



Introduction and Background

Watershed Plan Description

Throughout the country, much attention has been focused on understanding biological systems at an ecosystem level, rather than from a species or site-specific level. “Ecosystem Analysis” provides a systematic way to characterize human, aquatic, riparian, and terrestrial features, conditions, processes and interactions and to estimate direct, indirect, and cumulative effects of associated land uses and activities.

Major Endeavors of the Upper Sevier River Community Watershed Project

- **Restoration and maintenance of watershed ecosystems**--including reduced erosion and improved water quality; improved flood-water retention and ground water recharge; stabilized streambanks; improved road and trail systems; and upland vegetation in advanced ecological status, except where resource objectives would require earlier successional stages.
- **Cooperation, coordination, and partnership**--a collaborative approach at the ground level is the only avenue to successful restoration and management within a large watershed shared by numerous landowners
- **Research** to provide the scientific basis for prescriptive project implementation, monitoring project effectiveness, and recommending adaptive management options
- **Demonstration and showcase of areas**, that through proper restoration and management, watershed-riparian areas can be maintained in healthy conditions while allowing a variety of uses.

--Upper Sevier River Community Watershed Project Business Plan, May 15, 2000--

Watersheds are hierarchical, with smaller areas described by subdividing larger areas. For the purpose of this assessment, the entire Upper Sevier River Basin, represents the largest area discussed in this plan, with smaller areas described as subbasins, watersheds and subwatersheds, respectively. The Upper Sevier “Watershed” is a 1.3

When we try to pick out anything by itself, we find it hitched to everything else in the universe.”
-John Muir



million acre basin, composed of 2 subbasins (USGS 4th field Hydrologic Cataloging Unit (HUC4)), 9 watersheds (USGS 5th field level HUC), and numerous smaller subwatersheds (USGS 4th field level HUC) (Fig. 1-1). A watershed consists of a well-defined land area with a unique set of features, a system of recurring processes, and a collection of dependent plants and animals, and as such, provides an ideal setting for conducting an ecosystem analysis.

Why Cooperative Watershed Management

While past watershed management efforts traditionally focused on commodity use (water, timber, minerals, etc., and how to achieve maximum output) today's efforts have evolved with the realization that watersheds are complex, and that land use, soil and water all interact and in turn, issues within a watershed overlap. In addition watershed management is concerned with human related activities such as agricultural practices, urban runoff, private property interests, beneficial uses, and recreation, in tandem with natural watershed processes.

Involving local stakeholders is key to success in watershed management planning and assessment.



While some may argue that specialized agencies have sufficient “scientific knowledge” to conduct watershed assessments, such reliance often results in inconsistent and fragmented efforts that may overlap or conflict, and are often times difficult to undertake because they lack “buy-in” from local interests. While a top-down approach may alienate local stakeholders in the policy-making process, relying on a bottom-up approach may be equally unsuccessful, in which local stakeholders may dictate management policy. Watershed management, in which stakeholders are empowered by their participation, not only helps everyone better understand issues, but also helps develop communication and leadership skills. Joe Gelt, Water Resources Research Center, University of Arizona, summarizes the benefits of this process:

“By working together and sharing information, stakeholders agree on ground rules to guide their participation in management activities. They come to an understanding about their particular roles and mutually agree on adopted priorities and shared responsibilities. With such broad and varied participation, the focus on environmental issues is thus broadened to also include consideration of social and cultural goals such as economic stability and quality of life issues.” (2000).

The Upper Sevier Watershed Plan characterized the ecological and social conditions of the watershed by empowering stakeholders to provide a context for future decisions within the watershed.

Questions Addressed During Initial Assessment

Natural Resources within the Upper Sevier Watershed are vital to local communities, both economically and for maintaining rural lifestyles of ranching and farming. If these values are to be sustained into the future, measures must be taken now to begin improving resources within the watershed, and include:

- **Water Quality** – How will water quality and quantity be ensured for local ranchers, farmers and communities, while also providing for the needs of recreationists, fish and wildlife?
- **Riparian and Upland Vegetation** – How will streamside and upland vegetation communities - that are resilient and sustainable - be maintained or restored?
- **Fire Safety** – Can private property be protected while using fire to improve forest and rangeland health?
- **Access** – Can access be provided to ensure that roads and trails do not degrade the environment?

