



### **PROJECT 6-1 Ash Replacement in the Knife Watershed Riparian Corridor**

**Background:** There are 176 miles of perennial water in the Knife River system of which 22 miles intersect with Black Ash timber type.

**Problem Statement:** Stream water temperature is a limiting factor for trout survival in NE MN streams. Ground water inputs are very limited and usually a minor component of base flow. Cold water is maintained in our region by virtue of climate. Riparian shade is an essential component in keeping stream temperature cool enough to support trout. Black ash is a major riparian shade producer. We face a future threat of regional ash loss from emerald ash borer (EAB). The future impact on stream water temperature from ash and resultant shade loss will be devastating to systems where ash is a major riparian component. We have a window of opportunity to establish replacement trees in critical areas now composed of ash. EAB arrival should be delayed by implementing preventative measures which are currently underway or being developed. Suitable replacement trees should have time to reach shade generation size before loss occurs. Inaction will likely result in ash replacement by reed canary grass and cattails.

**Goals:**

1. Prioritize knife river system riparian ash into zones of high to low impact areas
2. Work with forest specialists to identify suitable replacement tree species for high priority sites taking into account climate shift and species identification for assisted migration. (White Cedar may not be the right replacement).
3. Secure suitable plant materials and establishment in high priority areas.

**Priority:** Medium

**Task Duration:** 5 to 10 years

**Potential Mechanism:** GLRI, LSOHC, EQIP (private land)

**Potential Partnering Organization(s):** MNFRC, USFS, USFWS, NRRI, EPA

**Estimated Cost:** \$100,000

**Comments:**

**Special Considerations:**

**Accomplishments:**

**Measure(s) of Success:**

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*Vision Statement: Maintain, protect, and restore healthy cold water ecosystems with relatively stable flows and a diversity of habitat for fish and wildlife to enhance our quality of life.*

*For project information: [www.lrcd.org/links/lsc\\_projects.htm](http://www.lrcd.org/links/lsc_projects.htm)*