

To; Kirk Piehler
From; Steve Sjogren
Re; Kirtland's Warbler Reforestation

March 18, 2005

As requested, I reviewed the document KW Management Costs (where does all the money go) prepared by the silviculture shop and Faxed to me on February 15, 2005. I also discussed costs and options with Biologists and Foresters from the Huron-Manistee. The following are my comments relative to the silviculture document, and KW reforestation opportunities on the Hiawatha NF.

KW management provides some very strong benefits to the Hiawatha;

- Contribute to the recovery of an endangered species
- Multiple-use approach to resource management
- Support high volume and sustainable jack pine harvest
- Support Healthy Forest Initiative and fuels reduction objectives
- Benefits Hiawatha MIS and many other species of jack pine ecosystems

The KW program recently helped us withstand an appeal of the Raco project where the Defenders of Wildlife suggested we harvest fewer acres of jack pine. Our rationale to be aggressive in the establishment of KW habitat helped to justify our decision and we were upheld. Because of the desire to provide quality KW habitat, the selected alternative was the maximum jack pine harvest level alternative. KW management was also tied to the Healthy Forest Initiative, and will produce about 1,000 acres of fuels reduction target in 2005.

The amount of potential additional cost to establish KW habitat on the Hiawatha is speculative. Funding options to help pay for additional cost have not been explored. For example, KW reforestation on the Huron-Manistee NF is covered through sale design that enables KV funding to cover the cost of their KW reforestation program.

The Hiawatha must find new and creative ways to either reduce the projected cost of KW reforestation, and/or explore new approaches to funding KW reforestation. The Huron-Manistee has over 40 years of experience in managing KW reforestation, most of it without the luxury of natural regeneration. They currently establish KW habitat with their planting program (about 1,070 acres per year). The Hiawatha can and should benefit from their experience. However, a fundamental ecological difference is the cooler climate, higher water table, and richer soils of the U.P. which make natural regeneration a cheaper option for establishing KW habitat in many Hiawatha stands (see stocking survey summary below).

This is an important distinction. Natural regeneration is cheaper than planting. Since natural regeneration technique and cost does not vary based on the tree-stocking goal, there is no additional cost for establishing KW habitat through natural regeneration. However, there is an additional cost for planting to KW stocking densities since trees must be purchased. Jack pine seedlings currently cost about \$150/1000 seedlings, so

Because the Hiawatha is so successful with natural regeneration, it is hard to imagine that the Forest would have to pay \$415/acre or more, for the same stocking levels that cost the Huron \$250/acre. Logically, if we rely on natural regeneration for a portion of our program, then our costs should be less (not more) than the full-planting program of the Huron. It is not clear from the silviculture spreadsheet which reforestation costs are due to natural regeneration and which costs are due to planting. Costs would be much higher if you assume all KW acres will be hand planted. Not all KW stands need to be planted, and not all standard stocking stands are successful under natural regeneration. As clearly shown in the first table, KW stocking levels have been created on large portions of the Hiawatha without any additional cost, just by using natural regeneration techniques.

Potential additional costs are just one aspect of the issue. Seeking solutions and methods to pay any additional cost are just as important. There are proven ways to pay for the KW program which will meet timber, fuels and wildlife goals and not seriously impact the Forest's or any one program's budget.

Some possible solutions and approaches;

1. Favor natural regeneration over planting for KW. Timing of site-prep is very important (must prepare seed bed before seeds fall off slash in July/Aug). Little additional cost.
2. On KW planting sales follow the Huron-Manistee process and include red pine, hardwood or aspen in the sale to provide a species mix and help fund reforestation. Use separated sale area boundaries as necessary.
3. Meeting KW stocking levels is part of essential KV reforestation, based on NEPA decisions. KV handbook does not specify a stocking level but the NEPA decision does. Allows Forest to fund KW reforestation before pay salvage fund cost. Prioritize salvage fund payments on non-KW salvage sales.
4. On KW planting sales use stewardship contracting to reduce costs and improve natural regeneration (i.e., site prep preformed by operator prior to sale closure reduces fuels and improves timing of jack pine regeneration).
5. Continue to use adaptive management to refine techniques and reduce costs. For example, try trench and hand plant (no chop-chain) to increase survival, lower cost and provide better habitat for other grassland birds due to slash retention. Try seed-tree method, with or without burn or mechanical scarification. Try natural regeneration then wait 1-2 years to see results before hand plant.
6. Employees agree to work on solutions. Specialists from silviculture, timber, reforestation, soils and wildlife work to develop an integrated KW reforestation program on the Hiawatha. Set up initial meeting to discuss solutions and view ongoing field work.

Sincerely,

/s/ Stephen Sjogren
Stephen Sjogren
Wildlife Biologist

KW Management Costs (Where Does all the Money Go?)

Typical Scenario for Management of Jack Pine Type

costs and revenues on a per acre basis come from input data calculated for plan revision

Item*	Units	Value / Unit	Per Acre Values			Remarks
			Revenue	Cost / Distribution		
Sale Preparation Costs (MBF)	6.9	40.5		-279.45		Cost preceeds sale, not taken from revenue.
Sale of Jack pine timber (6.9 MBF @ \$86.89)	6.9	86.89	\$559.54			TRACKS vol. and transaction evidence value
Specified Road Costs (MBF)	6.9	4.04		-\$27.88		Data from transaction evidence.
Minimum to NFF (MBF)	6.9	0.5		-\$3.45		Min. required by law.
State/ County 25% Fund	25%	559.54		-\$139.89		Required by law.
TRIP Collection	10%	559.54		-\$55.95		Required by law.
KV Essential Reforestation	1	145		-\$145.00		NFMA Stocking @ appx. 600 trees/acre
Salvage Sale Fund Collection	48%	\$559.54		-\$268.58		Average % FY 2003 through 2005 JP sales
Additional Reforestation Cost to Meet KW Habitat	1	270		-\$270.00		Costs in addition to essential reforestation to stock at 1089 trees/acre
KV Other (Fisheries, Recreation, Wildlife other)	6.9	2.2		-\$15.18		Currently varying amounts but usually not much on JP sales because reforestation costs are high.
Total			\$559.54	-\$925.92		

*Costs shown in order that they must be funded from stumpage revenue

Discussion: The first point which needs to be made is that KV is not going to pay for KW management. The revenue is too low and the required costs including reforestation are too high. These costs lend credibility to the statements from employees on the Huron Manistee NF that their KV program can not pay for KW management even when they design sales trying to maximize KV collections. In the Hiawatha's typical situation shown by the above figures, receipts from stumpage "run out" during the collection of salvage sale funds. In fact most of the FY2003 through 2005 sales did not collect the needed amount of SSF funds to replenish reserves in the SSF account. The potential cost for KW management is approximately \$415 per acre or \$270 more than managing for stocking levels required by NFMA. Every acre managed for KW, where we must guarantee KW stocking levels, may cost in excess of \$270 from appropriated money or a reallocation of funds from some other resource budget. For every increased increment of acres allocated to KW management there is an increased probability that expensive treatments will be required to obtain the required stocking levels. (In other words there are some acres and years where regeneration is easily obt