Context for Cooperative Plan Development

During Summer 1999, the Upper Sevier Soil Conservation District initiated a Coordinated Resource Management Planning (CRMP) effort for the Upper Sevier River Basin mainly to address water quality issues (303(d) status) along the main stem of the Sevier River (Fig. 1-2). Shortly after an assessment effort in the Fall of 1999 to determine what could be done to improve water quality in the river system, the Dixie National Forest received funds to initiate a large-scale watershed restoration project within the Upper Sevier River and the East Fork Sevier River subbasins.

With the combined effort of the Upper Sevier Soil Conservation District and the Dixie National Forest, other resource management and regulatory agencies were invited to participate, as well as private landowners and the city and county municipalities. During meetings held in February 2000 with watershed stakeholders, it was decided to merge the CRMP effort with the Upper Sevier River Project to form one large scale restoration initiative (Fig.1-3).

The Upper Sevier Watershed Project is one of 15 efforts selected nationwide by the USDA Forest Service to implement holistic watershed restoration in cooperation with land management agencies, private landowners, and other interested parties. This project, as well as this document are governed by a Steering Committee consisting of people representing those interests (Appendix A).

Watershed Level Plan Assessment

Identifying issues and concerns in the basin related to land use and the natural environment was determined the first step by the Steering Committee. Technical Advisory Committees (TACs) (Appendix B), formed under the direction of the Steering Committee, recommended that a basin-wide assessment be completed to identify social and environmental issues, as well as identify priority treatment areas.

Assessment Level Description

The four geographic levels of reviews/assessments considered for this current plan, help provide the context to appropriately implement sustainable land management. These geographic levels are:

- Broad-scale Assessments (at the basin scale, USGS 3rd level HUC)
- Mid-scale Assessments (at the subbasin scale, 4th level HUC)
- Fine-scale Assessment (Watershed level, 5th level HUC)
- Site-scale Analysis (project level, 6th level HUC, National Environmental Policy Act (NEPA) analysis) (Figure 1-1)

The Upper Sevier Watershed Management Plan is a fine-scale look at ecosystem processes. It serves to bridge the gap between broad-scale and mid-scale information and decisions at the site-specific, project analysis scale. The watershed plan is not a detailed fine-scale analysis, but rather, a review of fine-scale issues and a priority-setting tool to identify and prioritize where to do more site-specific analysis.

Document Uses

This initial watershed management plan provides an analysis and assessment of the resources at a watershed scale. Again, in most cases, it does not provide site-specific information, but rather, a strong background to assist in determining site-specific analysis. Numbers (acres, miles, etc.) reported in this review may vary when an actual analysis is completed at a smaller-scale with more site-specific on-the-ground data.

Much of the watershed has its roots in ranching and agriculture. Maintaining those uses, while ensuring water quality and integrity is a priority for the Upper Sevier Watershed.



Relationship to Federal Land Management Plans and other Documents

The Upper Sevier Watershed Management Plan tiers to other Land Management Plans. While such documents as the Forest Land Management Plan and the Bureau of Land Management Plan, provide more broad-scale guidelines, the Upper Sevier Watershed Management Plan focuses more on specific areas and issues. Recommendations within this plan are not meant to supersede those identified throughout other agency documents, but simply act as a guide to improving watershed conditions.

...all ethics so far evolved rest on the single preimse that the individual is a member of a community of interdependent parts...the land ethic simply enlarges the boundaries of the community to include soils, water, plants, and animals, or collectively: the land."

