

SFMA Planned Operations Winter 2012

SILVI_OPS_Spatial_PLAN

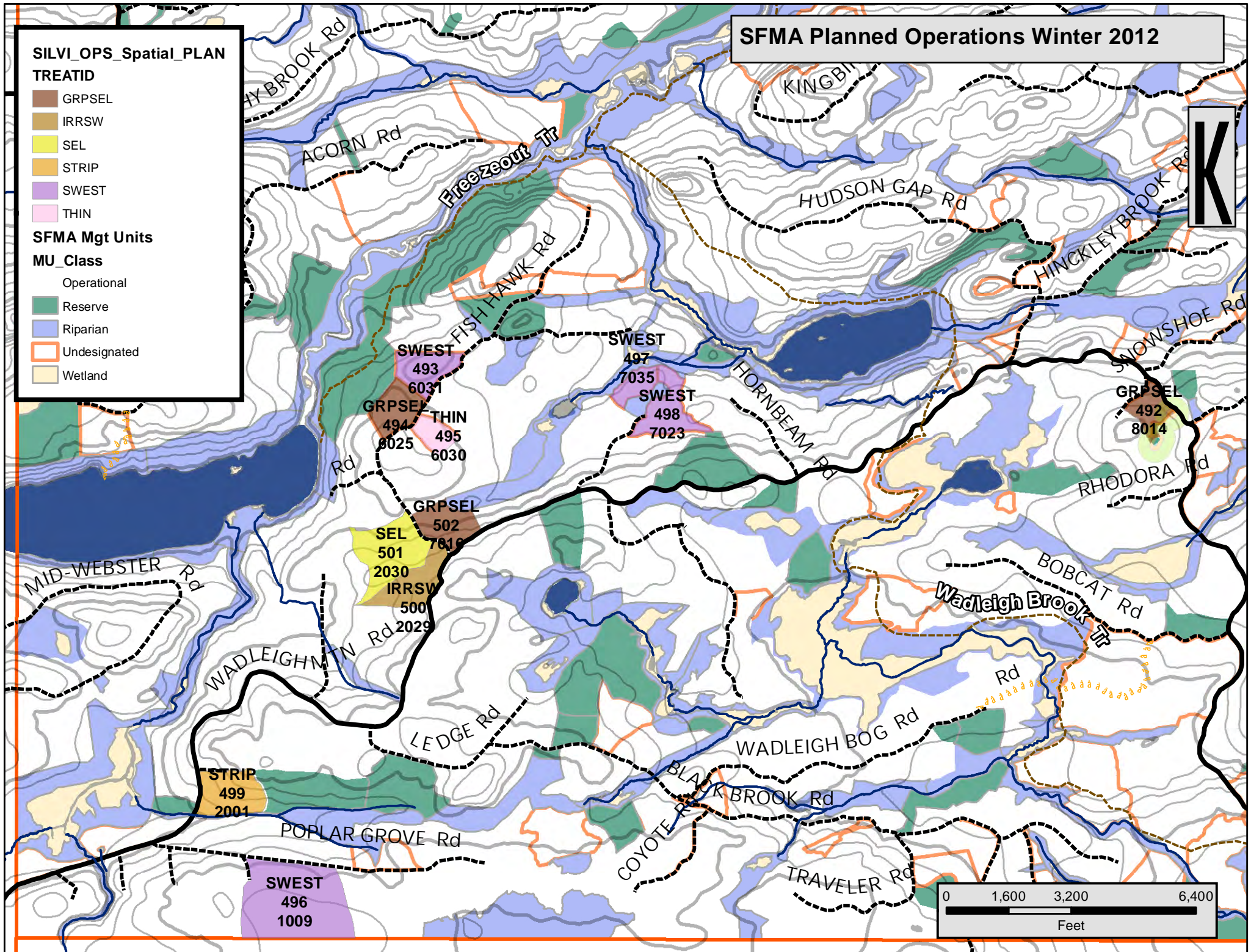
TREATID

- GRPSEL
- IRRSW
- SEL
- STRIP
- SWEST
- THIN

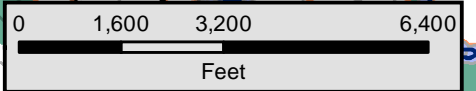
SFMA Mgt Units

MU_Class

- Operational
- Reserve
- Riparian
- Undesignated
- Wetland



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SFMA Prescription Descriptions for Silvicultural Operations in Winter 2012.

*See Prescription Description document for details about prescriptions

Op Sequence	2011 SOPID	MUID	Cover Type	Drainage Value	BA Ac	TPA	CUft Ac	SW Cuft Ac	HW Cuft Ac	GIS Acres
1	492	8014	S NH	Moderately Well drained	104.0	372.7	1799.7	431.6	1368.1	19.5
2	502	7016	S NH	Somewhat poorly drained	94.1	400.9	2045.5	775.4	1270.1	30.8
3	493	6031	S NH	Well drained	140.1	236.2	3188.6	1642.8	1545.8	30.5
4	495	6030	NH	Somewhat poorly drained	59.8	199.6	987.6	136.9	850.6	16.3
5	494	6025	S NH	Somewhat poorly drained	168.8	370.4	3844.2	2106.6	1737.6	30.1
6	501	2030	S NH	Moderately Well drained	74.8	384.9	1375.1	585.3	789.9	46.9
7	496	1009	S	Somewhat poorly drained	144.5	452.6	3018.4	2577.1	441.3	116.5
8	500	2029	S IH	Poorly drained	112.7	708.1	1988.2	1102.0	886.2	46.0
9	498	7023	S	Poorly drained	206.6	881.4	4009.2	3307.8	701.5	35.6
10	497	7035	S IH	Somewhat poorly drained	249.6	1996.5	2878.7	1412.2	1466.5	16.6
11	499	2001	S	Moderately Well drained	269.8	2637.9	4196.4	3417.7	778.7	39.7

SFMA Prescription Descriptions for Silvicultural Operations in 2012.

