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Stop 1 of the La Sal Loop Driving Tour

Here at stop number one you are at the top of Spanish Valley, which extends to the northwest towards Moab. As you look to the east, the tallest peak in the La Sal Mountains is Mount Peal at 12,721 feet elevation which lies directly behind the sharp pointed peak called Mount Tukuhtivatz. As you look north from Mount Peal, you come to Mount Mellenthin, Haystack Mountain, Manns Peak and Mount Waas. With the exception of Haystack, all are over 12,000 feet. On a clear day, you can also see the Blue Mountains which lie to the south, just west of Monticello, and the Henry Mountains to the west which are more than 80 miles away near Hanksville.

Most of the trees in the immediate area are either [Utah juniper](#) or [pinyon pine](#). The pinyon pines are the trees with the smoother bark and two to three inch long needles. They also have woody cones and produce pine nuts, which were heavily used by Native Americans and are still frequently gathered for home use or sold. Many of the pinyons at this stop are infested with a parasitic plant called dwarf mistletoe. Although dwarf mistletoe does not generally kill trees, it weakens them and makes them more susceptible to insects and diseases.

The Utah junipers have a more yellowish-green look and scaly leaves instead of needles. Junipers have shredding bark and are conifers like pines, but with seeds enclosed in a small blue cone that resembles a fleshy berry instead of the usual woody or papery cones found on most conifers. The seeds and especially the bark of juniper were heavily used by Native Americans for a variety of products such as sandals and bedding. Both species are commonly found growing together throughout Utah in what are often referred to as pinyon-juniper or PJ communities. Forests need more water than is available in the lower Utah valleys, and the PJ communities tend to be the first you come to as you go up in elevation from the drier valley floors into the moister mountains, so both species are very drought tolerant.

To the south of this stop is a small community called Pack Creek. Many of the homes are within what is called the wildland-urban interface. This interface is where human habitations extend into wildland areas that contain fire-prone vegetation, creating a wildfire hazard that didn't previously exist. Thinning and pruning of trees or removal of vegetation around the Pack Creek community has been completed by the Utah Division of Forestry, Fire and State Lands; this work is referred to as fuel reduction. Reducing the

amount of fuel in the area is an important step in creating a [firewise landscape](#) around homes.

Stop 2 of the La Sal Loop Driving Tour

To the east of this site, the bare peaks of Haystack Mountain and Manns Peak can be seen clearly. This view provides a good illustration of how the increased precipitation at higher elevations affects which tree species are present. In the foothills and valleys surrounding the mountains, particularly to the north, you can see the drought-hardy pinyon-juniper woodlands. Oak woodlands start to occur at slightly higher elevations, including the elevation of this stop. As you look beyond the broad mesa in front of Haystack Mountain (called Boren Mesa), wide bands of moisture-loving aspen can be seen, particularly in the fall when their bright colors contrast sharply with the surrounding vegetation. At the highest elevations below timberline, pure forests of spruce and fir dominate. These tree species need considerably more moisture than the trees found below. On the high peaks above timberline, even the conifers come to an end because the climate is too cold and windy and the growing season too short to support any trees. This area above the tree line is called the alpine tundra, and the La Sal mountains are one of only three areas on the Colorado Plateau where this type of ecosystem exists.

The view to the north of this stop across the Mill Creek drainage is dominated by the pinyon pine and Utah juniper woodlands described at Stop 1. Pinyon-juniper woodlands are estimated to compose 49% of the total forest land in Utah. In recent years, scientists and managers have been growing concerned about the encroachment of these woodlands into areas that used to be dominated by grasses and shrubs. It is estimated that before Europeans settled the area, pinyon and juniper trees were present on only one third of the land that they occupy today. Pinyon-juniper woodlands are also much more dense than they were prior to European settlement. Scientists believe that many factors have contributed to the expansion of these pinyon-juniper woodlands, including overgrazing, fire suppression, and perhaps climate change. Pinyon-juniper encroachment is problematic for many reasons. By taking over areas that were once dominated by grasses, pinyon-juniper woodlands decrease the amount of forage available for wildlife and livestock. Also, the increased density of these woodlands makes individual trees more susceptible to insect attacks, since they are stressed by competition for limited light and moisture. Dense pinyon-juniper woodlands are also at increased risk for intense “crown” fires that burn through the tops of trees if the wind is strong enough. These fires are much more destructive than the small surface fires that burned in the more open grass and woodland ecosystems of previous centuries.

Stop 3 of the La Sal Loop Driving Tour

Stop number three is still fairly dry, but the vegetation has changed significantly as you have moved into an area with a few scattered pinyons and junipers but also with a large

amount of shrubs and grasses. The shrubs at this stop include sagebrush, mountain-mahogany, and Wood's rose, but most of the vegetation is either Gambel oak or serviceberry. Gambel oak is one of the only three oaks native to Utah, and the only one that grows in this area.