--Aldo Leopold

Level of Assessment

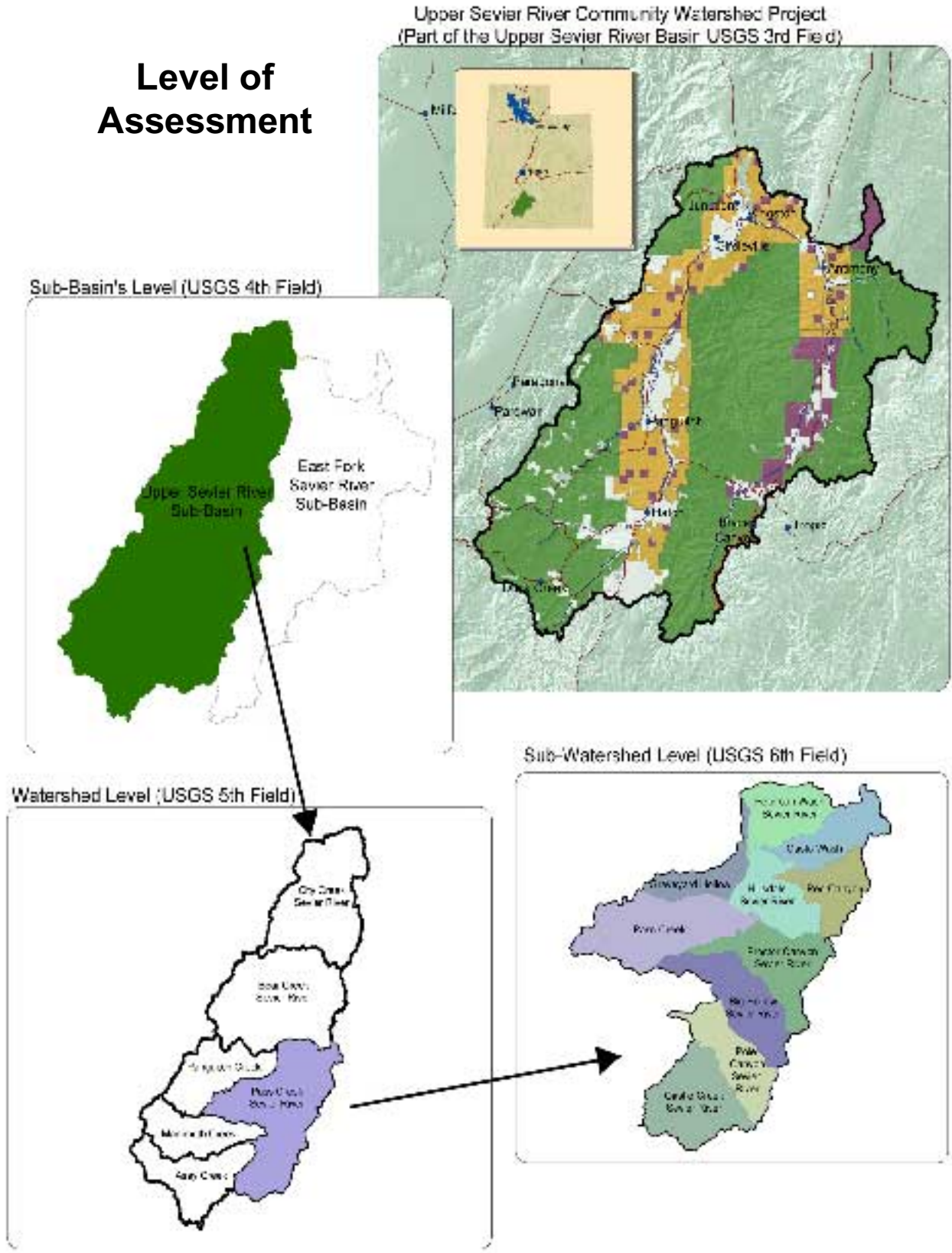


Fig. 1-1. The Upper Sevier Watershed Management Plan examines issue at the watershed level (USGS 5th field HUC). There are nine 5th field watersheds within the Upper Sevier River Basin.

