Beavers create diverse habitats that act as firebreaks, keep water in a riparian system, restore wetlands, sequester carbon, and more. When possible, coexisting with beavers in the wildland urban interface is the easiest solution.

- Lethal removal of beavers from a habitat is not a permanent solution. If the habitat remains, the recolonization rates are extremely high within a short time.
- Relocation of beaver is difficult and costly, with few facilities and experts available.

Tree damage by beavers can be prevented with physical barriers.

Aspens, willows, and cottonwoods are preferred by beavers. They have co-evolved with beavers, and are quick to sprout after chewing. Brush-sized willows without a large main stem are left unfenced at the Swaner Preserve as chewing stimulates new growth and they grow back quickly. Other trees species can be targeted, but conifers tend to be left alone if other options are more readily available.

Painting

- Exterior latex paint mixed with sand, painted onto the tree bark can be an effective short-term solution, but may not deter beavers forever.
 - Paint can be color-matched so it is not as visible.
 - The tree should be painted 3 feet above the ground. Additional height should be added to reflect the winter snowpack in the area.

Fencing

If the area where trees are located is not fenced, then each tree that you'd like to protect should be fenced individually or in clumps.

• If there are many trees, prioritize wrapping: fall path- onto homes, fencing, or infrastructure, size, sentimental connection, services provided- shade, erosion control.

Other tools needed:

- Wire cutters
- Measuring tape or string for estimating tree circumference.
- Needle nose pliers
- Gloves and eye protection
- Clippers or loppers for removing low branches
- Landscaping staples, 4 inches or longer
- Hog ring pliers with wire rings to secure ends, or zip ties can be helpful and quicker than bending cut ends around each other.

Fence specs:

- Height: a 4 foot fence height is ideal. If the trees are in a location with a high snowpack, then a taller fence might be needed.
- Grid: 2 in. x 2 in. grid has proven the most effective. Small grids with a thick gauge resist force and prevent reaching through grid.

- o 4 in. x 4 in. fencing is too large, and beavers are able to reach through if close to tree.
- Chicken wire is not strong enough, and can be pulled down or squashed by beavers or environmental factors.

Cut a piece of fencing that is longer than the tree's circumference. The wrap should leave room for tree growth over time. Wrap the tree's main stem or stems in the fencing, and attach the ends by bending the cut ends around the fencing, or attaching with zip ties or chain link rings. Low limbs may need to be trimmed or cut to make room for the fencing. Fencing should sit flush on the ground without cutting into the tree bark, and can be secured with 2-3 landscaping staples. Sloped hillsides may require a larger diameter of fencing per tree.

Product suggestions:

- Fencer Wire 10 Gauge Galvanized Welded Wire Mesh Size 2 inch by 2 inch (4 ft. x 50 ft.) has proven to be the most effective and long-lasting fencing. It is durable and can be moved and re-used if needed.
 - o Available on Amazon.

Other notes

- Plastic sheaths around trunks or newly planted trees are not effective in preventing beaver herbivory.
- Other fairly inexpensive fixes exist to protect culverts from damming and to maintain and control pond levels. More information is available.
- Other resources are available and helpful.
 - o <u>The Beaver Institute</u>
 - o Facebook Group: Beaver Management Forum



Above:

- **1 and 2.** Small grid, welded wire fencing is most effective. Rebar or t-posts can also be used to reinforce. This tree is both painted and fenced.
- **3.** Evidence of beaver chew on aspen. Hand for scale of tooth marks. Beavers can take down a tree like this or larger in one night.

Contact Rhea Cone, Conservation Coordinator at the Swaner Preserve and EcoCenter, at rhea.cone@usu.edu or 435-797-8956 for more information.