[Gambel oak](#), also known as scrub oak, is the multi-stemmed tree with dark green, lobed leaves. It typically doesn't reach more than 10 feet high. As you walk or drive around, try and find the two growth forms for Gambel oak. The thick, dense shrub form limits access to the young leaves and acorns as food for wildlife and livestock. The larger tree form allows grass to grow beneath while providing both food and shelter to deer, elk and other animals. Gambel oak is also unusual amongst oaks in that it will sprout new shoots quickly when the tree is either grazed heavily or burned; because of this characteristic, it is often the first tree in these areas to come back after a fire.

[Serviceberry](#) is another shrub-like tree with small rounded leaves that is quite common in the area. In the northwest corner of the intersection at this stop you will find a thick stand of serviceberry. The entire plant is considered an important forage species for wildlife, including the small apple-like fruits that appear on the shrub in the summer.

Stop 4 of the La Sal Loop Driving Tour

Stop number four is the Castle Valley overlook. As you look to the northwest you should be able to see the spectacular red rock pinnacles of Castle Valley. Looking to the north and east, you can clearly see the aftermath of the Porcupine Ranch fire, which burned approximately 3,500 acres in August 2008.

The large valley seen below this point and to the north is the Pinhook Valley. On August 27, 2008 lightning ignited a fire at the lower end of the valley. The fire started in pinyon pine and Utah juniper but quickly spread into Gambel oak. These shrubs and trees are extremely combustible and also fairly close to the ground, which allowed the fire to quickly gain speed and move up the Pinhook drainage into the mountains to the southeast.

As the fire gained elevation, it reached stands of aspen and Douglas-fir. Aspen and Douglas-fir tend to be less combustible than oak, pinyon pine, and juniper. The change in vegetation reduced the intensity of the fire, and it soon calmed down enough for firefighters to put in containment lines. Most of the fire spread that you can see from this stop occurred in less than four hours, which meant there was very little time for firefighters or visitors in the area to react. Two forest visitors were hiking from the Miner's Basin trailhead when the fire ignited. They managed to climb a ridge to safety, but their vehicle was destroyed by the fire.

The mountains to east of this stop are Grand View and Horse Mountain. Much of the vegetation on the steep slopes of these mountains burned during the fire. The lack of vegetation makes the risk of erosion very high. Because of this risk, a Burned Area Emergency Response (or BAER) team distributed woodstraw on these steeper slopes to

stabilize the soil and speed post-fire recovery. The BAER team also laid out conventional, agricultural straw on the lower, less steep portions of the mountain.

If you drive about a mile and half further down the road, you will see a turnoff to the left (west). This is the Pinhook Valley road. Drive down it to see the effects of the Porcupine Ranch fire up close. As you can see, almost all of the trees in the valley are burned from base to crown, illustrating the intensity of this fire. This is also the location of the historic Pinhook Battleground.

Stop 5 of the La Sal Loop Driving Tour

Stop number five is located just north of the Pinhook Valley. As you can see, the Porcupine Ranch fire actually burned across the road here. This stop provides a good vantage point to observe how the topography of the valley contributed to the spread of the fire. On the day of the fire, strong winds blew in from the northwest. These winds intensified the fire and pushed it to the east up the valley. The uphill fire movement and narrowing topography of the valley acted as a funnel, allowing the fire to gain speed quickly.

As you look down into the Pinhook Valley, keep an eye out for new Gambel oak shoots. Most of this area will not be reseeded because the oak likely will regenerate quickly on its own. In the months immediately following the fire, limited precipitation prevented oak regeneration in the valley, but new sprouts began to show up before Christmas 2008. At the base of the Pinhook Valley 20 acres will be reseeded with Gambel oak because of immediate concerns about wildlife habitat over the winter. Repair of a damaged fence and water developments will also occur.

Looking to the east along the switchbacks below this viewpoint is a large fire-killed ponderosa pine on the west side of the road. Ponderosa pines are not especially abundant on this side of the mountain but as you travel to the south towards the town of La Sal they become a dominant species. They have a thicker bark layer which insulates them from damage during low intensity fires that stay close to the ground. Ponderosa pines naturally grow in open stands with a lot of space between trees, and they rely on frequent surface fires to preserve the openness and health of the stand. However, in this case you can see how the fairly dense vegetation surrounding this pine, as well as the steep slope just south of it, allowed the flames to burn high and hot around the tree, killing it.

As mentioned at the previous stop, the majority of this fire burned in only four hours. If you have a home or cabin in an area such as this, the best thing you can do to increase its chance for surviving such a fire is to create a fire-safe zone near the home with low amounts of vegetation and flammable debris. Ask your local fire department for more information on fire safety in the wildland-urban interface.