

Conservation Study Forum's

Recommendations for

SPRINGS AND SEEPS

Background

Springs are important to Flagstaff history and ecology. Flagstaff was originally established where it is because of the springs here. Antelope Springs (now called Old Town Springs), San Francisco Springs near the Museum of Northern Arizona, and Leroux Springs are especially important in Flagstaff history. Many of the first parties of explorers camped at Leroux Springs, Antelope Springs, San Francisco Springs and Turkey Tanks because water was dependable there.

Ecologically spring seeps, streams and wetlands are very important to the diversity of plants and animals in the area. Many of the Flagstaff area wetlands and some springs are ephemeral meaning that they dry up for part of most years. None the less ephemeral springs, seeps and wetlands are important providing plant diversity, and food, and cover for wildlife even when there is no water on the surface.

Water is still a need and sometimes a concern. Because of their significance historically and ecologically, and because they cannot be built over without special efforts to divert the water we should protect our remaining springs and seeps.

How to Identify

A spring is a site where underground water rises to the surface of the ground and usually flows across the ground. A seep is site where underground water rises to the surface but only results in damp soil and does not usually flow across the ground.

Known springs and seeps are found on maps 7 and 8 in the Regional Plan. Many springs and seeps in the Flagstaff area can be found in the database of the Springs Stewardship Institute at www.springstewardshipinstitute.org and are also found on USGS topographical maps. Springs and seeps should be combined with wetlands in mapping and assessed during the natural resource site visit.

Protection Standards

Protection standards for springs, seeps and riparian areas should be included under Floodplains in the Resource Protection Standards of the zoning code. Springs, seeps, and wetlands should be afforded the same protections as floodplains. Many are already protected since they fall within the 100 year floodplain.

Buffering of springs and seeps should be sufficient to maintain or restore water quality and volume. Seeps and spring should be protected by a buffer of 20 to 150 feet from the edge of the damp soil. A site visit is required to determine appropriate size of the buffer. The buffer should be large enough to allow the vegetation naturally occurring there to filter out debris and keep them from entering the spring. Activities upslope of a spring/seep should not contribute additional runoff or sedimentation into the immediate area around the spring/seep.

Water flow and wildlife connectivity should be maintained.