*See MU data table for detailed statistics about SOPID/MUID.

Operation Sequence: 1

SOPID: 488 MUID: 8014 Season: Winter

Treatment Code: IRRGRPSW

Irregular Group Shelterwood (Variable Sized Gaps less than 1ac)

Objective: Create canopy openings of diverse diameters ranging from 50ft in diameter to 200+ft in order to regenerate a fixed amount of area based on area control approach to multi-aged management for the MU. *MU is adjacent to vernal pool and silvicultural approach designed to follow [forestry habitat management guidelines for vernal pool wildlife](#).

Treatment Details:

MU History: Area has not seen harvest within last 80 years. Area was burned in approximately 1900, resulting in mixed-wood with aspen/birch stand type.

Silviculture: Area control based treatment in mixed wood stand designed to create canopy openings of various sizes in order to establish or release cohort of diverse species within openings. Gaps should be arranged to release advance regeneration and/or establish a new cohort of mostly tolerant to mid-shade tolerant species. **Protect** advance regeneration where present. Retention trees are marked (see below).

Area control based on assumed 120-140 year rotation, 5 entries in total, return interval of 20yrs: divide total area 20 acres by 5 entries = results approximate 4 acres regenerated in current entry. Subsequent entries can be arranged to expand existing gaps or establish distinct canopy gaps.

***Special Considerations:** MU is adjacent to vernal pool and silvicultural approach designed to follow [forestry habitat management guidelines for vernal pool wildlife](#) (FHMGVPW). No harvest within 100ft of pool. Maintain >50% canopy closure within 400ft of pool. Follow retention guidelines (see below). See FHMGVPW guidelines for more information.

Layout: MU boundaries have been flagged in orange. Gaps will be pre-defined by SFMA staff, all gap boundaries are flagging (pink or orange stripe), GPS polygons will be provided to operator.

Harvest Trails: Main equipment trails are flagged in blue, side trails to gaps are flagged. Main trails are spaced approximately 300ft apart

Retention: Retain all wildlife trees marked with a “W”, if harvested replace with surrogate if feasible. Within canopy openings **retain** all RS <10” with acceptable live crowns. For biodiversity and wildlife habitat reasons retain approximately **5 live** trees per acre (200ft X 200ft) of a range of species larger than 12” with 1 tree larger than 18”. White pine, hemlock, and hardwood greater than 24” make good retention candidates. These trees have been marked in **RED or YELLOW** paint. If a marked retention tree must be cut, a suitable replacement should be left in its place. Retain all dead trees where **operator safety** allows. Preserve large dead down wood where feasible.

MUID 8003

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SFMA Planned Operations Winter 2011/12 SOPID 485

