Silviculture Trial Template

**Project Subject/Title:** Yellow Birch Gap Regeneration

**Contact Person:** Jeremiah Ofteahl, Asst. Forest Administrator, 715-479-5160.

**Abstract:** Regenerate yellow birch and create a new northern hardwood cohort each stand entry. Sixty-foot clearcut gaps were chosen in this stand to promote establishment of mid tolerant species such as yellow birch. The decision to convert the even-aged northern hardwood stand to an uneven-aged stand was based on the poor-quality hardwood overstory that developed due to past logging practices, followed by the removal or shorter-lived species, such as white birch and resulting retention of a sparse, poor quality maple overstory. Consequently, eutepella and nectria canker, as well as maple borer, is also prevalent in areas of this stand.

**Trial Location:** Nearest Town Road – Baker Lake Road.

| County: Vilas |
| Township: 42N Range: 9E Section: 32 |
| GPS Coordinates: Lat: N/A Long: N/A |
| Property Name: Vilas County Forest |
| Site Map: 5-13 Champion Birch |

**Baseline Stand Data:**

Presale Stand Data 2011
WisFIRS Property Code: 6400
Compartment/Stand number: 22/10
Primary Type: NH 15+^4
Secondary Type: NH 5-11^2
Age: 0
Acres: 17
Soil Type: Sayner-Rubicon complex
Habitat Type: ATD
Presale Stocking: 145 sq.ft./acre
Residual Stocking: 88 sq.ft./acre

**Prescription and Methods:** Eighteen large gaps of approximately 60' each were systematically established along a grid. Gap location was determined by evaluating
current conditions and taking advantage of natural gaps created by snag trees or releasing of established regeneration. Larger gap size was necessary to promote mid tolerant species such as yellow birch. Gaps were established on approximately 7% of the stand. After gaps were established crop trees were identified for crown release and even-aged thinning guidelines were applied on the remainder of the stand.

After the sale was cut in 2012 the site was scarified by DNR Brush Rake.

**Results:** Survival/acre, 2014 - OR 178, BY 35, MX 2400.
Survival/acre, 2016 - MX 14533, BY 18900, AQ 3800.
Survival/acre, 2017 – BY 9902, MH 6625, MR 5236, AQ 2555, OR 486, PW 319, SW 69, F 27.

**Discussion/Recommendations:** Yellow birch can be regenerated by the gap clearcut method. I would recommend establishing fewer gaps, but larger in size to aid scarification operators. Recommend 120’ gaps. Stumps also have to be cut low to efficiently operate equipment inside regeneration gaps. Anchor chain and skidder may navigate gap scarification more efficiently than a dozer and brush rake.

This area of the forest is primarily old pine and hardwood stands (100 years old) with little edge, except for roads and trails. Deer numbers are low in this area. Herbivory is not a concern for regeneration gaps at this time.
### Planting and Cultural Report

**Vilas County Forestry Department**

**Map Scale:** 1:15,840

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### Additional Remarks

- October 2013 - Brush Bake Scarring
- Canopy Cuts

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<th>Date:</th>
<th>Cultural Practices:</th>
<th>Acres</th>
<th>Cost/Acre:</th>
<th>Total Cost</th>
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<td>Brush Bake - Scarring</td>
<td></td>
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### Project Details

- **Habitat Type:** Atld
- **Soil Type:** Pauco - Pano Complex
- **Compartment/Stand Number:** 22/10
- **Legal Description:** NNE ¼ SWNE, Section 32, T42N, R42E

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### Percent Survival: 1st Year: 3rd Year: 5th Year:

- Estimated Trees/Acre: 1/ac
- Total Trees Planted:

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### Planting:

- **Species Planted:** 2013: Species Planted and Stock Age:
  - Northern Hardwoods
  - Natural Seed

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### Project Number:

- 5-13: Champion Birch - Brush Bake Cuts

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### Map Details

- **Henning Lake**
- **Baker Lake Road**

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### Additional Notes

- 6-7-15 Survival/Acre: BY 1330, MH 667, OR 722, AG 1555, MR 1333, PW 583
- 2017 Survival/Acre: BY 992, MH 6625, OR 2536, AG 2555, MR 2595, PW 69, F 72
- 5-27-15 Survival/Ace: MH 3031, MR 831
- 7-2-14 Survival/ace: OR 78/ace, BY 35/ace, and MX 2200+/ace
- 50 foot diameter gaps
- Caps - Gaps

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### Chart Details

- **Acres:** 17
- **Cost/Acre:** $365.95
- **Total Cost:** $21.73