Priority Water Quality Treatment Areas Identified during Initial Basin-wide Assessment, Fall 1999

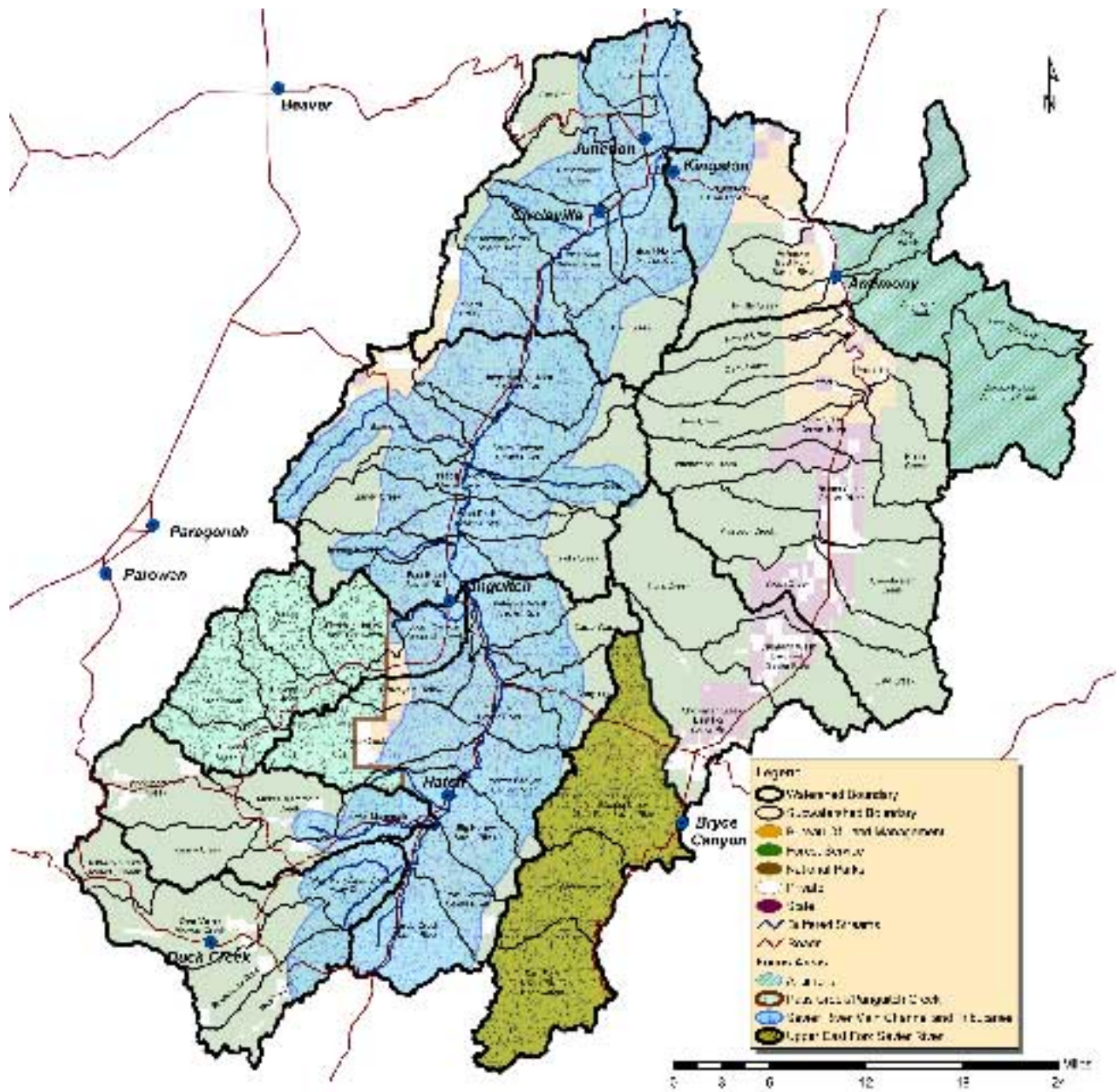


Fig. 1-2. Priority focus areas were established during the initial basin-wide assessment during Fall, 1999. Efforts continue to be placed in these areas; however, recent work has evolved into a watershed management plan to help develop priorities within the whole Upper Sevier River Basin.

