

CHATFIELD WATERSHED AUTHORITY WATER QUALITY PROJECTS : 2024 - 2028									
4/19/2022 DRAFT									
PROJECT CATEGORY	DESCRIPTION	ACTIVITY	2024	2025	2026	2027	2028	TOTAL COST	PRIORITY
WATER QUALITY PROTECTION									
1	Watershed Modeling	Use and upgrade the existing watershed model to: 1. Keep model current; 2. Predict the effectiveness and potential changes in stream and reservoir inflow pollutant loads and concentrations from proposed water quality improvements; and 3. Support regulatory compliance.	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$150,000	1
2	Reservoir Modeling	Contract with the CRMCM to use and upgrade the existing reservoir model to: 1. Predict the effectiveness and potential changes in reservoir water quality from constructed and proposed water quality improvements; 2. Understand the role of each pollutant source (i.e. internal loading, stream inflow loading, etc.) on reservoir water quality; 3. Understand how the reallocation project may change the needed site specific standards, and 4. Support regulatory compliance.	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$175,000	2
3	Stream Management Planning	Partner with CPW and others in stream management plans to identify opportunities for water quality improvement projects.	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$100,000	2
4	Wildfire Mitigation	Participate in wildfire mitigation projects to minimize and mitigate the risk and effect on water quality of future wildfires in the watershed.	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$75,000	3
5	Watershed Plan Update	Continue to document the progress made in improving watershed and reservoir water quality and develop and prioritize future watershed programs and projects.		\$50,000	\$45,000			\$95,000	3
6	Reservoir Beneficial Use Monitoring	Partnering with CPW in collecting, monitoring, and documenting, as applicable, the quantity and quality of reservoir beneficial uses (i.e. fishery biodiversity, swimmer satisfaction, etc.) over time.	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000	4
7	Landowner Engagement	Continue engagement efforts with landowners abutting and/or crossing watershed streams to educate on best management practices for stream interaction and protection.	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$10,000	4
SUB-TOTAL			\$107,000	\$157,000	\$152,000	\$107,000	\$107,000	\$630,000	
WATER QUALITY MONITORING									
1	Chatfield Reservoir Monitoring	Collect additional water quality data in the reservoir to support water quality protection measures.	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$175,000	2
2	Watershed Streams Monitoring	Collect additional water quality data in the tributary watershed streams (both base flows and storm flows) to understand existing sources and magnitudes of pollutant loads and concentrations.	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$225,000	2
3	Water Quality Improvement Project Monitoring	Collect pre-project and post-project water quality data upstream and downstream of water quality projects to document their effectiveness over time in improving water quality.	\$4,000	\$6,000	\$8,000	\$10,000	\$12,000	\$40,000	2
4	Sediment Sampling and Testing	Perform watershed wide sediment testing to map and pinpoint hotspots of phosphorus rich soils for future project identification and prioritization.	\$20,000					\$20,000	3
SUB-TOTAL			\$104,000	\$86,000	\$88,000	\$90,000	\$92,000	\$460,000	
WATER QUALITY IMPROVEMENTS									
1	Stream Improvements	Contribute to and participate in the implementation of stream improvements identified in stream management plans that improve water quality in the streams tributary to the reservoir.	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000	1
2	Erosion Mitigation	Contribute to and participate in the construction of stream reclamation along critical degraded watershed stream reaches to enhance water quality and reduce streambank erosion.	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000	1
3	Grant Funding Opportunities	Partner with CPW and other government and non-profit agencies to identify and apply for grant funding for implementation of water quality improvement projects and programs in the state park and throughout the watershed.	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000	1
4	Non-point Source Mitigation Projects	Contribute to and participate in the construction of retrofits to existing detention ponds and other stormwater facilities to improve nutrient and pollutant reduction efficiencies.	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000	2
6	Agricultural Mitigation	1. Participate in the implementation of agricultural best management practices (BMPs) and demonstrations at Colorado Agricultural Leadership Foundation (CALF) at Lowell Ranch to educate members of the public that visit the working ranch on the water quality and cost efficiencies associated with implementing various agricultural management practices; and 2. Participate with the Douglas County Conservation District to educate agricultural users on state-of-the-art practices to reduce pollutant impacts from agricultural activities.	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$100,000	3
7	Septic Systems Mitigation	Contribute to and participate in the implementation of a rebate program for septic system upgrades that use new technology to reduce pollutant loads in critical stream reaches.	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000	4
5	Wastewater Treatment Improvements	Engage with wastewater treatment providers to assist in promoting improved treatment for continued nutrient reduction.	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$10,000	4
SUB-TOTAL			\$282,000	\$282,000	\$282,000	\$282,000	\$282,000	\$1,410,000	
GRAND TOTAL			\$493,000	\$525,000	\$522,000	\$479,000	\$481,000	\$2,500,000	
								PRIORITY 1	\$1,200,000
								PRIORITY 2	\$915,000
								PRIORITY 3	\$290,000
								PRIORITY 4	\$95,000