

**COST SHARING AGREEMENT  
FOR  
PLANNING ASSISTANCE BETWEEN  
THE US ARMY CORPS OF ENGINEERS  
AND  
THE TOWN OF BLACK MOUNTAIN, NORTH CAROLINA**

THIS AGREEMENT is entered into this 9th day of August, 2010, by and between the Department of the Army (hereinafter the "Government"), represented by the District Engineer executing this Agreement, and the Town of Black Mountain, North Carolina (hereinafter the "Sponsor"), represented by Marcy Onieal, Town Manager for the Town of Black Mountain, North Carolina.

WITNESSETH, that

WHEREAS, Section 22 of the Water Resources Development Act ("WRDA") of 1974 (Public Law 93-251), as amended, authorizes the Secretary of the Army, acting through the Chief of Engineers, to assist the States, as therein defined, in the preparation of comprehensive plans for the development, utilization and conservation of water and related resources of drainage basins, watersheds or ecosystems located within the boundaries of such State;

WHEREAS, section 319 of the WRDA of 1990 (Public Law 101-640) authorizes the Secretary of the Army to collect fees from States and other non-Federal governmental entities for the purpose of recovering 50 percent of the cost of the program established by WRDA of 1974, Section 22;

WHEREAS, the Sponsor has reviewed the State's comprehensive water plans and identified the need for planning assistance as described in the Scope of Work incorporated into this agreement;

WHEREAS, the Sponsor has the authority and capability to furnish the cooperation hereinafter set forth and is willing to participate in the study cost-sharing and financing in accordance with the terms of this Agreement; and

WHEREAS, the Sponsor may provide up to 100 percent of its required contribution of Study Costs by the provision of services, materials, supplies or other in-kind services.

NOW THEREFORE, the parties agree as follows:

**ARTICLE I - DEFINITIONS**

For the purposes of this Agreement:

A. The term "Study Costs" shall mean all disbursements by the Government pursuant to this Agreement, from Federal appropriations or from funds made available to the Government by the Sponsor and all negotiated costs of work performed by the Sponsor pursuant to this

Agreement. Study Costs shall include, but not be limited to: labor charges; direct costs; overhead expenses; supervision and administration costs; the costs of participation in Study Management and Coordination in accordance with Article IV of this Agreement; the costs of contracts with third parties, including termination or suspension charges; and any termination or suspension costs (ordinarily defined as those costs necessary to terminate ongoing contracts or obligations and to properly safeguard the work already accomplished) associated with this Agreement.

B. The term "estimated Study Costs" shall mean the estimated cost of performing the Study as of the effective date of this Agreement, as specified in Article III.A. of this Agreement.

C. The term "study period" shall mean the time period for conducting the Study, commencing with the release to the U.S. Army Corps of Engineers, Nashville District of initial Federal funds following the execution of this Agreement and ending when the Nashville District provides the planning report to the Sponsor.

D. The term "Scope of Work" (SOW) means a description of the work to be performed. The SOW will be attached to this Agreement and not be considered binding on either party and is subject to change by the Government, in consultation with the Sponsor.

E. The term "fiscal year" shall mean one fiscal year of the Government. The Government fiscal year begins on October 1 and ends on September 30.

F. The term "negotiated costs" shall mean the costs of in-kind services to be provided by the Sponsor in accordance with the SOW.

## ARTICLE II - OBLIGATIONS OF PARTIES

A. The Government, subject to receiving funds appropriated by the Congress of the United States (Congress), using funds and in-kind services provided by the Sponsor and funds appropriated by the Congress, shall expeditiously prosecute and complete the Study, in accordance with the provisions of this Agreement and Federal laws, regulations, and policies.

B. In accordance with this Article and Article III.A., III.B. and III.C. of this Agreement, the Sponsor shall contribute cash and in-kind services equal to fifty (50) percent of Study Costs. If agreeable to all parties, in-kind services may comprise up to 100 percent of the Sponsor's contributions. The in-kind services to be provided by the Sponsor, the estimated negotiated costs for those services, and the estimated schedule under which those services are to be provided are specified in the Scope of Work. Negotiated costs shall be subject to an audit by the Government to determine reasonableness, allocability, and allowability.

