Exhibit A
Copper and Sayre Fires Restoration Strategy (2024)

The Angeles National Forest and National Fish and Wildlife Foundation Partnership

In 2016, the National Fish and Wildlife Foundation (NFWF) undertook a cooperative partnership with the USDA Forest Service – Region 5 and the Angeles National Forest (ANF) to address the impacts of several wildfires in the Los Angeles Gateway Ranger District in a holistic way that would lead to compounded benefits for the affected landscapes and watersheds. For this partnership, the Forest Service dedicated primarily fire cost recovery settlement funds for planning and implementing restoration projects on the lands burned and affected by the fires.

The formal partnership and restoration efforts begun in 2016 will continue under partnership agreement 24-PA-11050100-008, as NFWF and ANF focus on restoration within the Copper and Sayre Fire areas. The *Copper and Sayre Fires Restoration Strategy (2024)* updates and replaces the *Copper and Sayre Fire Restoration Strategy (2017)* and will serve as the guiding document to aid in implementing projects that will advance post-fire restoration in an ecologically meaningful and measurable way. The 2024 Restoration Strategy is informed by the goals and objectives of the ANF Land Management Plan (2005) and is aligned with the broader context of the USDA Forest Service's national and regional fire restoration programs and initiatives, including the *10-Year Wildfire Crisis Strategy* (2022) and the *Postfire Restoration Framework for National Forests in California* (2021). The 2024 Restoration Strategy may be modified from time to time as changes to local, regional, or national Forest Service priorities occur.

Forest Wildfire Priority Areas

Copper Fire

In 2002, the Copper Fire (Figure 1), occurring predominantly within the San Francisquito watershed, burned approximately 20,000 acres of coastal sage scrub, montane chaparral, grasslands, and riparian corridor, as well as isolated bigcone Douglas-fir stands. The intense nature of the fire, coupled with the steep terrain and highly erosive soils of the watershed, resulted in loss of vegetative cover and significant sediment loading to San Francisquito Creek, which in turn resulted in particularly acute impacts to two endangered aquatic species: the unarmored three-spine stickleback and the California red-legged frog.

In addition, the loss of vegetation significantly exacerbated encroachment of invasive vegetation throughout the watershed, and facilitated an increase in illegal and damaging off-route OHV use. The Copper Fire also notably reduced the population of an endangered plant, the Nevin's barberry, among other rare and threatened native plant species on the Forest. Many cultural and historical heritage sites were also affected, including the site of the Saint Francis Dam Disaster National Memorial and National Monument (designated on March 12, 2019).

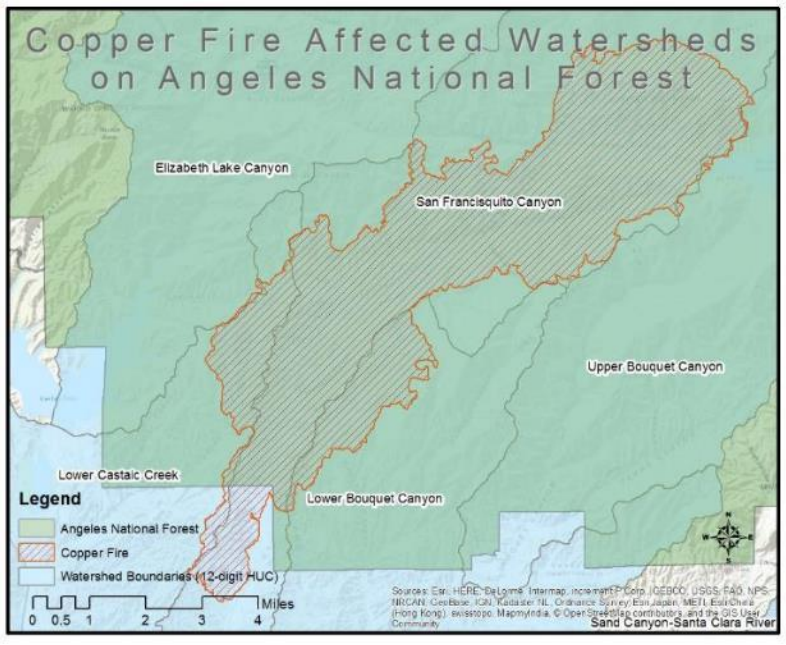

Figure 1: Copper Fire Affected Watersheds

Sayre Fire

In November 2008, the Sayre Fire (Figure 2) consumed approximately 95% of all vegetative cover across roughly 5500 acres of the ANF. The Bull Creek and Lower Pacoima watersheds were the most predominantly affected watersheds on USFS land, with some effects extending to the South Fork Santa Clara River watershed. The impacts from the Sayre Fire are consistent with the consequences of fire in the steep, chaparral covered environments of much of the ANF; the most significant are increased sediment from mass-wasting and erosion, the conversion of native vegetation communities to non-native grasses and noxious weeds, and the amplified threats of off-trail use by OHVs and other users, which further destabilize soils and provide opportunities for invasive plants to spread. Similar to other areas on the ANF, the increased frequency of overlapping or adjacent fires such as the Foothill Fire (2004) and Marek and Sesnon fires (2008) compound these effects across the landscape.

