Boulder County Room for the River Program

Scope of Work – July 9, 2017

Phase I: Project Kickoff & Data Collection

Task 1.1: Project Kickoff Meeting/Staff Workshop

Michael Baker shall conduct a half-day workshop for county staff within the Transportation, Floodplain Management, Land Use, Assessor, Parks & Open Space, and Housing and Human Services departments, as well as the Boulder Office of Emergency Management. The primary purpose of the workshop should be to formally introduce the Michael Baker team, to lay out the project schedule, and to discuss concepts for the Room for the River plan.

Specific workshop topics should include:

- Roles and responsibilities
- Successful mitigation projects in Boulder County following the September 2013 floods
- Existing datasets to be obtained for the Room for the River effort
- Potential barriers to program success
- Hazard Overview
- Communication plan
- Scheduling of key staff interviews

Deliverables: **Initial Data Inventory**; **Project Communication Plan**

Task 1.2: Key Staff Interviews

In-person interviews should be conducted. They should focus on county staff with experience from the 2013 flood event. The goals of these staff interviews are to discuss lessons learned and best practices and gather information on staffing, agency interactions, funding, and communicating with the public.

Deliverables: **Interview Takeaway Concepts Flyer**

Task 1.3: Review of Similar Programs & Funding

Michael Baker should review programs in other communities and should summarize results during interim meetings with county staff. Successful strategies and processes should be discussed with the county and considered for the Room for the River plan.

Funding sources and funding schedules should be compiled and considered for the Room for the River program. Information on funding eligibility requirements like project type, hazard type and severity, location, and other factors such as demographics should be included.

Deliverables: **Programs & Funding Takeway Concepts Flyer**

Task 1.4: Existing Data Collection

Data for the Room for the River project should be identified and obtained during Phase 1. Collection should include spatial datasets and relevant hardcopy maps and reports. Datasets should be mined from local, state, and national resources. Existing plans and reports should be consulted first to streamline the identification and collection process.

Deliverables: **Updated Data Inventory; Room for the River Project Geodatabase**

Phase II: Hazard Identification & Risk Assessment

Task 2.1: Hazard evaluation and mapping

The **Room for the River** plan shall consider the natural processes and hazards that exist within the county's river corridors and develop mitigation methods as-necessary. Michael Baker should review and evaluate the following spatial hazard datasets to resolve data gaps, flag areas of special interest, and assure a correct representation of the hazard for use by Boulder County staff and the risk assessment tool (described below):

- *Floodplain Mapping*. Source: Colorado Hazard Mapping Program (CHAMP), FEMA, Boulder County.
- *Dam Failure Hazards*. Source: Colorado DWR- Dam Safety Program.
- *Debris Flow Mapping*. Source: Colorado Geological Survey.
- *Wildfire Hazard Zones & Perimeters*. Source: Boulder County.
- *Depth/Velocity Grids, if available*

Deliverables: **Updated Project Geodatabase, spatial datasets, depth/velocity grids.**

Task 2.2: Criteria Development for target assets

Michael Baker shall identify Target Assets and other necessary information for input into a risk assessment. In conjunction with Boulder County staff, Michael Baker shall determine the types of development and infrastructure to include in a risk assessment using the data compiled and developed in the **Room for the River Project Database**. All parcels, commercial and residential (single and multi-family) structures, outbuildings/accessory structures, property access routes/driveways, public infrastructure, and critical facilities shall be considered for inclusion in the risk assessment. Michael Baker shall also develop criteria that formulates the risk assessment.

Deliverables: **Asset Inventory; Risk Assessment Inputs**

Task 2.3: Risk Assessment Tool Creation

Using the data outlined in Phase II Tasks 2 & 3, Michael Baker shall perform a GIS-based risk assessment on selected parcels.

