

Draft 12/02/08

C-Ville Water Worst Case Scenario - Safe Yield Estimated at 19.1 mgd	C-Ville Water Estimate	Possible Source for CVW Estimate	Cited Amount	Adjust for Inflation (2008 \$)	JBW Review			Notes:
					(If not included in line item) 20% for Engineering, Permitting and Construction Management.	(If not included in line item) 25% for Contingences	Estimated 2008 Value	
Increase existing Ragged Mountain Dam by 13 feet	\$11,000,000	GF April 6, 2005 Memo RE: Ragged Mt Dam	\$ 11,055,000	\$ 12,259,160			\$ 12,259,160	
Restoration Dredging of SFRR	\$30,000,000	2-million CY, thus assume CVW estimate at \$15/cy	\$ 30,000,000	\$ 30,000,000		\$ 7,500,000	\$ 37,500,000	2001 VHB study, page 13, adjusted for inflation, dredging cost estimate \$15 to \$30/cy
Build SFRR sediment traps; and periodically dredge them for 50 years	\$21,000,000	VHB 2001 Study, page 9 \$15/CY assumption	\$ 464,000	\$ 514,540		\$ 128,635	\$ 643,175	forebays...estimated cost to design and construct the forebays is \$232,000."
			\$ 45,000,000	\$ 45,000,000		\$ 11,250,000	\$ 56,250,000	
Install Flow valves on Beaver Creek	\$1,500,000	VHB 2001 Study, page 22	\$ 500,000	\$ 611,440	\$ 122,288	\$ 183,432	\$ 917,160	
Install Flow valves on Lake Albemarle		Assume same as above	\$ 500,000	\$ 611,440	\$ 122,288	\$ 183,432	\$ 917,160	
Install Flow valves on Chris Greene		VHB 2001 Study, page 18	\$ 500,000	\$ 611,440	\$ 122,288	\$ 183,432	\$ 917,160	
Access currently-unused deep water storage at SFRR	\$1,000,000	n/a	\$ 1,000,000	\$ 1,000,000			\$ 1,000,000	
Increase RMR to Observatory Water Treatment Plant pipeline to 24"	\$6,000,000	Permit Support Doc, June 2006, Page 56, Table 13	\$ 7,700,000	\$ 8,539,000	\$ 1,707,800	\$ 2,561,700	\$ 12,808,500	
Upgrade Observatory Water Treatment Plant at 6 mgd	\$10,000,000	Permit Support Doc, June 2006, Page 56, Table 13	\$ 14,200,000	\$ 15,254,650	\$ 3,050,930	\$ 4,576,395	\$ 22,881,975	
Upgrade SFRR Water Treatment Plant to 18 mgd	\$12,000,000	GF 2005 cost estimate sheets, WTP Upgrades at \$1,500,000 / mgd	\$ 9,000,000	\$ 9,980,000	\$ 1,996,000	\$ 2,994,000	\$ 14,970,000	Increase of 6 mgd
Replace Sugar Hollow to RMR pipeline with 24"	\$20,000,000	Permit Support Doc, June 2006, Page 41, Table 12 (18" pipe)	\$ 12,870,000	\$ 14,271,860	\$ 2,854,372	\$ 4,281,558	\$ 21,407,790	GF Feb 16, 2005 memo, RE: RMR: 18" pipeline estimated at \$195/lf. Adjusting for inflation, the estimate for a an 18" pipe could be \$22.2-million.
Environmental Mitigation	\$0			\$ -	\$ -	\$ -	\$ 14,597,766	(GF estimates average roughly 8% for EM)
<b>Subtotal</b>	<b>\$112,500,000</b>							
20% for Engineering, Permitting and Construction Management	\$0			<b>No adj. for E/P/CM or Cont.</b>				
25% for Contingences	\$0							
<b>C-Ville Water Total</b>	<b>\$112,500,000</b>			<b>\$ 138,653,530</b>		<b>Total with adj.</b>	<b>\$ 197,069,846</b>	