MUID 8013

REDBACK Rd

1.1 ac

0.6 ac

MUID 8014

0.4 ac

0.3 ac

MUID 8006

WADLEIGH MTN Rd

MUID 8007

MUID 8061

MUID RMZ149

FROST POND Rd

MUID 8030

MUID 8017

0.5 ac

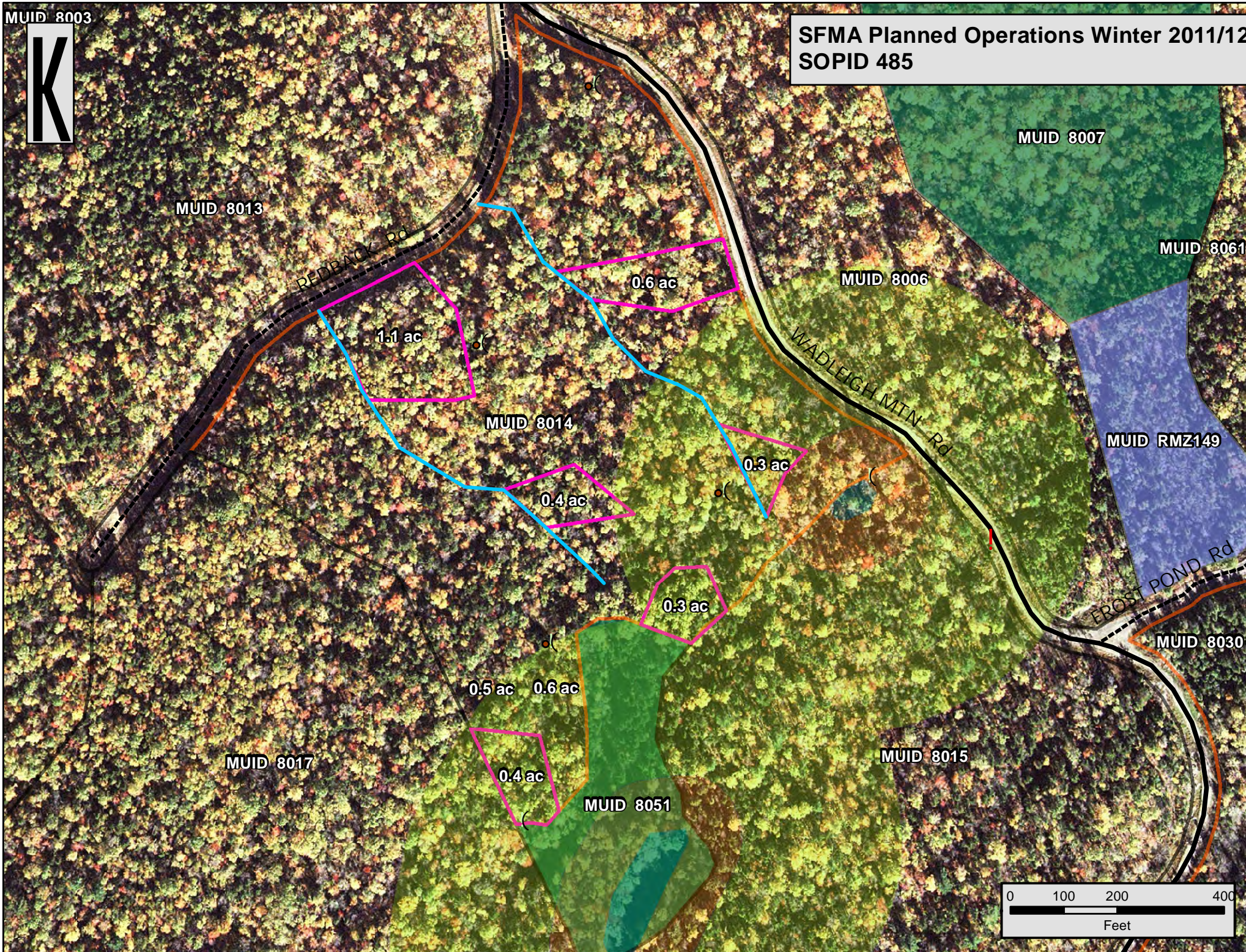
0.6 ac

0.3 ac

0.4 ac

MUID 8051

MUID 8015



SFMA Prescription Descriptions for Silvicultural Operations in 2012.

*See MU data table for detailed statistics about SOPID/MUID.

Operation Sequence: 2

SOPID: 502 MUID: 7016 Season: Winter

Treatment Code: IRRGRPSW

Irregular Group Shelterwood (Variable Sized Gaps less than 1ac)

Objective: Create canopy openings of diverse diameters ranging from 50ft in diameter to 200+ft in order to regenerate a fixed amount of area based on area control approach to multi-aged management for the MU.

Treatment Details:

MU History: MUID was partial harvested in early 1980s creating scattered areas of well formed and established YB, RM, SM, RS, with HH and ST also present.

Silviculture: Current operation targets areas not previously regenerated and/or those areas with regeneration requiring release. Area control based treatment in mixed wood stand designed to create canopy openings of various sizes in order to establish or release cohort of diverse species within openings. Gaps should be arranged to release advance regeneration and/or establish a new cohort of mostly tolerant to mid-shade tolerant species. **Protect** advance regeneration where present. Area control based on assumed 120-140 year rotation, 5 entries in total, return interval of 20yrs: divide total area 30 acres by 5 entries = approximate 6 acres regenerated in current entry. Subsequent entries can be arranged to expand existing gaps or establish distinct canopy gaps.

Layout: MU boundaries have been flagged in orange. Gaps will be pre-defined by SFMA staff, all gap boundaries are flagging (pink or orange strip), GPS polygons will be provided to operator. Retention trees are marked, see below.

Harvest Trails: Main equipment trails are flagged in blue, side trails to gaps are flagged. Main trails are spaced approximately 300ft apart

Retention: Retain all wildlife trees marked with a “W”, if harvested replace with surrogate if feasible. Within canopy openings **retain** all RS <10” with acceptable live crowns. For biodiversity and wildlife habitat reasons retain approximately **5 live** trees per acre (200ft X 200ft) of a range of species larger than 12” with 1 tree larger than 18”. White pine, hemlock, and hardwood greater than 24” make good retention candidates. These trees have been marked in **RED or YELLOW** paint. If a marked retention tree must be cut, a suitable replacement should be left in its place. Retain all dead trees where **operator safety** allows. Preserve large dead down wood where feasible.

SFMA Planned Operations Winter 2012

SILVI_OPS_Spatial_PLAN

TREATID

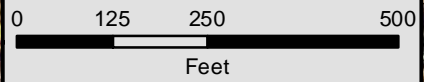
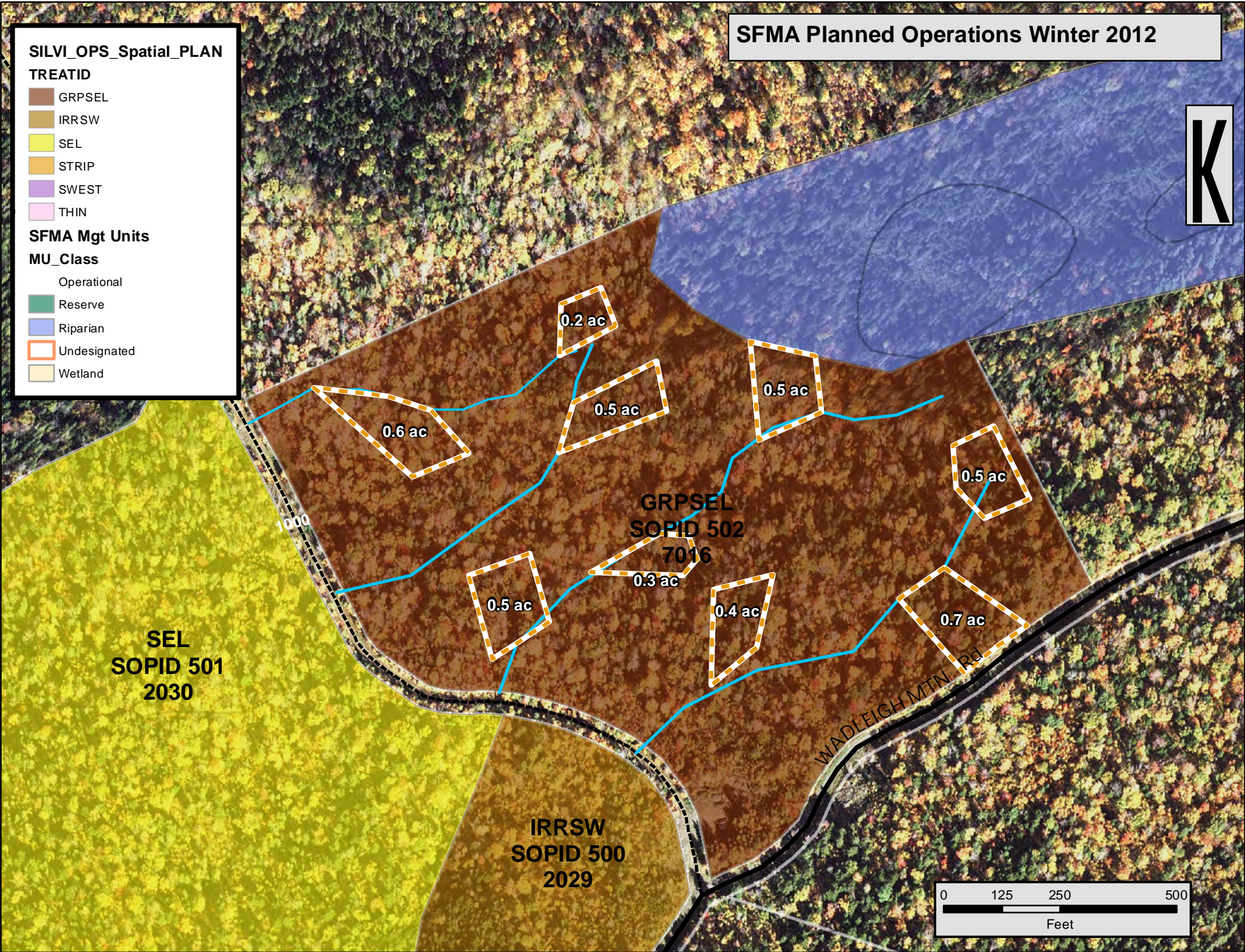
- GRPSEL
- IRRSW
- SEL
- STRIP
- SWEST
- THIN

