Athel (*Tamarix aphylla*) and Athel hybrid (*Tamarix aphylla X Tamarix ramosissima*) Establishment and Control at Lake Mead National Recreation Area.

Carrie Norman, Curt Deuser, and Josh Hoines
Lake Mead National Recreation Area, 601 Nevada Highway, Boulder City, Nevada 89050

Athel is a large evergreen ornamental tree that has been planted throughout the Southwest since the 1950’s. Athel was considered benign because it was thought to produce non-viable seed unlike its invasive relative, tamarisk. However, athel began establishing in the wild from seed on Lake Mead in 1983. Lake Mead NRA has been actively controlling athel since November 2004 along the high water mark of Lake Mead shoreline (439 miles) to prevent it from spreading throughout the Colorado River Drainage. The NPS contracts Nevada Conservation Corp crews and the Lake Mead Exotic Plant Management Team to implement the control efforts of athel and the hybrid. Since 2004 Lake Mead NRA has controlled 72,156 athel and 11,749 hybrids. Control methods have been effective and follow up monitoring and retreatment is planned during the 2009 field season. Based on observations at Lake Mead NRA, the invasive potential of athel is high, particularly in light of its hybridization potential with tamarisk thus creating a new noxious weed. Natural resource land managers should be vigilant in monitoring current athel populations to ensure they do not become invasive or hybridize with tamarisk.

**Methods**

**Action:** Hack N’ Squirt (Cut into cambium layer of tree and spray with herbicide)

**Equipment used:** Hatchets and backpack sprayer

**Herbicide:** Garlon 4 at 20% mixed with JLB oil (vegetable based oil)

**Labor:** 8-15 person crews

**Documentation:** A GPS is used to record accurate locations of treatment areas.

Each field season the crews work about seven or eight tours (eight - 10 hour days equals a tour). They work between the months of November and March. This allows them to identify athel and athel hybrids much easier once the tamarisk leaves have dropped.

**Leaf:** Alternate, evergreen, very small, 1/16 inch and scale-like, gray-green.

**Flower:** Small (1/8 inch), light pink to lavender, numerous and occurring in narrow clusters at the ends of twigs, very attractive in bloom, appearing in spring and summer.

**Fruit:** Small (1/4 inch long), dry, pointed capsule containing numerous cottony seeds, maturing in late summer.

**Twig:** Slender, drooping, covered in scale-like foliage.

**Bark:** Smooth, gray or reddish brown when young, later develops flat ridges and reddish furrows, becomes very coarse and furrowed on large specimens.

**Form:** An upright tree with drooping twigs reaching up to 60 feet tall, dense spreading crown with several heavy large limbs.


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<th>Field Season</th>
<th>Athel Treated</th>
<th>Hybrid Treated</th>
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