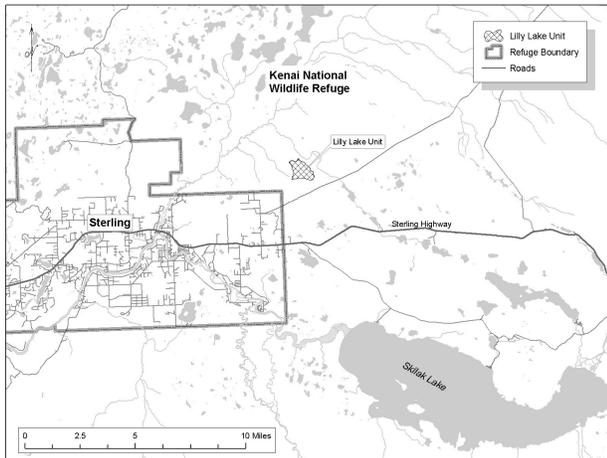


# Refuge plans prescribed fire northeast of Sterling

by Doug Newbould



Map of Lily Lake Clarion. USFWS.

In our ongoing efforts to mitigate the adverse impacts of wildfire upon the communities of the Kenai Peninsula, the Kenai National Wildlife Refuge is planning to activate the Lily Lake Prescribed Fire Plan this year. The Lily Lake project is designed to reduce hazard fuels—in this case, black spruce—within the wildland-urban interface near the community of Sterling.

The 431-acre Lily Lake unit is a dense, continuous stand of black spruce on the Moose River Flats between the East Fork Moose River and the northeast corner of the Sterling Corridor (that area of private and public lands between and including the communities of Soldotna, Sterling and Funny River, and surrounded on three sides—north, east and south—by the Kenai National Wildlife Refuge).

For those of you who have lived in the area and witnessed management activities on the Refuge over the past 20-40 years, you might remember previous fuels treatments adjacent to the Sterling Corridor. In the 1970s and 80s, refuge employees mechanically ‘crushed’ and/or ‘chopped’ about 20,000 acres of black spruce within the Skilak Lake (1947) and Swanson River (1969) fire scars.

Those mechanical treatments were designed to break down the impenetrable, unsightly (to some) thickets of blackened spruce poles that remained after those wildfires burned across much of the northwest

Kenai Peninsula. The treatments were also designed to improve habitat for moose and other species. Some of the crushed areas were subsequently treated with prescribed fire—to further reduce down, dead woody fuels and to improve moose browse.

After many years of research and treatment monitoring, we have found these combined treatments (mechanical and prescribed fire) to be the most effective in converting areas of black spruce to early- or mid-seral communities composed of grasses, forbs, shrubs and deciduous trees. These hardwood communities, in addition to the habitat benefits they provide, are fire-resistant. Fire resistance, in this context, means that the forward rate of spread of an approaching wildfire (often a running crown fire in black spruce) will be greatly slowed or stopped when it reaches the hardwood stand. And better yet, a healthy hardwood stand of aspen, birch or poplar can provide a ‘natural’ barrier to wildfire for 50 years or more.

The Lily Lake unit is actually the fourth unit to be treated in the Lily Lake area east of Sterling. The first three units were successfully treated—mechanically and with prescribed fire in the late-80s. Those units, as well as units within the Skilak Loop and near Mystery Creek have been converted to hardwood forest over the past 20 years. The fourth Lily Lake unit will complete the northern end of the planned ‘chain’ of converted forest stands between Skilak Lake and the Moose River—a living fuelbreak between the wildlands of the Refuge and the communities of Sterling and Funny River.

The Lily Lake Prescribed Fire Plan calls for the unit to be burned in two separate operations or phases. Phase-1 will burn the 184-acre crushed outer ring, the width of which varies between 300 and 600 feet. The first phase is designed to be a low-risk prescribed fire, with relatively short flame-lengths, little spotting potential and a low risk of escape. Phase-1 will create a secure fireline around the entire unit and lessen the relative risk of Phase-2.

Phase-2 will burn the 247-acre ‘donut hole’ or island of standing black spruce at the center of the unit. The first phase is planned for early in the fire season (early June). The second phase is planned for later in

the season, after the ground fuels have dried out sufficiently to promote consumption of the mosses and duff and expose soils in a mosaic pattern. Soil exposure is one of the essential ingredients in our recipe for converting black spruce to hardwoods. Without duff/moss consumption and soil exposure, the likely outcome of this project will be the regeneration of black spruce.

If for some reason we are unable to burn Phase-1 in early June, as planned, we may wait until later and combine the phases into one event. If that happens, we will still burn the outer ring first, creating a secure fireline, before igniting the island of trees in the unit's interior. And whether we conduct the prescribed fire project in two entries or one, there is the possibility

of residual smoke in the area of the burn for up to a week after ignition, especially at night when local winds tend to subside and smoke settles in low-lying areas.

If you live in the Adkins Road area, in Sterling, or anywhere within the Sterling Corridor, we want to talk with you about our project plans and address any of your comments or concerns before we begin prescribed fire operations. Please call Dianne MacLean, the Refuge Assistant Fire Management Officer, or me at (907) 260-5994.

*Doug Newbould is the Fire Management Officer for the Kenai National Wildlife Refuge. Previous Refuge Previous Refuge Notebook columns can be viewed on the Web at <http://www.fws.gov/refuge/kenai/>.*