SFMA Mgt Units

MU_Class

- Operational
- Reserve
- Riparian
- Undesignated
- Wetland

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SFMA Prescription Descriptions for Silvicultural Operations in 2012.

*See MU data table for detailed statistics about SOPID/MUID.

Operation Sequence: 3

SOPID: 494 MUID: 6025 Season: Winter

Treatment Code: IRRGRPSW

Irregular Group Shelterwood (Variable Sized Gaps less than 1ac)

Objective: Create canopy openings of diverse diameters ranging from 50ft in diameter to 200+ft in order to regenerate a fixed amount of area based on area control approach to multi-aged management for the MU.

Treatment Details:

MU History: Area has not seen harvest within last 75 years. Likely harvested pre1900 for WP and potentially in 1930-40s for RS and HDW.

Silviculture: Current operation targets both areas without existing regeneration and those areas with regeneration requiring release. Area control based treatment in mixed wood stand designed to create canopy openings of various sizes in order to establish or release cohort of diverse species within openings. Gaps should be arranged to release advance regeneration and/or establish a new cohort of mostly tolerant to mid-shade tolerant species. **Protect** advance regeneration where present. Area control based on assumed 120-140 year rotation, 5 entries in total, return interval of 20yrs: divide total area 30 acres by 5 entries = approximate 6 acres regenerated in current entry. Subsequent entries can be arranged to expand existing gaps or establish distinct canopy gaps.

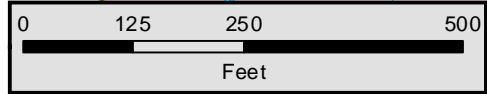
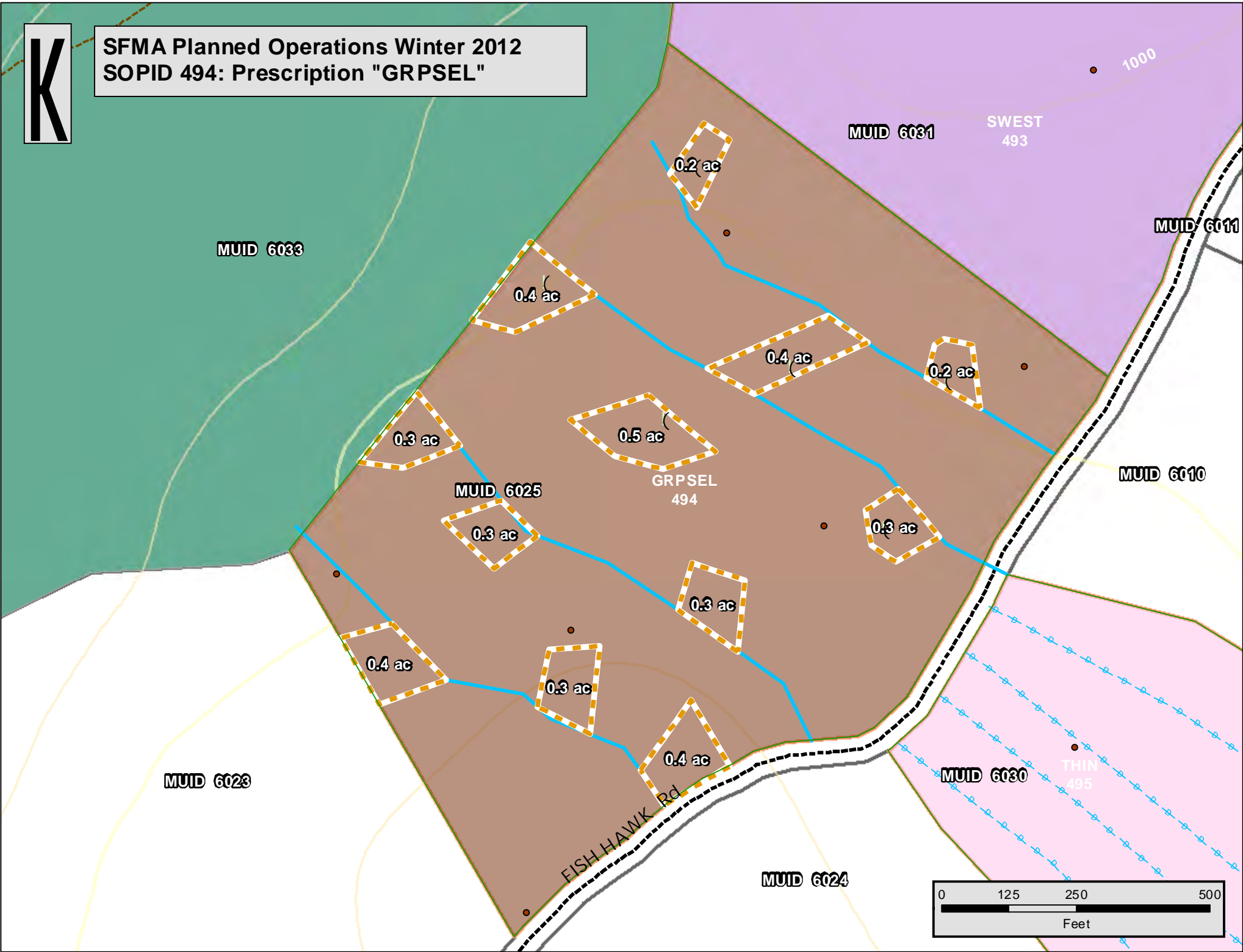
Layout: MU boundaries have been flagged in orange. Gaps will be pre-defined by SFMA staff, all gap boundaries are flagging (pink or orange strip), GPS polygons will be provided to operator. Retention trees are marked, see below.

