APPENDIX G

Floodplain Management 8-Step Decision Making Process
Executive Order (EO) 11988 – Floodplain Management

Eight-Step Decision Making Process

EO 11988 (Floodplain Management) requires federal agencies “to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of the floodplain and to avoid direct or indirect support of floodplain development whenever there is a practical alternative.” This eight-step process is applied to the proposed Los Alamos County Wildlife Mitigation and Public Education Project (hereafter referred to as the proposed project or proposed action). The proposed project involves thinning vegetation on approximately 114 acres of land managed by Los Alamos County. The areas identified to be treated through the proposed action are all within the Wildland Urban Interface (WUI) and would promote defensible space from a wildfire threat for approximately 750 residential homes, as well as for two schools, and the Los Alamos National Laboratory Pueblo Complex.

**Step 1  Determine if the proposed action is located in the Base Floodplain**

Approximately 0.15 acres of the proposed project is located in Zone A of the 100-year Floodplain, per FEMA Flood Insurance Rate Maps 35028C0040C and 35028C0045C, dated 07/18/2011. This flood zone narrowly follows Pueblo Canyon Creek. Per the U.S. Fish and Wildlife Service’s National Wetlands Inventory map (NWI) there are approximately 0.09 acres of wetlands within the project area.

**Step 2  Early public notice (Preliminary Notice)**

Early public notice concerning the proposed wildfire mitigation project and public meeting was made to the public via public service announcements in the Los Alamos Daily Post on September 12, 2017 and the Los Alamos Monitor on September 22, 2017. The project and public meeting was also announced on local radio channels and on the local television channel. Additionally, a stakeholder letter was mailed to the project contact list and posted on project webpage. The contact list included local, state and federal government agencies, tribal government offices and interested individuals. A public meeting to learn more about the project was held on September 20, 2017.

**Step 3  Identify and evaluate alternatives to locating in the base floodplain**

Relocating the proposed project area to avoid floodplains and wetlands would require that portions of the project area not undergo hazardous fuels reduction. The Villa Bench treatment area has been identified for vegetation thinning to mitigate the spread of wildfire. The continuity of the hazardous fuels reduction footprint through this high-risk project area must not be broken for the project goals to be met. Eliminating this small portion from the project activities, thereby taking the project out of the floodplain and wetlands, and leaving a gap in the fire-barrier, is not a practicable alternative because it may cause the entire project to fail and therefore would not meet the purpose and need for the mitigation activity.

Taking no action would incur no costs for the County and would cause no construction-related environmental impact to floodplains and wetlands, but would fail to address the threat of spreading wildfire between Pueblo Canyon and the residential areas north of the Villa Bench proposed treatment area. The no action alternative would not meet the purpose and need for the project and is not a practicable alternative.
Step 4  Identify impacts of proposed action associated with occupancy or modification of the floodplain

The proposed action would not significantly affect the functions and values of floodplains and wetlands in the project area. The proposed action would not result in any discharge of dredged or fill materials nor would it result in any structures or fill within floodplains and wetlands that would affect their functions. The proposed project would not promote development within floodplains and wetlands. Soil disturbances would be avoided by conducting the work by hand within wetlands and within 100 feet of wetlands. No rootballs of removed vegetation would be disturbed.

The functions of floodplains and wetlands to filter nutrients and impurities from runoff; to provide floodwater storage; to reduced flood velocities; to reduce flood peaks; to reduce sedimentation; and to promote infiltration and aquifer recharge will remain intact after the implementation of this project because vegetation would be thinned but not removed completely. Floodplains and wetlands also provide services in the form of providing fish and wildlife habitat, breeding, and feeding grounds. These values will not be adversely impacted as a result of the proposed action and the overall integrity of the ecosystem will not be impacted.

