we developed cost of service rates for the City. In developing the rates, we developed an equivalent number of multi-family units on a single family residential basis. The first unit in a multi-family unit is weighted 100 percent while all subsequent units are weighted at 50 percent. This gives us an adjusted number of multi-family accounts of 10,656 for determining the COS unit rate and revenue. In terms of billing, the first unit in a multi-family unit would be charged the full fixed service charge while all additional units would be charged 50 percent of the fixed charge. Under the City's current billing system, a family living in a single family dwelling pays 13 times more on average than a family living in a multi-family dwelling unit for NPDES services. By charging each additional multi-family dwelling unit 50 percent of the fixed charge that inequity will be eliminated and all dwelling units in the City will be paying their cost of service for NPDES services.

The current administrative fee is designed to recover the costs associated with NPDES. Therefore, in the cost allocation we assigned costs associated with NPDES to the customer category. This results in a fixed cost of service of \$4.75 per month instead of \$0.50 per month, indicating that the current administrative fee does not fully recover the costs associated with NPDES. Table 3 shows the COS rate versus the existing rate and that fixed costs are under recovered by 93 percent.

Table 3. Comparison of FY 2012 COS and Existing Fixed Charge

Customer Class	COS Charge, \$/mo	Revenue Under COS Rates, \$	Existing Rate, \$/mo	Revenue Under Existing Rates, \$	Percent Over/(Under), %
Single Family	\$4.75	\$769,274	\$0.50	\$80,898	-89%
Multi-Family	\$4.75	\$607,979	\$0.50	\$8,730	-99%
Com. Low	\$4.75	\$66,583	\$0.50	\$7,002	-89%
Com. Med.	\$4.75	\$5,306	\$0.50	\$558	-89%
Com. High	\$4.75	\$17,858	\$0.50	\$1,878	-89%
Septic Haulers	\$4.75	\$799	\$0.00	\$0	
Total		\$1,467,800		\$99,066	-93%

Table 4 shows that the existing volume rates under-recover the costs associated with providing wastewater service by 17 percent.



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Table 4. Comparison of FY 2012 COS and Existing Volume Charge

Customer Class	COS Rate, \$/hcf	Revenue Under COS Rates, \$	Existing Rate, \$/mo	Revenue Under Existing Rates, \$	Percent Over/(Under), %
Single Family	\$3.16	\$4,275,810	\$2.54	\$3,441,002	-20%
Multi-Family - D	\$2.78	\$4,270,059	\$2.22	\$3,414,131	-20%
Multi-Family - ND	\$3.15	\$722,997	\$2.54	\$582,320	-19%
Com. Low - D	\$2.52	\$1,593,823	\$2.09	\$1,319,517	-17%
Com. Low - ND	\$3.16	\$148,198	\$2.60	\$121,761	-18%
Com. Med - D.	\$2.97	\$487,902	\$2.44	\$400,162	-18%
Com. Med - ND	\$4.11	\$76,822	\$3.33	\$62,238	-19%
Com. High - D	\$5.14	\$675,486	\$3.90	\$512,343	-24%
Com. High - ND	\$5.64	\$339,027	\$4.30	\$258,409	-24%
Septic Haulers	\$5.98/100 gal	\$844,578	\$7.04/100 gal	\$993,928	18%
Total		\$13,434,700		\$11,105,811	-17%

Based on the results of the COS analysis, we developed two sets of rates. The first keeps the administrative charge at \$0.50/month and increases the volume charges to recover the additional fixed costs. The second sets the fixed charge at \$4.00 a month, a considerable movement toward COS. Table 5 presents the two rate structure alternatives and compares the revenue generated by each. Under Alternative 1, the minimum charge would remain, but the tier point would change from approximately 9.1 hcf/bi-month to 6.6 hcf/bi-month to result in the same \$24 minimum bill. Under Alternative 2, the minimum charge would be eliminated. For both alternatives, the maximum bill would be based on approximately 42 hcf/bi-month.

Table 5 also compares the revenues under the alternative rates to the revenues under the existing rates. Under either alternative, the total revenues would be similar, but alternative 2 collects a larger portion of revenue from the fixed charge based on the COS analysis.