Harvest Trails: Main equipment trails are flagged in blue, side trails to gaps are flagged. Main trails are spaced approximately 300ft apart

Retention: Retain all wildlife trees marked with a “W”, if harvested replace with surrogate if feasible. Within canopy openings **retain** all RS <10” with acceptable live crowns. For biodiversity and wildlife habitat reasons retain approximately **5 live** trees per acre (200ft X 200ft) of a range of species larger than 12” with 1 tree larger than 18”. White pine, hemlock, and hardwood greater than 24” make good retention candidates. These trees have been marked in **RED or YELLOW** paint. If a marked retention tree must be cut, a suitable replacement should be left in its place. Retain all dead trees where **operator safety** allows. Preserve large dead down wood where feasible.

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SFMA Planned Operations Winter 2012
SOPID 494: Prescription "GRPSEL"



SFMA Prescription Descriptions for Silvicultural Operations in 2012.

***See MU data table for detailed statistics about SOPID/MUID.**

Operation Sequence: 5

SOPID: 495 MUID: 6030 Season: Winter

Treatment Code: THIN

Intermediate Treatment Thinning

Objective: MU is dominated by small to medium sized poles with some larger mature stems. Reallocate growing space to stems with best form and crown position in order to increase growth on residual growing stock. Not intended as a regeneration treatment, though crown openings will likely stimulate new regeneration.

Treatment Details:

MU History: MUID was partial harvested in early 1980s, well formed pole and sawlog stand is the result YB, RM, RS, with HH and ST also present. Significant residual damage from past harvest presents barrier to future quality.

Silviculture: Uniform intermediate treatment thinning in mixed-wood pole to small sawlog stand type. Removals focus on suppressed, intermediate, poorly formed co-dominants, and high risk trees. Treatment will reallocate growing space to best stems. YB, SM, RM, and RS are preferred species to retain. Removals will target the 8-6 size class with removals of larger stems in high risk trees. Next entry likely to take place in 15-25 years.

***Special Considerations:** MU contains raptor nest located during field inventory. Tree has been flagged in orange and not trees have been marked within 75 feet. See management recommendations from Biodiversity in the Forests of Maine: Guidelines for Land Management 1999, p75-78, for more information.

During the raptor nesting season (February to July), avoid forest management activities within 0.25 mi. (0.4 km) of known, active raptor nests, and avoid recreational use of logging roads within sight of active nests (Call 1979, NHFSSWT 1997).	Maintain an uncut buffer of at least 66 feet around known raptor nest trees and retain 65 to 85 percent canopy closure within 165 feet of large stick nests in closed-canopy forest (Elliott 1988).
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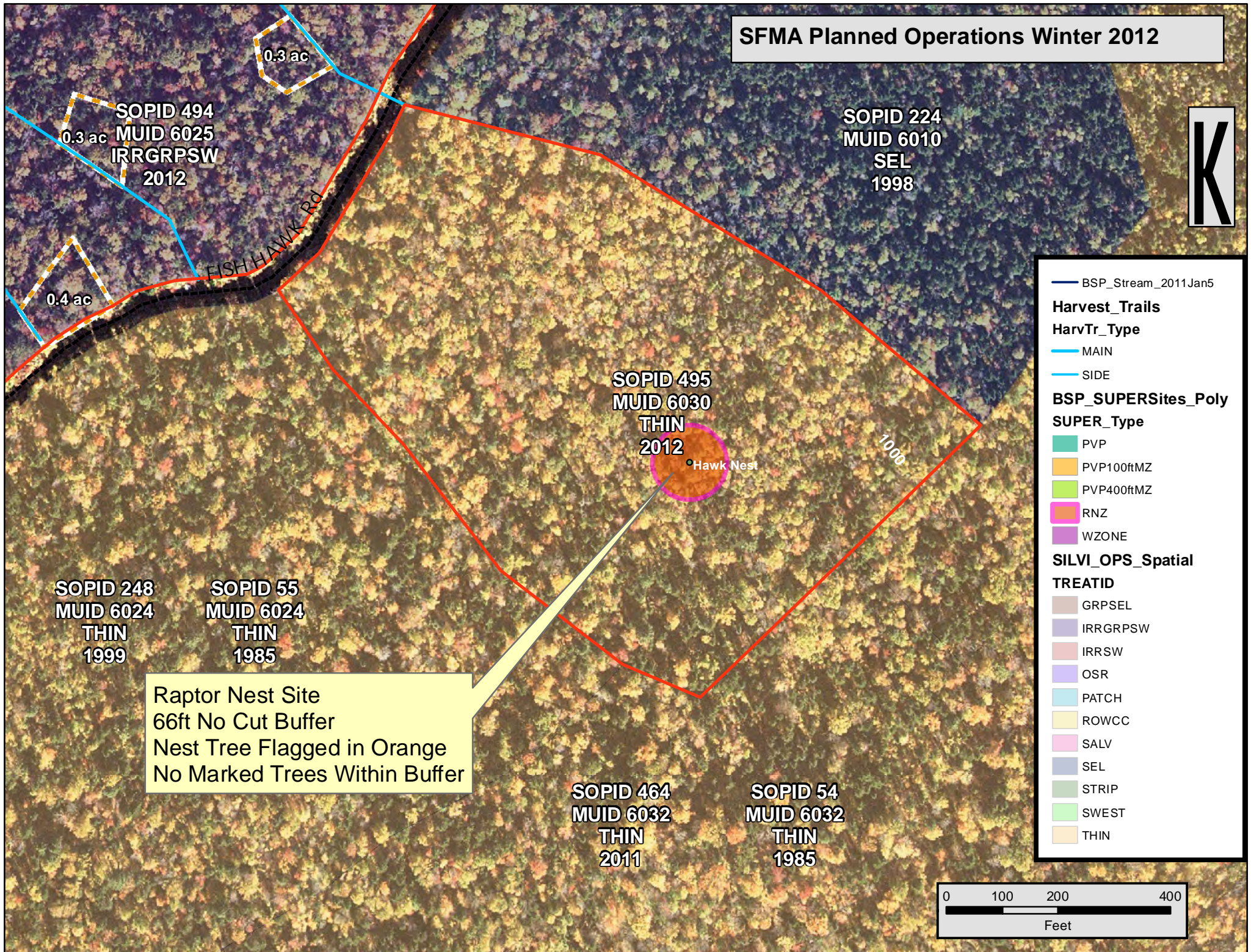
Layout: MU boundaries have been flagged in orange. MU has been **marked to CUT in blue.**

