



# Grassland Restoration – The Importance of Partnerships and Momentum

## Nebraska National Forests and Grasslands – Sandhills Units

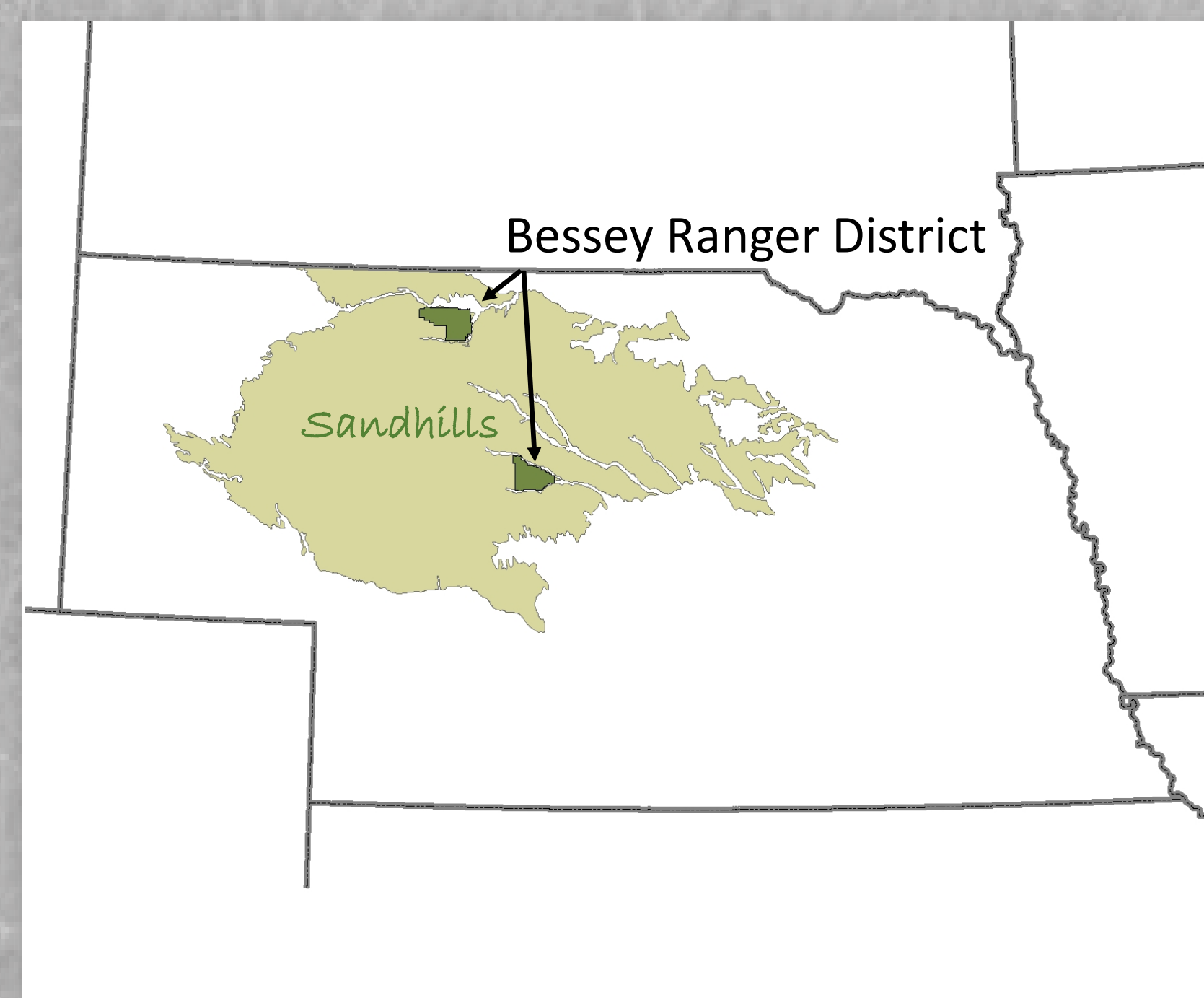


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| Year:                        | 2000-2014        | 2015                                  | 2016                                  | 2017   | 2018   |
|------------------------------|------------------|---------------------------------------|---------------------------------------|--|--|
| Acres Improved:              | 1,000 (annually) | 2,500                                 | 2,800                                 | 8,000  | 10,000 (projected)   |
| Supplemental Funding Source: | None             | National Fish and Wildlife Foundation | National Fish and Wildlife Foundation | Joint Chiefs Landscape Restoration Partnership + National Fish and Wildlife Foundation | Joint Chiefs Landscape Restoration Partnership + National Fish and Wildlife Foundation |