FEMA has determined the project may affect, but will not likely adversely affect two federally listed species—the Mexican Spotted Owl (federally listed threatened species) and the Jemez Mountains salamander (federally listed endangered species). There is no designated critical habitat for these species within the proposed project area. Project conservation and mitigation measures have been incorporated into the proposed action to reduce potential effects on these species. The proposed action would have negligible impacts to native species and their habitats and would not contribute to a downward trend in native species population levels. To mitigate the potential for adverse impacts to migratory bird species and the Mexican Spotted owl, cutting or removing vegetation, including snags, would occur outside of the migratory bird breeding season (March 1–August 31). If vegetation removal cannot avoid the bird breeding season, nesting surveys would be completed prior to project implementation to identify any occupied nests and establish avoidance buffers until the young have fledged. While there may be temporary (lasting a maximum of three weeks) impacts to open space lands and recreation trails within and adjacent to the project areas, the proposed action would not adversely affect the societal and recreational benefits provided by the floodplain in these natural areas.

The hazardous fuels reduction activities would reduce the potential for the negative effects of a major wildfire on soils if a wildfire occurs. A wildfire could alter the cycling of nutrients; the physical and chemical properties of soils; and the temperature, moisture, and biotic characteristics of the existing soils. These primary impacts from a wildfire could also result in decreased infiltration and increased runoff, which often causes increased erosion. These potential negative effects of a major wildfire on the natural wetland functions would be reduced through implementation of the proposed action.
Step 5  Design or modify the proposed action to minimize threats to life and property and preserve its natural and beneficial floodplain values

The vegetation thinning activities will not have significant adverse effects on the natural values provided by floodplains and wetlands. The controlled vegetation removal will protect the natural environment from spreading wildfire, and reduce the impact of destruction to property and possible loss of life. The proposed project would not result in the destruction, loss, or degradation of floodplains or wetlands.

The project conservation measures would include the installation of waterbars on steep canyon slopes to minimize erosion and would limit cross country travel of the wheeled chipper to one path in and out of each treatment unit and only when soils are dry. No chipped materials will be dispersed into water bodies and no trees will be felled into waterbodies, including wetlands and the floodplain associated with Pueblo Canyon Creek. Waste materials will be managed and disposed of in accordance with applicable, local, state and federal regulations. If contaminated materials are discovered during the construction activities, work will cease until the appropriate procedures and permits can be implemented.

Impacts to federally listed species will be mitigated by the avoidance and minimization measures outlined in the consultation with the U.S. Fish and Wildlife Service (USFWS) in Section 3.2.2.2 of the EA. Impacts to migratory bird species will be minimized by seasonal restrictions such that work is conducted outside of nesting season or that nesting surveys will be completed prior to project implementation to identify any occupied nests and establish avoidance buffers until the young have fledged.

The City will be required to coordinate with the local floodplain administrator and the U.S. Army Corps of Engineers to obtain any required permits for work within these areas prior to the start of construction. The City will be required to comply with all permit conditions.

Step 6  Determine if proposed action is practicable and re-evaluate alternatives

FEMA maintains that the proposed action alternative is the only practicable alternative to meet the purpose and need of the project. This section may be revised following public comment on the EA and this 8-step evaluation if significant comments are received regarding floodplain impacts.

Step 7  Findings and public explanation (Final Notification)

Step 7 requires that the public be provided with an explanation of any final decision that the floodplain is the only practicable alternative. In accordance with 44 CFR §9.12, the Notice of Availability of the Draft Environmental Assessment will serve as Final Notification. The Notice of Availability of the Draft Environmental Assessment document will be published in the Los Alamos Daily Post. Public comment on the propose project and Environmental Assessment will be open for 30 calendar days. The Notice will include the name, proposed location and description of the activity, and an indication that portions of the action are located in floodplain and wetlands and will provide the public with an explanation of the final decision that locating the project in the floodplain and wetland is the only practicable alternative.
Step 8  Implement the action

Step 8 is the review of the implementation and post-implementation phases of the proposed action to ensure that the requirements stated in 44 CFR Part 9.11 are fully implemented. The proposed fuels reduction project will be conducted in accordance with applicable floodplain development requirements.

The County will adhere to the grant conditions outlined in the Finding of No Significant Impact issued for the EA for the proposed action.

The County will assure that this plan, as described above, is executed and necessary language will be included in all agreements with participating parties. The County will also take an active role in monitoring the construction process to ensure no unnecessary impacts occur within the identified wetland and floodplain areas nor unnecessary risks are taken.