Harvest Trails: Travel on existing harvest trails where feasible and obvious, otherwise establish new trails as appropriate to minimize residual stand damage and area in trails.

Retention: Retain all wildlife trees marked with a “W”, if harvested replace with surrogate if feasible. Within canopy openings **retain** all RS <10” with acceptable live crowns. For biodiversity and wildlife habitat reasons retain approximately **5 live** trees per acre (200ft X 200ft) of a range of species larger than 12” with 1 tree larger than 18”. White pine, hemlock, and hardwood greater than 24” make good retention candidates. Retain all dead trees where **operator safety** allows. Preserve large dead down wood where feasible.

SFMA Planned Operations Winter 2012

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SOPID 494
MUID 6025
IRRGRPSW
2012

0.3 ac

0.3 ac

0.4 ac

FISH HAWK Rd

SOPID 224
MUID 6010
SEL
1998

SOPID 495
MUID 6030
THIN
2012

Hawk Nest

1000

SOPID 248
MUID 6024
THIN
1999

SOPID 55
MUID 6024
THIN
1985

Raptor Nest Site
66ft No Cut Buffer
Nest Tree Flagged in Orange
No Marked Trees Within Buffer

SOPID 464
MUID 6032
THIN
2011

SOPID 54
MUID 6032
THIN
1985

— BSP_Stream_2011Jan5

Harvest_Trails
HarvTr_Type

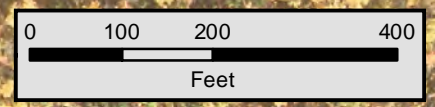
- MAIN
- SIDE

BSP_SUPERsites_Poly
SUPER_Type

- PVP
- PVP100ftMZ
- PVP400ftMZ
- RNZ
- WZONE

SILVI_OPS_Spatial
TREATID

- GRPSEL
- IRRGRPSW
- IRRSW
- OSR
- PATCH
- ROWCC
- SALV
- SEL
- STRIP
- SWEST
- THIN



SFMA Prescription Descriptions for Silvicultural Operations in 2012.

*See MU data table for detailed statistics about SOPID/MUID.

Operation Sequence: 4

SOPID: 493 MUID 6031 Season: Winter

Treatment Code: SWEST

Shelterwood Establishment (Light harvest to stimulate new regeneration)

Objective: Uniform removal of 30-40% of canopy intended to enable establishment and/or release of seedling sized cohort as first part of multi stage shelterwood system in mixed-wood stand type.

Treatment Details:

MU History: Area has not seen harvest within last 75 years. Likely harvested pre1900 for WP and potentially in 1930-40s for RS and HDW.

Silviculture: *Stand has **not** been marked and harvest selections should be based on the following description.* Uniformly remove 30-40% of canopy across MU. Reduce basal area to about 80-100ft² (pre-harv BA = 140ft²). Intention is to allow sufficient sun light to reach forest floor to enable establishment and/or release of a seedling sized cohort. **Harvest should target:**
1. Trees with weak crowns (less than 30% of total height with live crown) or showing signs of imminent mortality. **2.** Trees in the mid-story which have been outcompeted by more dominant neighboring trees. **3.** Species to target for removal include: balsam fir, white birch, red maple, aspen. Trees to leave standing include those with strong crowns, red spruce, yellow birch, sugar maple, white pine, and hemlock. **Protect** advance regeneration where present. Subsequent entries will release regeneration established in current entry as part of shelterwood overstory removal or irregular shelterwood system. Next entry likely to take place in 15-25 years.