C. The Sponsor understands that the schedule of work may require the Sponsor to provide cash or in-kind services at a rate that may result in the Sponsor temporarily diverging from the obligations concerning cash and in-kind services specified in paragraph B. of the Article. Such temporary divergences shall be identified in the quarterly reports provided for in Article III.A. of this Agreement and shall not alter the obligations concerning costs and services specified in paragraph B. of the Article or the obligations concerning payment specified in Article III of this Agreement.

D. If, upon the award of any contract or the performance of any in-house work for the Study by the Government, cumulative financial obligations of the Government and the Sponsor would exceed \$116,000.00, the Government and the Sponsor agree to defer award of that and all subsequent contracts, and performance of that and all subsequent in-house work, for the Study until the Government and the Sponsor agree to proceed. Should the Government and the Sponsor require time to arrive at a decision, the Agreement will be suspended in accordance with Article X., for a period of not to exceed six months. In the event the Government and the Sponsor have not reached an agreement to proceed by the end of their 6-month period, the Agreement may be subject to termination in accordance with Article X.

E. No Federal funds may be used to meet the Sponsor's share of Study Costs unless the Federal granting agency verifies in writing that the expenditure of such funds is expressly authorized by statute.

F. The award and management of any contract with a third party in furtherance of this Agreement which obligates Federal appropriations shall be exclusively within the control of the Government. The award and management of any contract by the Sponsor with a third party in furtherance of the Agreement which obligates funds of the Sponsor and does not obligate Federal appropriations shall be exclusively within the control of the Sponsor, but shall be subject to applicable Federal laws and regulations.

G. Notwithstanding any provision of this Agreement, this Agreement and the Government's obligations hereunder shall not be effective and will not commence until Federal funds have been appropriated and allocated to the District Engineer, U.S. Army Corps of Engineers, Nashville District for the implementation of this study. In the event that Federal funds are allocated to the District Engineer for this study after the date that the parties hereto execute this Agreement, the effective date of this Agreement shall be the date that funding approval is provided to the District Engineer.

### ARTICLE III - METHOD OF PAYMENT

A. The Government shall maintain current records of contributions provided by the parties, current projections of Study Costs, current projections of each party's share of Study Costs. At least quarterly, the Government shall provide the Sponsor a report setting forth this information. As of the effective date of this Agreement, estimated Study Costs are \$116,000.00 and the Sponsor's share of estimated Study Costs is \$58,000.00. In order to meet the Sponsor's cash payment requirements for its share of estimated Study Costs, the Sponsor must provide a cash contribution currently estimated to be \$33,200.00. The dollar amounts set forth in this Article are based upon the Government's best estimates, which reflect the scope of the study described in the SOW, projected costs, price-level changes, and anticipated inflation. Such cost estimates are subject to adjustment by the Government and are not to be construed as the total financial responsibilities of the Government and the Sponsor.

B. The Sponsor shall provide its cash contribution required under Article II.B. of this Agreement in accordance with the following provisions:

1. No later than 30 days prior to the scheduled date for the Government's issuance of the solicitation for the first contract for the Study or for the Government's anticipated first significant in-house expenditure for the Study, the Government shall notify the Sponsor in

writing of the funds the Government determines to be required from the Sponsor to meet its share of Study Costs. No later than 15 days thereafter, the Sponsor shall provide the Government the full amount of the required funds by delivering a check payable to "FAO, USAED, Nashville District" to the District Engineer or an Electronic Funds Transfer in accordance with procedures established by the Government.

2. The Government shall draw from the funds provided by the Sponsor such sums as the Government deems necessary to cover the Sponsor's share of contractual and in-house financial obligations attributable to the Study as they are incurred.

3. In the event the Government determines that the Sponsor must provide additional funds to meet its share of Study Costs, the Government shall so notify the Sponsor in writing. No later than 60 days after receipt of such notice, the Sponsor shall provide the Government with a check or an Electronic Funds Transfer for the full amount of the additional required funds.

C. Within 90 days after the conclusion of the Study Period or termination of this Agreement, the Government shall conduct a final accounting of Study Costs, including disbursements by the Government of Federal funds, cash contributions by the Sponsor, and credits for the negotiated costs of the Sponsor, and shall furnish the Sponsor with the results of this accounting. Within 30 days thereafter, the Government, subject to the availability of funds, shall reimburse the Sponsor for the excess, if any, of cash contributions and credits given over its required share of Study Costs, or the Sponsor shall provide the Government any cash contributions required for the Sponsor to meet its required share of Study Costs.