Deliverables: **Risk Assessment**

Phase III: Program Framework

Task 3.1: Mitigation strategies to be included in the Room for the River program

Hazard mitigation strategies should be formulated that consider the feasibility of mitigation methods. Strategies must be cost-effective, environmentally sound and implementable. All potential mitigation actions shall be prioritized with an emphasis on the extent to which benefits are maximized according to a cost-benefit review of the proposed projects and their associated costs.

Delverables: **Mitigation Strategy Guide**

Task 3.2: Program Guidelines and Policies

Michael Baker shall build program guidelines that meet the long-range planning goals of the County, and should include individual guidelines for each mitigation type.

Deliverables: **Briefing Packet**

Task 3.3: Program Outreach

Michael Baker shall create an Outreach Plan specific to the elements of the Room for the River program as well as outreach products for use within the program to engage stakeholders, outline processes, and increase program awareness. The plan should include both materials and messaging based on the differing mitigation types and

audiences. Dedicated content for a Room for the River web page created in-conjunction with Boulder County staff should be included.

Deliverables: **Outreach materials/plan; web content**

Task 3.4: Program Implementation/Management Structure

Michael Baker shall develop a Staffing Plan within the Room for the River plan that assigns rolls and responsibilities of County staff and considers internal department coordination. Coordination with the City of Longmont, Town of Lyons, and the Raymond-Riverside neighborhoods should be considered. Milestones should be identified in the plan to provide a phased implementation of the Room for the River program.

Deliverables: **Staffing Plan**

Phase IV: Room for the River Plan

Task 4.1: Plan Development

A draft **Room for the River** plan shall be prepared as major project milestones are achieved and as project phases are completed. Draft sections should be provided in accordance with the Tasks & Deliverables table in this Scope of Work.

Monthly progress meetings with the project team will provide a forum for presentation and discussion of task deliverables. A draft version of the plan shall be provided to the County for review and comments in accordance with the Schedule outlined below.

Deliverables: **Draft Room for the River Plan**

Task 4.2: Stakeholder Review & Outreach

Michael Baker shall work with Boulder County to make the draft plan available online for stakeholder review, and shall create a method to collect stakeholder feedback. Deadlines for review should be posted ahead of a Stakeholder Review Meeting. Michael Baker should plan to assist during a County-led Room for the River Stakeholder Review Meeting.

Deliverables: **Summary of Stakeholder Comments**

Task 4.3: Final Plan

The final draft of the Room for the River plan shall be provided to Boulder County for website hosting, dissemination, and plan execution when all deliverables are complete (currently planned for early 2018).

Deliverables: **Room for the River Final Plan**

Summary Table of Tasks and Deliverables

Work Tracks	Task	Deliverables
Phase I: Project Kickoff & Data Collection	Project Kickoff/Staff Workshop	Workshop Summary/ Meeting Minutes
		Initial Data Inventory
		Project Communication Plan
	Key Staff Interviews	Interview Minutes
		Interview Takeaway Concepts Flyer
	Review of Similar Programs and Funding	Programs & Funding Takeaway Concepts Flyer
	Existing Data Collection	Update to Data Inventory
		Room for the River Project Geodatabase
Phase II: Hazard Identification & Risk Assessment	Hazard Evaluation & Mapping	Updated R4R Project Geodatabase
		Flagged Areas of Interest Spatial Dataset
		Channel Migration Zone Mapping*
		Depth/Velocity Grids*
		1% Plus Flood Hazard Mapping*
	Criteria Development for Target Assets	Asset Inventory
		Hazard and Asset Weight Calculations Sheet
	Risk Assessment Tool Creation	Risk Assessment Tool
Phase III: Mitigation Program Framework	Mitigation Strategies	Mitigation Strategy Guide
	Program Guidelines & Policies	Briefing Packet
	Program Outreach Development	Outreach materials/plan
	Program Implementation	None
Phase IV: Room for the River Plan	Plan Development	Draft R4R Plan
	Stakeholder Review/Mtgs	Summary of Stakeholder Comments
	Finalize Room for the River Plan	Room for the River Final Plan