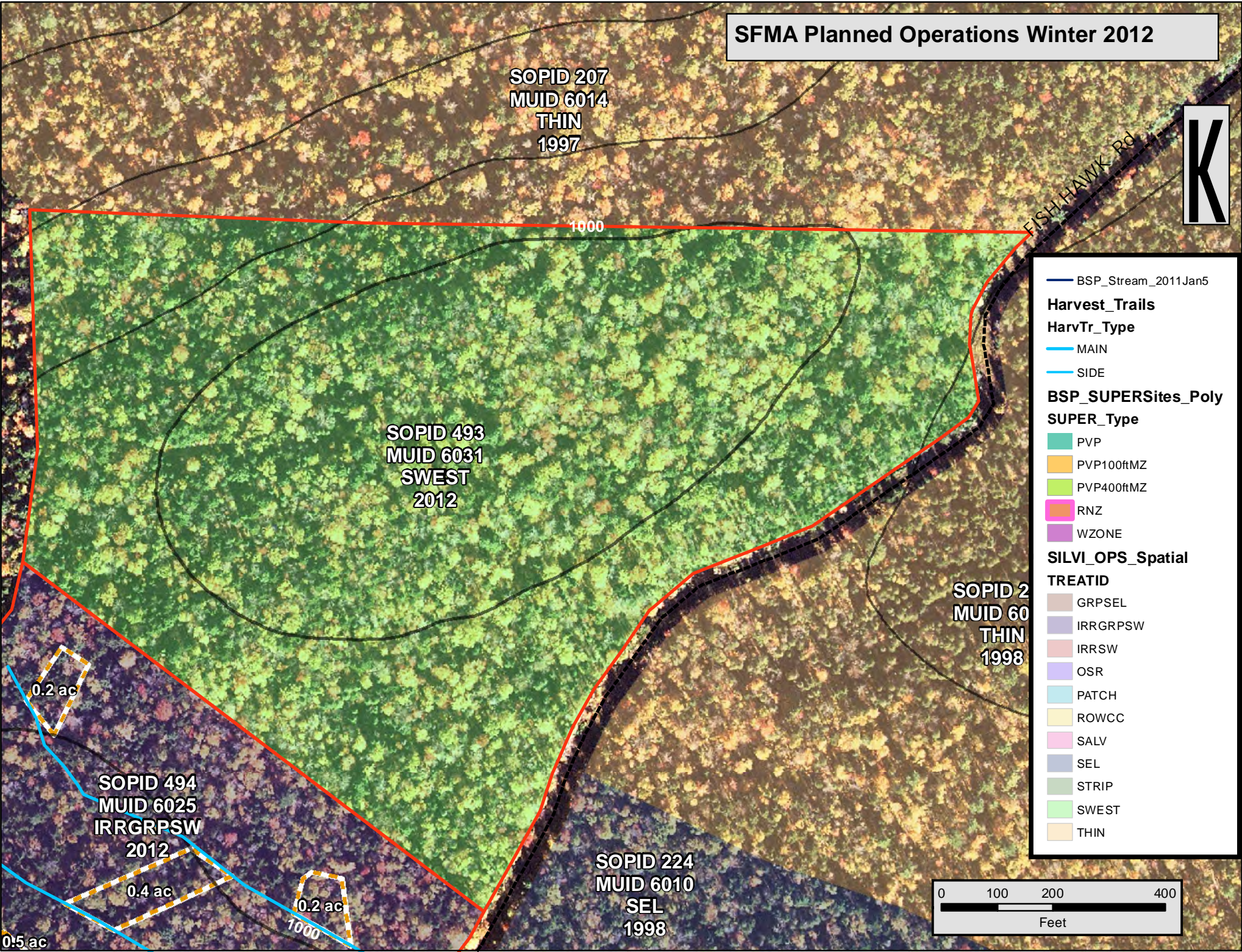
Layout: MU boundaries have been flagged in orange. Stand has **NOT** been marked and harvest selections should be based on the silvicultural description above.

Harvest Trails: Trails should be spaced at maximum distance to permit equipment reaches covering entire MU, ideal spacing is 60ft or greater. *Trails have not been flagged in advance.

Retention: Retain all wildlife trees marked with a “**W**”, if harvested replace with surrogate if feasible. **Retain** all RS <10” with acceptable live crowns. For biodiversity and wildlife habitat reasons retain approximately **5 live** trees per acre (200ft X 200ft) of a range of species larger than 12” with 1 tree larger than 18”. White pine, hemlock, and hardwood greater than 24” make good retention candidates. If a marked retention tree must be cut, a suitable replacement should be left in its place. Retain all dead trees where **operator safety** allows. Preserve large dead down wood where feasible.

SFMA Planned Operations Winter 2012

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SFMA Prescription Descriptions for Silvicultural Operations in 2012.

*See MU data table for detailed statistics about SOPID/MUID.

Operation Sequence: 7

SOPID: 496 **MUID** 1009 **Season:** Winter

Treatment Code: SWEST

Shelterwood Establishment (Light harvest to stimulate new regeneration)

Objective: Uniform removal of 30-40% of canopy intended to enable establishment and/or release of seedling sized cohort as first part of multi stage shelterwood system in softwood stand type.

Treatment Details:

MU History: Area has not seen harvest within last 75 years. Likely harvested pre1900 for WP and potentially in 1930-40s for RS and HDW.

Silviculture: *Stand has **not** been marked and harvest selections should be based on the following description.* Uniformly remove 30-40% of canopy across MU. Reduce basal area to about 80-100ft² (pre-harv BA = 144ft²). Intention is to allow sufficient sun light to reach the forest floor to enable establishment and/or release of a seedling sized cohort. **Harvest should target:** **1.** Trees with weak crowns (less than 30% of total height with live crown) or showing signs of imminent mortality. **2.** Trees in the mid-story which have been outcompeted by more dominant neighboring trees. **3.** Species to target for removal include: balsam fir, white birch, red maple, aspen. Trees to leave standing include those with strong crowns, red spruce, yellow birch, sugar maple, white pine, and hemlock. **Protect** advance regeneration where present. Subsequent entries will release regeneration established in current entry as part of shelterwood overstory removal or irregular shelterwood system. Next entry likely to take place in 15-25 years.

Layout: MU boundaries have been flagged in orange. Stand has **NOT** been marked and harvest selections should be based on the silvicultural description above.

Harvest Trails: Trails should be spaced at maximum distance to permit equipment reaches covering entire MU, ideal spacing is 60ft or greater. *Trails have not been flagged in advance.

Retention: Retain all wildlife trees marked with a “**W**”, if harvested replace with surrogate if feasible. **Retain** all RS <10” with acceptable live crowns. For biodiversity and wildlife habitat reasons retain approximately **5 live** trees per acre (200ft X 200ft) of a range of species larger than 12” with 1 tree larger than 18”. White pine, hemlock, and hardwood greater than 24” make good retention candidates. If a marked retention tree must be cut, a suitable replacement should be left in its place. Retain all dead trees where **operator safety** allows. Preserve large dead down wood where feasible.

