

John H. Kerr 216 Feasibility Study
Project Management Plan
Methods of Accomplishment
Priority Assignments

Task Description	Revised Task #	New Task Description	Priority	Method of Accomplishment	Revised Phase I Costs	12 Mar 04 Cost Estimate	Delta
Task 1 Downstream Flow Regime and Effects on Riparian Ecosystems		High	#				
	1.A.1	Identify, Review, and Select Flow Model	1	100% usace	\$13,000	\$13,000	\$0
	1.A.2	Identify and Review Select Flood Model	1	80% Usace 20% NCWRC	\$7,000	\$7,000	\$0
	1.A.3	As Needed, Scope Tasks for Development or Revisions of Flow and Flood Models.	#		\$7,000	\$7,000	\$0
	1.B.1	Evaluate adequacy of existing imagery and survey data.	1	1	\$22,400	\$22,400	\$0
	1.B.2	Prepare Scopes of Work for acquisition of additional imagery and/or survey data.	#		\$19,200	\$19,200	\$0
	1.B.3	Identify analyses to be performed (in Phase 2) using a GIS database containing best available information.	#		\$8,000	\$8,000	\$0
	1.C.1	Evaluate Adequacy of existing species and community response models.	2		\$30,000	\$30,000	\$0
	1.C.2	Develop a Request for Proposals (RFP) to conduct a detailed literature review of how selected species and communities respond to environmental changes.	#	Phase II Work	\$8,000	\$8,000	\$0
Task 2 Water Quality		High	#		\$114,600	\$114,600	\$0
	2.A.1	Evaluate Adequacy of Existing Water Quality Data and Prepare Recommendations for Further Data Collection	2	60% NCDWQ 30% USACE 10% Other	\$22,000	\$8,000	-\$14,000
	2.A.2	Prepare Scope for Collection of Water Quality Data as Needed.	2	50% NCDWQ 40% USACE 10% Other	\$12,000	\$8,000	-\$4,000
	2.A.3	Prepare Scope for Development or Revision of Water Quality Models related to floodplain flooding.	2	60% NCDWQ 30% USACE 10% Other	\$14,000	\$40,000	\$26,000
	2.B.1	Evaluate Adequacy of Existing Water Quality and Stream Flow Gauging Station Data	1	60% NCDWQ 30% USACE 10% Other	\$22,000	\$8,000	-\$14,000
	2.B.2	Prepare Scope for Collection of Water Quality Data as Needed.	1	50% NCDWQ 40% USACE 10% Other	\$12,000	\$8,000	-\$4,000
	2.B.3	Prepare Scope for Development or Revision of Downstream Water Quality Models.	1	60% NCDWQ 30% USACE 10% Other	\$14,000	\$40,000	\$26,000
	2.C.1	Evaluate adequacy of existing water quality data and prepare recommendations for further data collection, as needed.	3	60% NCDWQ 30% USACE 10% Other	\$22,000	\$8,000	-\$14,000
	2.C.2	Prepare scope for collection of water quality data, as needed.	3	50% NCDWQ 40% USACE 10% Other	\$12,000	\$8,000	-\$4,000
	2.C.3	Prepare Scope for development of water quality models related to reservoir releases.	3	60% NCDWQ 30% USACE 10% Other	\$22,000	\$40,000	\$18,000
Task 3 Sedimentation and Channel Morphology		Low (Move Bank Wasting to Task 1)	#		\$152,000	\$168,000	\$16,000
	3.A.1	Establish a database on available information regarding hydrology channel morphology, sedimentation dynamics and water management operations and evaluate it adequacy.	1	100% USACE	\$20,000	\$20,000	\$0
	3.A.2	Prepare Scope(s) of Work for collection of appropriate data to fill gaps required to determine impacts JHK may have on channel morphology.	4	100% USACE	\$12,000	\$12,000	\$0
	3.B.1	Establish and evaluate a database on available information regarding sedimentation dynamics within the lower basin relative to hydrologic and water management operations.	#	Phase II	\$0	\$8,000	\$8,000
	3.B.2	Determine short-term bank erosion process that may be linked to artificial prolongation of discharge surges and other artificial flow scenarios.	#	Phase II	\$0	\$2,000	\$2,000