#### ARTICLE IV - STUDY MANAGEMENT AND COORDINATION

To provide for consistent and effective communication, the Government's Project Manager for the Study and the Sponsor's designated representative shall communicate regularly until the end of the Study Period.

#### ARTICLE V - DISPUTES

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to both parties. The parties shall each pay 50 percent of any costs for the services provided by such a third party as such costs are incurred. Such costs shall not be included in Study Costs. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

#### ARTICLE VI - MAINTENANCE OF RECORDS AND AUDIT

A. Within 60 days of the effective date of this Agreement, the Government and the Sponsor shall develop procedures for keeping books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement. These procedures shall incorporate, and apply as appropriate, the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State

and Local Governments at 32 C.F.R. Section 33.20. The Government and the Sponsor shall maintain such books, records, documents, and other evidence in accordance with these procedures and for a minimum of three years after the period of design and resolution of all relevant claims arising therefrom. To the extent permitted under applicable Federal laws and regulations, the Government and the Sponsor shall each allow the other to inspect such books, documents, records, and other evidence.

B. In accordance with 31 U.S.C. Section 7503, the Government may conduct audits in addition to any audit that the Sponsor is required to conduct under the Single Audit Act. Any such Government audits shall be conducted in accordance with Government Auditing Standards and the cost principles in OMB Circular No. A-87 and other applicable cost principles and regulations. The costs of Government audits shall be included in total Study Costs and cost shared in accordance with the provisions of this Agreement.

#### ARTICLE VII - RELATIONSHIP OF PARTIES

The Government and the Sponsor act in independent capacities in the performance of their respective rights and obligations under this Agreement, and neither is to be considered the officer, agent, or employee of the other.

#### ARTICLE VIII - OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress, nor any resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

#### ARTICLE IX - FEDERAL AND STATE LAWS

In the exercise of the Sponsor's rights and obligations under this Agreement, the Sponsor agrees to comply with all applicable Federal and State laws and regulations, including Section 601 of Title VI of the Civil Rights Act of 1964 (Public Law 88-352) and Department of Defense Directive 5500.11 issued pursuant thereto and published in 32 C.F.R. Part 195, as well as Army Regulations 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army."

#### ARTICLE X - TERMINATION OR SUSPENSION

A. This Agreement shall terminate at the conclusion of the Study Period, and neither the Government nor the Sponsor shall have any further obligations hereunder, except as provided in Article III.C.; provided, that prior to such time and upon 30 days written notice, either party may terminate or suspend this Agreement. In addition, the Government shall terminate this Agreement immediately upon the failure of the parties to extend the study under Article II.D. of the Agreement, or upon failure of the Sponsor to fulfill its obligation under Article III. of this Agreement. In the event that either party elects to terminate this Agreement, both parties shall conclude their activities relating to the Study and proceed to a final accounting in accordance with Article III.C. of this Agreement. Upon termination of this Agreement, all data and information generated as part of the Study shall be made available to both parties.

B. Any termination of this Agreement shall not relieve the parties of liability for any obligations previously incurred, including the costs of closing out or transferring any existing contracts.

#### ARTICLE XI – LIMITATION ON GOVERNMENT EXPENDITURE

In accordance with Section 22 of WRDA of 1974, as amended, Government financial participation in the cooperative preparation of comprehensive plans for development, utilization, and conservation of water and related resources pursuant to said authority shall be limited to the expenditure of not more than \$2,000,000 in any one year in any one State.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which, subject to the provisions of Article II.G. of this Agreement, shall become effective upon the date it is signed by the District Engineer for the U.S. Army Corps of Engineers, Nashville District.