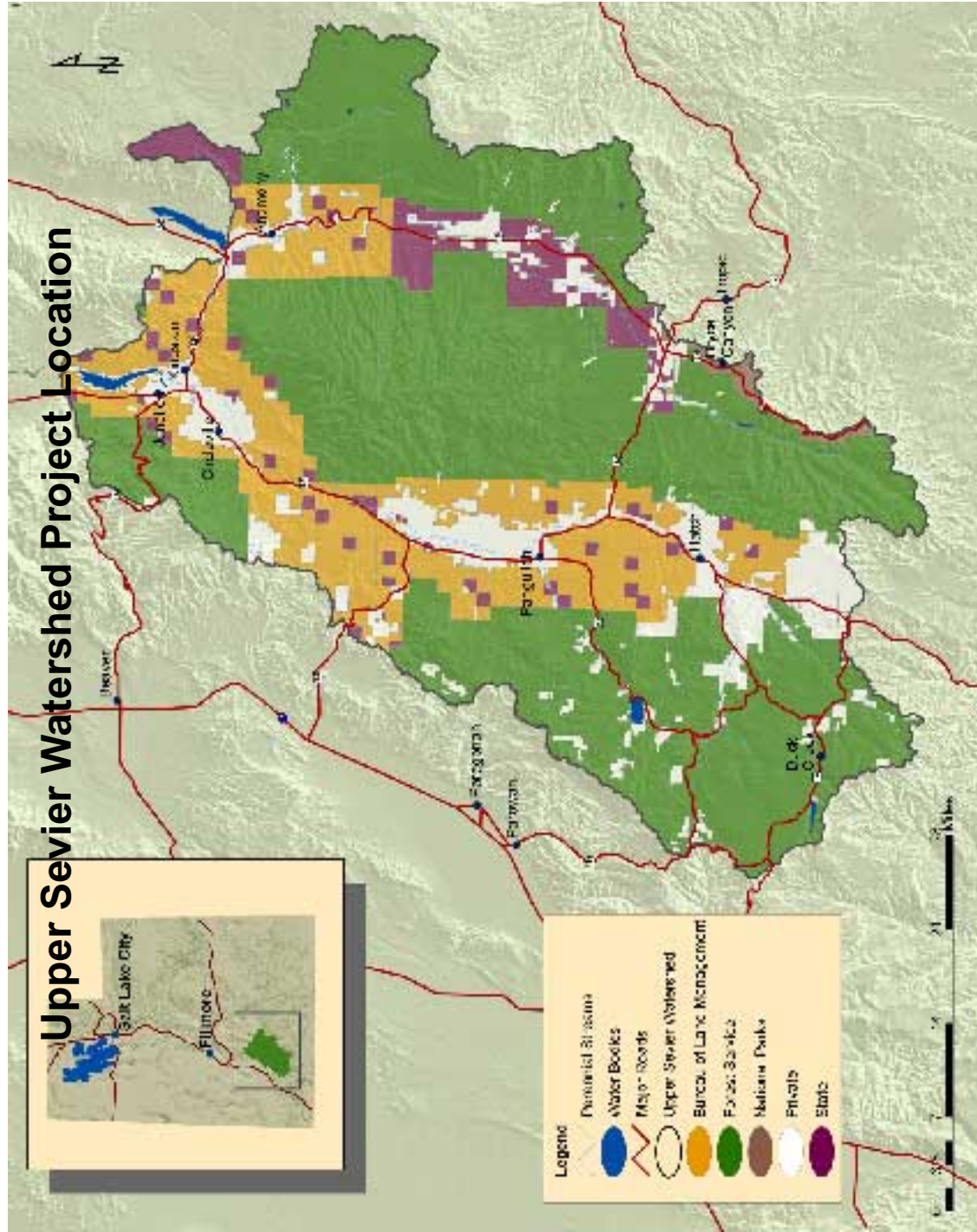


Fig. 1-3. The Upper Sevier Watershed Project is one of approximately 15 efforts selected nationwide by the USDA Forest Service to implement holistic watershed restoration in cooperation with land management agencies, private landowners, and other interested parties. The watershed, located in south-central Utah, is a 1,324,899 acre area covering the headwaters of the Sevier River in Beaver, Garfield, Iron, Kane, Piute and Wayne counties.