In the Nebraska Sandhills region of the Great Plains, unmanaged eastern red cedar (ERC) poses a growing threat to desired native species diversity and the ranching economy. Its lack of susceptibility to land conversion only increases the projected role of the Sandhills for grassland bird conservation into the future. Historical disturbance processes such as fire and soil movement that maintained grassland ecosystems no longer exist, and land managers are tasked with prioritizing limited resources to control ERC across a 12.3 million acre landscape. It is increasingly important for public land management agencies, conservation organizations, and private landowners to coordinate efforts and work across boundaries to affect change on a measurable scale. We demonstrate the value of partnerships, momentum, and outside funding in achieving long term land management goals.



### Nebraska Sandhills:

- 12.3 million acres of intact grassland habitat
- Great importance to grassland birds
- 2<sup>nd</sup> in waterfowl nesting habitat after prairie potholes
- Less susceptible to land conversion by humans

### Eastern red cedar encroachment:

- Threat to grassland birds and ranching
- Encroachment accelerates fragmentation of prairies
- Precipitous increase – erosion aids germination

**The Problem:** Eastern red cedar encroachment is outpacing management activities to control it.

**The Solution:** Create momentum and leverage partnerships to increase capacity and efficiency for treating ERC.

#### Step 1: Identify partners with similar goals

- Rainwater Basin Joint Venture; Sandhills Task Force; Natural Resource Conservation Service; U.S. Fish and Wildlife Service Partners for Fish and Wildlife; Nebraska Game and Parks Commission; Private Landowners

#### Step 2: Identify potential funding sources

- National Fish and Wildlife Foundation
- Joint Chiefs Landscape Restoration Partnership (NRCS/USFS)

**Step 3:** Leverage matching contributions and involvement by partners to make conservation a better value

- Cutting/piling reduced to \$55/acre
- Prescribed burning reduced to \$30/acre

#### Step 4: Increase capacity to make measurable landscape changes

- Purchase machinery capable of effectively treating sandy soils
- Hire more personnel to accelerate accomplishments and create more “NEPA ready” projects

**Step 5:** Use momentum to demonstrate progress, show value, and increase likelihood of receiving future funds

**Result:** By prioritizing and focusing on a large issue that impacts multiple resources, restoration was able to be increased 10-fold in just 4 years.

**Summary:** The cost of conservation delivery can vary widely depending on the given resource issue, necessary treatment, and scale of the problem. Startup costs associated with restoring Sandhills grasslands can be exceptionally high because of the equipment needed to cut trees (skid steers), prep burn lines (mower capable of handling sandy terrain), and personnel needed to conduct burns in excess of 1,000 acres. To completely eliminate ERC invasion in the Sandhills, large trees must be mechanically removed and fire applied periodically to kill seedlings.

Through an initial grant from the National Fish and Wildlife Foundation’s (NFWF) Keystone Initiative for the Northern Great Plains, over 5,000 acres of ERC invasion on public lands were controlled mechanically and in excess of 40,000 acres were enhanced by implementing improved grazing regimes during 2015-2016.

In 2016, the Bessey Ranger District partnered with the Pine Ridge Ranger District and the Natural Resource Conservation Service Districts in northwest Nebraska to receive a Joint Chiefs Landscape Restoration Grant. This program increased the district’s capacity to treat ERC at a larger scale via seasonal employees and rental equipment. With these funds, the Bessey Ranger District is now able to treat nearly 10,000 acres of ERC annually, which outpaces ERC encroachment across the grassland portions of the district.

In 2017, the district was awarded another NFWF grant to promote prescribed burning of ERC to include private lands adjacent to the Forest Service’s boundary. These treatments further regional priorities of connecting with communities and maintaining resilient landscapes. Cooperative work done under this grant has served to spread awareness of ERC prevention and the value of prescribed fire in improving habitat within this fire-adapted ecosystem.



**Acknowledgements:** We thank our partners and funding sources. Without their help this important work towards protecting the future of the Sandhills grasslands would not be possible.