DEPARTMENT OF THE ARMY

THE TOWN OF BLACK MOUNTAIN,  
NORTH CAROLINA

BY: \_\_\_\_\_

Anthony P. Mitchell  
Lieutenant Colonel  
Corps of Engineers  
District Engineer  
Nashville District

BY: \_\_\_\_\_

Marcy Onieal  
Town Manager  
Town of Black Mountain, North Carolina

Attachments – Appendix A: Scope of Work  
Appendix B: Schedule  
Appendix C: Cost Estimate

CERTIFICATE OF AUTHORITY

I, **Ronald E. Sneed**, do hereby certify that I am the principal legal officer of the Town of Black Mountain, North Carolina and that the Town of Black Mountain, North Carolina is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and the Town of Black Mountain, North Carolina in connection with the Swannanoa River Watershed Dam Safety Project, and that the person who has executed this Agreement on behalf of the Town of Black Mountain, North Carolina has acted within his/her statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this **9th day of August, 2010.**

Signature: \_\_\_\_\_

Ronald E. Sneed

Town Attorney

ATTEST:

\_\_\_\_\_  
Darlene Whisenant, Town Clerk

## **APPENDIX A**

### **Scope of Work**

**To**

**Provide Engineering Services regarding Dam Safety for Two Dams in the  
Swannanoa River Watershed**

**To**

**The Town of Black Mountain, Buncombe County, North Carolina  
Through Planning Assistance to the States**

**Prepared by:**

**Nashville District, Corps of Engineers**

**July 1, 2010**

### **1.0 Introduction**

There are two publicly owned high-hazard dams which are owned by the Town of Black Mountain in the Swannanoa River watershed which have widely varying levels of maintenance and safety inspections. Neither of these has a current Emergency Action Plan (EAP). These dams are Lake Tomahawk (LT) and the Town of Black Mountain (TOBM) Water Supply Reservoir and its companion (BMC) dam.

The Town of Black Mountain has requested that the Nashville District, Corps of Engineers provide dam safety inspections and Emergency Action Planning for these two dams.

Tasks in this project include inspections of the two dams, including the BMC dam, and development of Emergency Action Plans for LT and TOBM dams (to include topographic, hydrographic, and sediment surveys at LT and TOBM dams).

### **2.0 Tasks**

#### **2.1 Task 1 – Records Review, Dam Inspections and Reporting**

The United States Army Corps of Engineers, Nashville District (COE) shall locate and review any existing drawings, data, plans or other documents related to the dams.

The Corps will conduct Major Periodic Inspections (MPIs) of the LT and TOBM reservoir dams and the BMC dam. These MPIs will include a site visit for a detailed visual inspection of the dams by Geotechnical, Structural and Hydrology/Hydraulics representatives. From the inspection findings, the Corps will prepare a report for each dam (total of two reports; reporting on the BMC dam will be included with the TOBM dam report); each report will undergo a District Quality Control Review. Evaluation of each structure's condition based on the visual inspection and recommendations regarding the need for instrumentation and dam safety issues related to the structures will be documented in the reports. Inspection activities will include pre-

inspection review, travel, field work, documentation, report generation, District Quality Control Review, comment resolution, and document printing.

## **2.2 Task 2 –Topographic, Hydrographic, and Sediment Surveys for the LT and BM Dams**

The Town of Black Mountain will perform topographic, hydrographic, and sediment surveys of the LT and TOBM reservoirs. The Town shall also perform a topographic survey of the BMC dam. The topographic and hydrographic surveys shall be performed to a level of detail that will allow preparation of one-foot contour interval mapping to an industry standard level of accuracy. The sediment surveys shall be performed to a level of detail that will allow computation of the volume of sediment deposited in the reservoirs to an accuracy of no less than +/- 20%. The Town shall process the survey data collected and prepare one-foot contour interval mapping of the lake bottom and dam at each project. The Town shall also estimate the volume of sediment that has been deposited in the LC and BM reservoirs. The Town will provide to the Corps a report, in both a hard copy and electronic form, that documents the equipment and methods used for these surveys, details regarding the processing of the resulting data, and the data obtained in both a raw and processed form.

## **2.3 Task 3 - H&H Work in Support of Development of EAPs for LT and TOBM Dams**

### **2.3.1 Develop Hydrology at the LT and TOBM Dams**

The Corps will refine existing hydrologic modeling as needed to develop various flood frequency scenarios and determine flows to be used in hydraulic modeling.

### **2.3.2 Develop Hydraulics for each Dam by Extending Existing HEC-RAS Modeling**

The Corps will extend existing hydraulic models as needed to connect the Dams with the Swannanoa River, including Black Mountain Reservoir (approximately 1 mile) and Tomahawk Reservoir (approximately 1 mile). The Corps will add hydraulic structures (dams) to the modeling, including: top of dam and outlet structures, elevation-storage relationships, and inflow hydrographs for various events. The Corps will also convert the current steady flow models into unsteady flow models by adding storage areas and cross sections, developing unsteady flow parameters, testing the unsteady flow model for known events, and running inflow hydrographs for various scenarios for fail/no fail conditions.