**SFMA Planned Operations Winter 2012
SOPID 496: Prescription "SWEST"**

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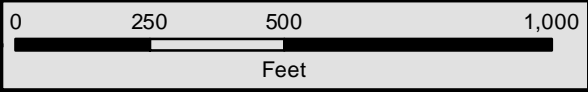
POPLAR GROVE Rd

NO NAME SPUR Rd

1100

This trail is optional but not necessarily needed. Operators call.

**SWEST
SOPID 496
1009**



SFMA Prescription Descriptions for Silvicultural Operations in 2012.

*See MU data table for detailed statistics about SOPID/MUID.

Operation Sequence: 8

SOPID: 500 MUID: 6025 Season: Winter

Treatment Code: IRRSW

Irregular Shelterwood



Objective: Stand has irregular distribution of multiple stand conditions that require *either*: OSR, Shelterwood establishment, or thinning. Each of these conditions will be treated individually. In OSR areas maintain scattered retention trees for wildlife and biodiversity objectives.

Treatment Details:

MU History: MUID was partial harvested in early 1980s creating scattered areas of well formed and established YB, RM, RS, with HH and ST also present.

Silviculture: **Condition 1:** Where advance regeneration greater than 16ft in height **is well** established, remove all overstory except retention trees (see below). **Condition 2:** Where advance regeneration is less than 16ft in height **is NOT well** established, uniformly removed 25-50% of overstory to culture/establish regeneration (ideal condition has 85-95ft² of BA retained). **Condition 3:** Where stand is dominated by merchantable poles/small sawlog sized trees (<14" avg dbh) **THIN** stems based on, crown vigor, stem quality, species preferences, and canopy position. Next entry likely to take place in 15-25 years.

Layout: MU boundaries have been flagged in orange.

Harvest Trails: Travel on existing harvest trails where feasible and obvious, otherwise establish new trails as appropriate to minimize residual stand damage and area in trails.

Retention: Retain all wildlife trees marked with a "W", if harvested replace with surrogate if feasible. Within canopy openings **retain** all RS <10" with acceptable live crowns. For biodiversity and wildlife habitat reasons retain approximately **5 live** trees per acre (200ft X 200ft) of a range of species larger than 12" with 1 tree larger than 18". White pine, hemlock, and hardwood greater than 24" make good retention candidates. Retain all dead trees where **operator safety** allows. Preserve large dead down wood where feasible.

SFMA Prescription Descriptions for Silvicultural Operations in 2012.

*See MU data table for detailed statistics about SOPID/MUID.

Operation Sequence: 6

SOPID: 501 MUID 2030 Season: Winter

Treatment Code: SEL

Single Tree Selection (Light harvest to develop multiple age classes)

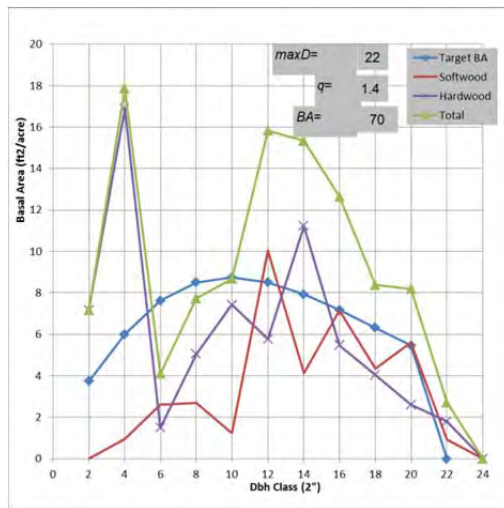


Objective: Uniform removal of 30-40% of canopy designed to culture multiple age classes uniformly across MU.

Treatment Details:

MU History: MUID was partial harvested in early 1980s, well formed pole and sawlog stand is the result, YB, RM, SM, RS, with HH and ST also present. Significant residual damage from past harvest presents barrier to future quality.

Silviculture: Uniform harvest cutting through the diameters in mixed-wood stand type with two or more age classes already present. Removals focus on suppressed, intermediate, poorly formed



co-dominants, and high risk trees. Removals focus on stems in the 10-18" diameter classes. Figure at left displays current diameter distribution by BA, as well as target BA post-harvest. Factors used in BDq approach to single tree selection treatment planning include: Max Diameter = 22; Residual BA=70;Q-Factor=1.4.

Treatment will simultaneously reallocate growing space to best stems, provide opportunities for establishment of a new cohort, and release of established sapling/pole classes. YB, SM, RM, and RS are preferred species to retain. Removals of larger stems will focus on high risk trees where mortality is likely before the next entry. Next entry likely to take place in 15-25 years.

***Special Considerations:** Scattered red spruce 19-22" DBH have been identified as potentially containing instrument grade material. These trees generally show signs of decline like thinning crowns. Trees should be felled carefully to ensure the lower log is not degraded by splitting or fiber pull in the felling process, likely requiring hand felling. Logs should be cut as long as possible up to ensure maximum potential for specialty product class. In advance, trees have been recorded with GPS and marked with **BLUE** paint and **PINK** flagging.

Layout: MU boundaries have been flagged in orange. MU has been **marked to CUT in blue.**

Harvest Trails: Trails should be spaced at maximum distance to permit equipment reaches covering entire MU, ideal spacing is 60ft or greater. *Trails have not been flagged in advance.

Retention: Retain all wildlife trees marked with a "W", if harvested replace with surrogate if feasible. **Retain** all RS <10" with acceptable live crowns. For biodiversity and wildlife habitat reasons retain approximately **5 live** trees per acre (200ft X 200ft) of a range of species larger than 12" with 1 tree larger than 18". White pine, hemlock, and hardwood greater than 24" make good retention candidates. If a marked retention tree must be cut, a suitable replacement should be left in its place. Retain all dead trees where **operator safety** allows. Preserve large dead down wood where feasible.