

Activity Name: Stream/Riparian and Aquatic Habitat Restoration - DRAFT

Activity Name	
Description:	Restore, mitigate, or enhance instream, riparian, and floodplain habitat features and connectivity to improve overall watershed health, water quality, and to support native species and their habitat and improve fire resiliency.
Objectives:	To enhance and restore instream and riparian habitat and adjacent floodplain conditions to support properly functioning condition as it relates to the watershed condition framework and to support native species and their habitat. Stream and floodplain restoration which increase wetness in meadow systems also may also provide natural fire breaks and create fire resiliency.
Condition/ Situation Trigger:	The structure and function of site-specific and watershed-level conditions are not meeting or maintaining properly functioning watershed condition indicators (e.g. water quality, water quantity/flow, aquatic habitat fragmentation, channel shape and function, presence of life, presence of natives over presence of invasives, condition of riparian vegetation, soils (erosion and burn severity, other artificial features including roads and travels, loss of forest cover, terrestrial invasives, forest health). Other situational triggers may include maintenance of stream/riparian and aquatic habitat restoration projects.
Related Actions:	Aquatic organism passage / stream crossing; Springs / wetlands / cienegas; Meadow restoration; Road relocation;
Methods:	<p>Site-specific methods will follow approved design plans but may include but are not limited to increasing habitat complexity through the modification and/or addition of channel features, such as riffles, pools, and large woody debris, using a wide variety of constructed (e.g. rock weirs, rock vanes, one-rock dams, beaver dam analogs, boulder clusters, and root wads) and natural features (e.g. enhancing riparian obligate species habitat, vegetative planting). Site specific fencing may be necessary to protect restoration activities.</p> <p>Levels (High-tech restoration activities VS. Low-tech restoration activities) – Still under development.</p>
Equipment Used:	Equipment use will vary depending on design plans and material involved but may include, but not limited to, an excavator with a thumb, a small dozer, or a backhoe. Hand tools (e.g. shovel, come-along, pry bar, chainsaw, and Pulaski) could be utilized. Equipment use in designated wilderness will be determined by Minimum Requirement Analysis Framework (MRAF). Pack stock may be used for personnel, equipment, and material transport in areas without road access.
Timing:	Timing restrictions will likely be dictated by flow conditions (e.g. base flow vs. monsoonal periods), during extensive wet periods, and threatened and endangered species restrictions.
Duration:	Duration will vary widely depending on the extent of the work. Phased approaches may be used to help address timing restrictions or to facilitate multi-reach implementation or as maintenance needs arise.
Other Requirements:	Permit requirements may include Section 404/401 Clean Water Act permit, Cultural clearances, Outstanding National Resource Waters, Minimum Requirements Analysis, Section 7 Consultation.