### **2.3.3 Develop Inundation Mapping**

The Corps will develop inundation mapping by determining and creating layers to be plotted on mapping, determining and creating other aspects to be included in mapping (e.g. time to peak, hydrographs, etc.), developing the appearance of mapping, and performing map printing.

### **2.3.4 Spillway Adequacy Study**

It was determined that performing a full-blown spillway adequacy study including a Probable Maximum Flood is beyond the scope of this effort. The purpose of this study is not to ensure that the dams meet current design criteria but instead to evaluate their existing physical condition and to delineate a plan of action to be implemented in the event of dam overtopping or failure. Considering the age of the dams, the size of event required to overtop them is likely much less than the Probable Maximum Flood. Thus, it is anticipated that modeling frequency floods will be sufficient for this effort.

#### **2.4 Task 4 – Writing the EAPs for LT and TOBM Dams**

The Corps will generate EAPs which will assist the dam owners and local officials with emergency preparedness and communication in the event of an emergency situation at any of the three dams. The EAP for each of the two dams will include call notification lists, inundation mapping and potential failure mechanisms consistent with dams of these characteristics to follow the federal guidelines for dam safety. Coordination with the local government and emergency responders will ensure up to date information in the plans. The Corps assumes that, to support efficient development of these EAPs, the Sponsor will furnish the maximum permissible content from the existing EAP for North Fork Dam. Each EAP will include a list of local suppliers in the area who provide material that would be needed to address a safety concern at the dam (materials such as sand, rock, gravel and sandbags). The EAPs will not go into specific details about how to fix a likely failure mode; that would possibly be a recommendation that would come from the Corps' visual inspection and any subsequent subsurface exploration. Each EAP will undergo a District Quality Control Review prior to providing it to the sponsor for their review and input. The Corps will produce two draft EAPs for review by the sponsor, will resolve any comments on the draft versions and will produce two final EAPs. Copies (electronic and print) of the completed EAPs (to include inundation mapping) will be provided as a deliverable.

#### **2.5 Task 5 – Project Management**

The Corps will provide project management support to the project, which will include preparing and update a Project Management Plan, performing general coordination, review and financial activities, coordinate public involvement, and attend project team meetings.

### **3.0 Deliverables**

The following products will be produced in this project:

- Task 1 – Two Dam Inspection Reports (by Corps)
- Task 2 – Reports of the Topographic, Hydrographic, and Sediment Surveys (by TOBM)
- Task 4 – Two Draft and Two Final EAPs (by Corps)

## **APPENDIX B**

### **Project Schedule for the Swannanoa River Watershed Dam Safety Planning Assistance to the States Study**

- August 2010 Sign Cost Share Agreement
- Nov 2010 Submit Two Dam Inspection Reports
- Dec 2010 Submit Draft EAPs for LT and TOBM Dams
- Jan 2011 Submit Final EAPs for LT and TOBM Dams

**APPENDIX C**

**Cost Estimate  
for the  
Swannanoa River Watershed Dam Safety  
Planning Assistance to the States Study**

<b>Phase I Task no.</b>	<b>Task</b>	<b>Cost (\$K)</b>	<b>Fed share (50%)(\$K)</b>	<b>Non-fed share (50%)(\$K)</b>
1	Records Review, Dam Inspections and Reporting	30.5	-	-
2	2 Hydrographic Surveys and 3 dam surveys	24.8	-	-
3	H&H Support to the 2 EAPs	36.7	-	-
4	Write 2 EAPs	16	-	-
5	Project Management	8	-	-
			-	-
			-	-
	Total	116	58	58
	Work-in-kind available (WIK)		0	24.8 (2 surveys by TOBM – Task 2)
	Other non-Fed contributions available		-	0
	Total sponsor non-cash contributions available		-	24.8
	Cash required		58	33.2

Notes –

1. Cash required from the sponsor consists of \$29K from the State of North Carolina and \$4.2K from TOBM.
2. At a future date, it may be determined that other non-Fed contributions (including contracting for and overseeing work on the two surveys, and furnishing the Corps the PMF) may be applicable for this project. In that event, the value of those contributions will be estimated and the agreement amended accordingly.