In addition, the Sayre Fire impacted miles of roads, trails, fuel breaks, and utility corridors, and burned through five hazardous waste sites, creating heightened risk for soil and water contamination. The extensive vegetative cover loss from the Sayre Fire also exposed microtrash, increasing the threat to the California condor population that frequents the western areas of the ANF.

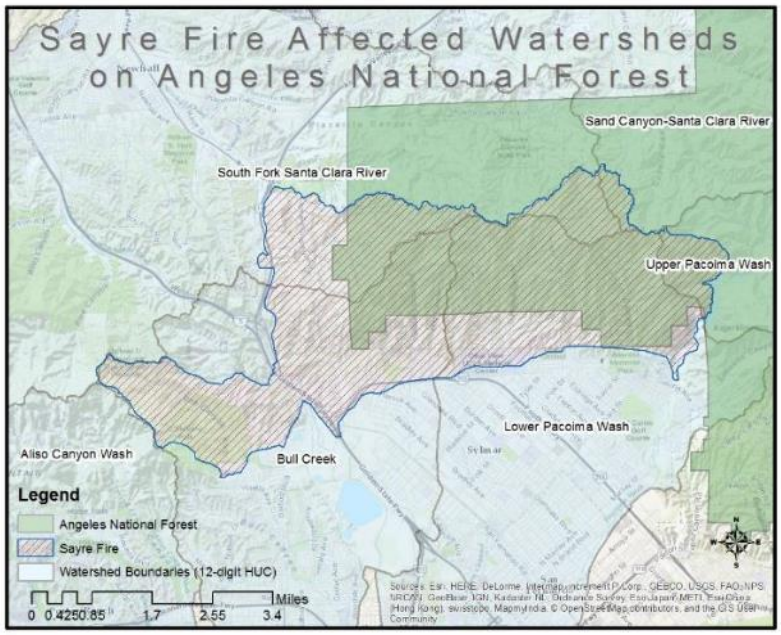

Figure 2: Sayre Fire Affected Watersheds

Angeles National Forest Fire Restoration Goals

The ANF fire restoration program aims to increase the pace and scale of conservation on the Forest through strategic partnership opportunities that 1) address the impacts to the watersheds and ecosystems affected by wildland fires, 2) provide sustainable and lasting ecological benefits, 3) promote ecological resilience to future wildfire events, and 4) inform efficient post-fire restoration through innovation.

The proposed conservation outcomes of the ANF fire restoration program, specific to the NFWF/ANF partnership, are informed by the following goals in the Angeles National Forest (ANF) Land Management Plan (2005): forest health restoration; invasive species management; and improvement of watershed function, riparian conditions, and native species habitat conditions. These goals are further described and expanded upon within the ANF Land Management Plan – Part 1 Southern California National Forests Vision, Part 2 – Angeles National Forest Strategy, and Part 3 – Design Criteria for the Southern California National Forests (USDA 2005).

Copper and Sayre Fires Restoration Strategies

The ANF and NFWF seek to implement a holistic, watershed-scale approach to fire restoration. In order to achieve program goals while operating within the constraints of the fire cost recovery settlement funding source, a variety of separate but complementary strategies and associated activities may be implemented; on-the-ground actions are preferred. The following strategies and examples may be employed through this program to contribute to reaching the ANF restoration goals.

Strategy 1: Watershed Restoration and Management

- Remove aquatic invasive species threatening aquatic habitat or sensitive species.
- Reduce pollutant loading and restore and/or enhance water quality and instream flow.
- Create, maintain, or improve in-stream, riparian, or wetland habitats.

Strategy 2: Forest and Upland Restoration and Management

- Evaluate forest ecosystems, such as oak woodlands, native grasslands, upland conifer, and chaparral and coastal sage scrub, and implement effective treatment/restoration actions.
- Harvest native seed and/or propagate native plants, and maintain, improve, or restore native ecosystems communities and resilient landscapes.
- Manage and improve ecological resilience to fire through invasive vegetation treatment, fuel break maintenance, vegetation community age-class structure restoration, and strategic fuels reduction.

Strategy 3: Species Management

- Evaluate and/or restore or improve conditions relative to a specific species, ecological community, or habitat type. Species of interest include, but are not limited to, bigcone Douglas-fir, unarmored three-spine stickleback, California red-legged frog, and southwestern willow flycatcher.
- Inform decisions and actions related to management and recovery of species/natural communities within fire affected watersheds (e.g., best management practices development).

Strategy 4: Public Use Engagement and Management

- Maintain, improve, and restore trails, roads, campsites, and other areas affected by fire or fire suppression activity.
- Restore areas impacted by unauthorized user-created trails, roads, or campsites.
- Develop educational and engagement opportunities to interpret the natural and cultural history on USFS land; integrate the role, impact, and history of fire in these Forest landscapes.

Program Evaluation

This document is intended to direct actions that result in measurable and beneficial improvement of the resource, and contribute to the fire recovery goals. Projects completed through this program will be required to quantify outcomes that align with the identified goals and strategies.

Examples of evaluation metrics:

- Acres of riparian habitat restored
- Acres of invasive species management completed
- Acres of chaparral revegetation completed
- Pounds of native seed harvested
- Miles of authorized Forest Service trail restored
- Miles of non-authorized user-created trails to be evaluated and/or restored