Figure 1 shows a comparison of the single family residential (SFR) bills at various bi-monthly billing levels. Alternative 1 shows that the minimum bill would stay at \$24.23. This equates to a new tier point of approximately 6.6 hcf of bi-monthly water usage instead of 9.1 hcf. The maximum bill would still be triggered at the second tier point of approximately 42 hcf / bi-monthly usage. Alternative 2, with the higher fixed charge, would eliminate the minimum bill but would maintain the maximum tier point at approximately 42 hcf/bi-monthly usage. By eliminating the minimum bill under Alternative 2, potentially 1,100 low volume user accounts would have a lower bill.



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Table 5. Comparison of the Two Proposed Rates and of the Proposed Rate Revenue to Existing Revenue

Customer Class	COS Rate	Alt 1 Unit Rate	Alt 2 Unit Rate	Revenue, Existing Rates, \$	Revenue, Atl 1, \$	Revenue, Atl 2, \$
Fixed Charge						
Single Family	\$4.75/mo	\$0.50/mo	\$4.00/mo	\$80,898	\$80,898	\$647,184
Multi-Family	\$4.75/mo	\$0.50/mo	\$4.00/mo	\$8,730	\$63,936	\$511,488
Com. Low	\$4.75/mo	\$0.50/mo	\$4.00/mo	\$7,002	\$7,002	\$56,016
Com. Med.	\$4.75/mo	\$0.50/mo	\$4.00/mo	\$558	\$558	\$4,464
Com. High	\$4.75/mo	\$0.50/mo	\$4.00 /mo	\$1,878	\$1,878	\$15,024
Septic Haulers	\$4.75/mo	\$0.00/mo	\$0.00/mo	\$0	\$0	\$0
Total Fixed Rev.				\$99,066	\$154,272	\$1,234,176
Volume Charge						
Single Family	\$3.16 /hcf	\$3.51/hcf	\$3.18/hcf	\$3,441,002	\$4,755,085	\$4,308,026
Multi-Family – D	\$2.78/hcf	\$3.00/hcf	\$2.78/hcf	\$3,414,131	\$4,613,691	\$4,275,354
Multi-Family – ND	\$3.15/hcf	\$3.51/hcf	\$3.18/hcf	\$582,320	\$804,703	\$729,047
Com. Low - D	\$2.52/hcf	\$2.75/hcf	\$2.60/hcf	\$1,319,517	\$1,736,207	\$1,641,505
Com. Low - ND	\$3.16/hcf	\$3.51/hcf	\$3.18/hcf	\$121,761	\$164,377	\$148,923
Com. Med - D.	\$2.97/hcf	\$3.41/hcf	\$3.05/hcf	\$400,162	\$559,243	\$500,203
Com. Med - ND	\$4.11/hcf	\$4.51/hcf	\$4.17/hcf	\$62,238	\$84,292	\$77,937
Com. High - D	\$5.14/hcf	\$5.26/hcf	\$5.05/hcf	\$512,343	\$691,006	\$663,419
Com. High - ND	\$5.64/hcf	\$5.75/hcf	\$5.55/hcf	\$258,409	\$345,546	\$333,527
Septic Haulers	\$5.98/100 gal	\$7.04/100 gal	\$7.04/100 gal	\$993,928	\$993,928	\$993,928
Total Volume Rev.				\$11,105,811	\$14,748,078	\$13,671,868
Total Revenue				\$11,204,877	\$14,902,350	\$14,906,044

We also conducted a survey of wastewater rates for other southern California communities. Figure 2 graphically displays the estimated monthly bill for each of the communities as well as for the City under its current rate and the Alternative 2 rate for FY 2012. The monthly bill presumes 9.5 hcf of flow during the monthly period. The City's wastewater bill is among the lowest of peer communities and will remain at the low end even with the proposed adjustment.



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Figure 1. Comparison of Bi-Monthly Bills - SFR