	3.B.3	Determine adequacy of sedimentation studies currently in progress on the lower Roanoke River in addressing the impacts the operation of John H. Kerr has on sedimentation dynamics.	2	100% USACE	\$2,000	\$2,000	\$0
	3.B.4	Prepare Scope of Work for the development of a model(s) that is able to predict and evaluate sediment transport under different flow regimes.	3	100% USACE	\$5,000	\$5,000	\$0
Task 4 Reservoir Resources		Medium	#		\$39,000	\$49,000	\$10,000
	4.A.1	Review the August 1980 Master Plan including all appendices (e.g. Shoreline Management Plan) developed for Kerr Reservoir and identify how shoreline erosion, reservoir fisheries and wildlife resources, timber resources, recreational use, real estate value	4	75% USACE 12.5 VADGIF 12.5 Local Gov't	\$9,600	\$9,600	\$0
	4.A.2	Develop Scope of Work to inventory reservoir shoreline conditions and land use practices.	5	75% USACE 12.5 VADGIF 12.5 NCDWQ	\$4,000	\$4,000	\$0
	4.A.3	Inventory and compare existing local government land use regulations on lands in close proximity to reservoir	9	100% Local Gov't	\$1,600	\$1,600	\$0
	4.A.4	Develop a Scope of Work to identify current recreation facilities and use and determine current and future needs as well as the relationship between reservoir water management and recreational use.	3	75% VADGIF 25% NCDWQ	\$4,000	\$4,000	\$0
	4.B.1	Develop a scope of work to evaluate the relationship between reservoir water management and lake fisheries.	2	100% VADGIF	\$8,000	\$8,000	\$0
	4.B.2	Develop a scope of work to evaluate the relationship between reservoir water management and and real estate and local economic impacts	8	100% Local Gov't	\$4,000	\$4,000	\$0
	4.B.3	Develop a Scope of work to evaluate the relationship between reservoir water management and shoreline erosion	7	Move to 4.A.2	\$10,000	\$10,000	\$0
	4.B.4	Develop a Scope of Work to evaluate the relationship between reservoir water management and timber resources on project lands.	10	Move to 4.A.2	\$10,000	\$10,000	\$0
	4.B.5	Develop a Scope of Work to evaluate the relationship between reservoir water management and wildlife.	6	VADGIF 100%	\$10,000	\$10,000	\$0
	4.D.1	Develop a detailed study plan to determine impacts to recreation, lake fisheries, and shoreline vulnerability with various scenarios of hydropower generation (considering economic and ecological standards).	1	100% Private Industry	\$12,000	\$12,000	\$0

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Task 5 Downstream Flow Based Recreation		Medium	#		\$73,200	\$73,200	\$0
	5.A.1	Review and summarize existing data related to downstream recreational use.	1	100% NCWRC (Complete)	\$4,000	\$4,000	\$0
	5.A.2	Develop a Request for Proposals (RFP) to review and screen various approaches for analyzing the effects of different flow regimes on recreational use.	1	100% NCDWR (Complete)	\$3,200	\$3,200	\$0
	5.A.3	Develop Scope of Work (SOW) for analyzing the effect of different flows regimes on downstream recreation using an approach based on geographic information.	1	100% VADPR (Complete)	\$3,200	\$3,200	\$0
	5.A.4	Develop a SOW to produce a processing tool/model that merges the hydrology/flood model with qualifier and quantifier of recreational use for fishing, hunting, camping and nature-based recreation.	1	100% USACE (Complete)	\$1,600	\$1,600	\$0
Task 6 Salt Wedge		Low	#		\$12,000	\$12,000	\$0
	6.A.1	Evaluate adequacy of existing river stage, storm surge, sea level rise, tidal, water quality, salt water wedge, and weather data.	1	70% USACE 30% USGS	\$11,000	\$11,000	\$0
	6.A.2	Prepare recommendations for further data collection.	2	50% USACE 50% USGS	\$7,000	\$7,000	\$0