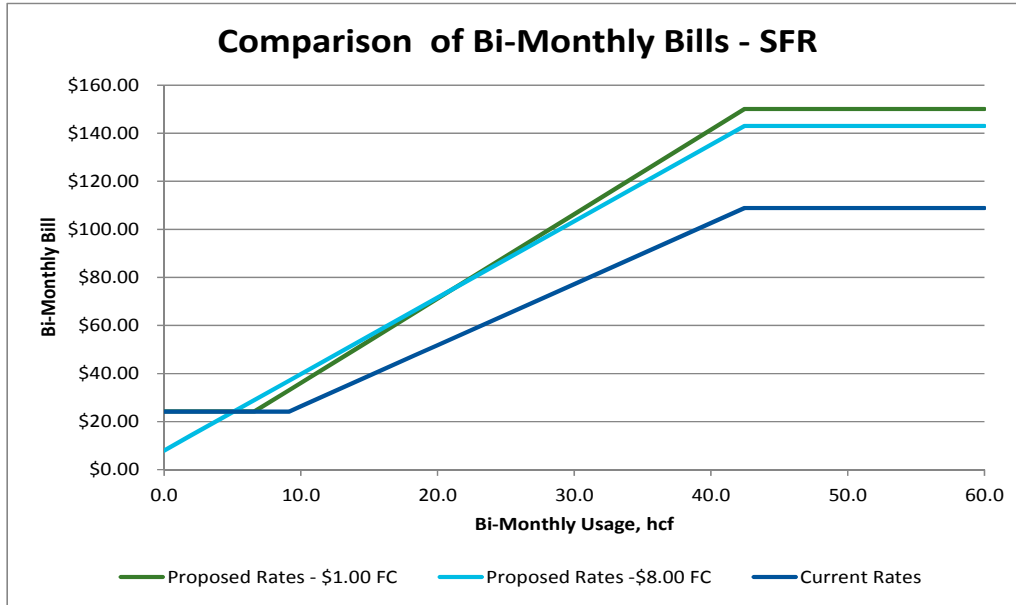
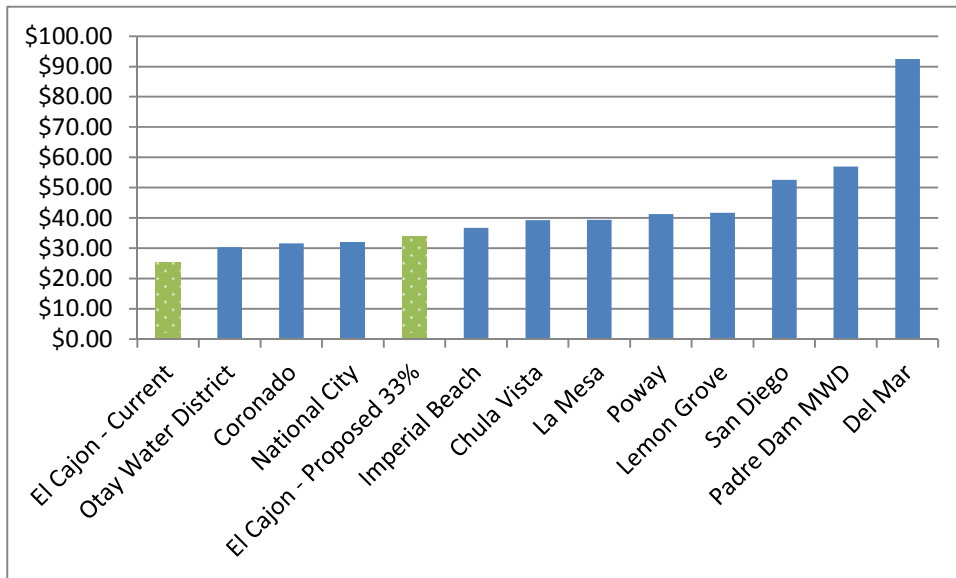


Figure 2. Comparison of Monthly Sewer Bills Assuming 9.5 hcf of Usage per Month





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Recommendation

CDM recommends adopting a fixed charge that recovers the costs associated with the NPDES since the \$1.00 per bill charge the City currently has was originally designed to recover NPDES costs. The NPDES costs represent the minimum fixed costs that the City incurs by providing wastewater services to its customers. By not recovering these costs through a fixed charge, cost recovery becomes subject to the volatility associated with volume charges. Wastewater discharge is dependent on the amount of water consumed. Weather and the economy can significantly impact water consumption, and wastewater discharge, particularly for residential customers. Therefore, by shifting more revenues into fixed cost recovery, the revenue stream of the City's wastewater utility becomes more stable.

Because the Septic Disposal Hauler rate is already close to cost of service we recommend holding the rate constant next year. Furthermore, we suggest future adjustments to the Septic Disposal Hauler rate take into account similar rates at other agencies. Since waste haulers have the option of disposing their waste at more than one location it is important for El Cajon to remain competitive and protect its current revenue stream from such haulers totaling close to \$1 million per year.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Jake Boomhouwer', written over a thin blue line.

Jake Boomhouwer, P.E.
Vice President
Camp Dresser & McKee Inc.

cc: Randy Hill