	6.A.3	Prepare scope for development or revision of models.	3	70% USGS 30% USACE	\$4,000	\$4,000	\$0
	6.B.1	Review the existing water quality data, including dissolved oxygen.	#	Phase II	\$0	\$4,000	\$4,000
	6.B.2	Review existing fisheries data in the vicinity of the river mouth and salt wedge and also information in scientific literature.	#	Phase II	\$0	\$12,000	\$12,000
	6.B.3	Develop a detailed study plan and cost estimate for evaluate the influence of the salt wedge on water quality, wetlands, aquatic habitat, and fish resources.	#	Phase II	\$0	\$8,000	\$8,000
Task 7 Diadromous Fish and Downstream Riverine Aquatic Resources		High	#		\$22,000	\$46,000	\$24,000
	7.A.1	Review Existing IFM Study and Fishery Data Obtained during relicensing.	1	Corps 15%, NCDWR 40%, NCWRC 40%, Others 5%	\$8,000	\$8,000	\$0
	7.A.2	Develop a Detailed Study Plan, Scope of Work and Cost Estimate to Address Questions Related to Hydroelectric Peaking Operations, Flood Control Operations, and Downstream Aquatic Biota.	1 Slightly lower rank	Corps 50%, NCDWR %, NCWRC 50%, Others 5%	\$24,000	\$24,000	\$0
	7.A.3	Develop a Detailed Study Plan to Evaluate Different Target Flows for Diadromous Fish Reproduction.	1	Corps 50%, NCDWR 25%, NCWRC 25%, Others 5%	\$19,000	\$19,000	\$0
	7.B.1	Review the existing diadromous fish restoration plan and fishery data related to diadromous fish.	1	Corps 50%, NCDWR %, NCWRC 50%, Others %	\$8,000	\$8,000	\$0
	7.B.2	Develop a detailed study plan, scope of work and cost estimate to address questions related to habitat restoration for diadromous fish.	1	Corps 50%, NCDWR %, NCWRC 50 %, Others %	\$16,000	\$16,000	\$0
Task 8 Water Supply		Low	#		\$75,000	\$75,000	\$0
	8.A.1	Evaluate adequacy of existing water supply data and prepare recommendations for further data collection.	#		\$8,000	\$8,000	\$0
	8.A.2	Prepare scope of work for collection of water supply data, as needed.	#		\$3,000	\$3,000	\$0
	8.A.3	Prepare scope of work for development or revisions of water supply models related to future withdrawals.	#		\$8,000	\$8,000	\$0
	8.A.4	Review/Analyze RRBROM for adequacy to provide desired water supply impacts and make recommendations for its use/revision or development of a new model.	#		\$36,000	\$36,000	\$0
	8.B.1	Prepare scope for development of a new GIS model or revision of RRBROM for water supply related to consumptive Impacts and IBT.	#		\$8,000	\$8,000	\$0
	8.B.2	Evaluate adequacy of existing data and prepare recommendations for further data collection through consultation with various experts.	#		\$8,000	\$8,000	\$0
	8.B.3	Prepare scope for collection of consumptive and IBT data, as needed.	#		\$3,000	\$3,000	\$0
	8.B.4	Prepare scope for development or revision of models to evaluate future critical periods on a real time basis.	#		\$8,000	\$8,000	\$0
Task 9 Operating Policies and Administrative Procedures		High	#		\$82,000	\$82,000	\$0
	9.A.1	For each of the following policies or sources of policy, provide details on source(s) and purpose(s) How formulated? How amended? How and when renewed? What are the terms and conditions? How it influences the operation of John H. Kerr?	#		\$10,000	\$10,000	\$0
	9.A.2	Describe the way these policies are formulated and implemented. How do they interact? How are they weighted? What are their cumulative and net affects?	#		\$9,000	\$9,000	\$0
	9.A.3	Evaluate the economics relationship between the various parties involved in the generation and transfer of electricity.	#		\$7,000	\$7,000	\$0
Total					\$595,800	\$645,800	\$50,000